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Relationship between anger expression and coping strategies in women experiencing pregnancy loss: A longitudinal follow-up study

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Abstract

This study examined the relationship between anger, anger expression styles, and coping strategies during the grieving process in women who experienced pregnancy loss. This descriptive correlational study included 260 women. Data were collected using a Personal Information Form, the Perinatal Grief Scale, the Trait Anger and Anger Expression Style Scale, and the Coping Strategies Scale. Statistically significant differences were found between the first and second follow-up assessments in mean scores for perinatal grief, trait anger, anger-in, anger-out, and anger control ($p < 0.05$). Significant differences were also observed in the problem-solving, seeking social support, and avoidance subscales of the Coping Strategies Scale between the two follow-ups ($p < 0.05$). One month after pregnancy loss, women demonstrated reductions in grief, trait anger, anger expression scores, and the use of coping strategies. These findings indicate that emotional responses and coping patterns may change considerably during the early period following pregnancy loss. Healthcare professionals should closely assess grief, anger, and coping responses and provide individualized psychosocial support. Integrating routine psychological screening, counseling, and multidisciplinary follow-up into post-loss care may facilitate early identification of women requiring additional support and contribute to improved emotional adjustment and maternal well-being during this vulnerable period and support healthier adaptation to loss overall. (*Afr J Reprod Health* 2026; 30 [18]: 60-70).

Keywords : Perinatal bereavement; emotional regulation; psychological adjustment; stress response; psychosocial support

Résumé

Cette étude a examiné la relation entre la colère, les modes d'expression de la colère et les stratégies d'adaptation au cours du processus de deuil chez des femmes ayant subi une perte de grossesse. Cette étude descriptive et corrélative a porté sur 260 femmes. Les données ont été recueillies à l'aide d'un formulaire de renseignements personnels, de l'Échelle de deuil périnatal, de l'Échelle de colère-trait et de mode d'expression de la colère, ainsi que de l'Échelle des stratégies d'adaptation. Des différences statistiquement significatives ont été relevées entre le premier et le second suivi concernant les scores moyens de deuil périnatal, de colère-trait, de colère intériorisée, de colère extériorisée et de contrôle de la colère ($p < 0,05$). Des différences significatives ont également été observées entre les deux suivis pour les sous-échelles de résolution de problèmes, de recherche de soutien social et d'évitement de l'Échelle des stratégies d'adaptation ($p < 0,05$). Un mois après la perte de grossesse, les femmes présentaient une diminution des scores de deuil, de colère-trait, d'expression de la colère et du recours aux stratégies d'adaptation. Ces résultats indiquent que les réponses émotionnelles et les modes d'adaptation peuvent évoluer considérablement durant la période suivant immédiatement la perte de grossesse. Les professionnels de santé devraient évaluer attentivement le deuil, la colère et les stratégies d'adaptation, et proposer un soutien psychosocial personnalisé. L'intégration d'un dépistage psychologique systématique, d'un accompagnement et d'un suivi pluridisciplinaire dans les soins post-perte pourrait faciliter le repérage précoce des femmes nécessitant un soutien accru, favoriser un meilleur ajustement émotionnel et le bien-être maternel durant cette période de vulnérabilité, et soutenir globalement une adaptation plus saine à la perte.. (*Afr J Reprod Health* 2026; 30 [18]:60-70).

Mots-clés: Deuil périnatal ; régulation émotionnelle ; ajustement psychologique ; réponse au stress ; soutien psychosocial

Introduction

Pregnancy loss is a worldwide phenomenon affecting millions of women every year (Berry et al.). As one of the most critical complications of

pregnancy, infant loss affects the woman, family and society.^{1,2} Approximately one in four pregnancies in the world ends in miscarriage, 2.6 million babies are stillborn annually, and these deaths are more common in low- and middle-

income countries.³ According to the Türkiye Demographic and Health Survey (TDHS), the spontaneous abortion rate was reported as 22% and the perinatal mortality rate as 11%.⁴

Pregnancy loss, which is considered a traumatic experience, is a painful event and women develop a sense of grief.^{1,3,5,6} Grief after pregnancy loss is a process that goes through different stages, can last for a few months or a few years, and changes over time.⁷ A study found that more than half of women (54.7%) developed complicated grief after miscarriage.⁸ The lack of culturally accepted mourning rituals for pregnancy loss causes women to feel neglected during the mourning process.⁹ The grief process due to pregnancy loss is different for each individual, complex and often goes unrecognized.¹⁰ The grief process is more difficult when it is not recognized and cared for by families.^{9,11}

Women who experience pregnancy loss may experience different emotional changes and psychological problems, such as shock, difficulty in concentration, recurrent thoughts about the event, guilt, social isolation, grief, stress, anxiety, hopelessness, depression, and anger.^{1,2,5,8,12} In a study, it was reported that 7.8% of women who experienced pregnancy loss felt guilty, and 3.9% had feelings of anger.¹³ The anger of the woman who lost her baby can be directed toward the baby, her husband, health professionals or God. If anger is suppressed, depression, fear, grief, guilt, anxiety and stress-related diseases can be seen.¹⁴ Reactions after pregnancy loss are personal. They differ depending on factors, such as religion, culture, race, age, gender, time of pregnancy and support mechanisms.^{8,10,15} Individuals may somatize their distress because open expression of emotions experienced in case of loss is not considered appropriate in some cultures.⁸ Lack of social support, low socio-economic status and lack of coping strategies may prolong the grieving process.⁷ Therefore, the support of family members and coping strategies of women are important in coping with loss.^{6,16} In a study, 74% of women who experienced pregnancy loss stated that social support from friends and spending time with them was one of the most effective ways to cope with problems.¹² Since maternal and infant mortality rates related to pregnancy loss indicate the level of

development in health, it is important to reduce these rates in Türkiye and the world.¹⁷ Health services for mother and baby, accessibility to services and effective use of services are important in reducing neonatal mortality.¹⁸ During the mourning process after pregnancy loss, anger and difficulty in coping with problems affect the next pregnancy and cause uncertainty and anxiety.¹⁹ It is crucial to evaluate the grief phenomenon in women experiencing pregnancy loss, address the psychological aspects of this process, provide support to the woman and her family, develop effective coping strategies and follow up frequently to reduce the risk of long-term grief. In addition, the physical and mental health of the woman and the fetus in subsequent pregnancies is protected.^{10,12,13,15}

In the literature, there are national and international studies investigating the grief process in women experiencing pregnancy loss^{1,5,12,13,15,19-21} but, to our knowledge, there are no studies directly investigating anger and coping strategies. This study was conducted to examine the relationship between anger, anger expression styles and coping strategies in the mourning process in women who experienced pregnancy loss and to monitor the process. In this context, we raised the following research questions:

1. Is there a difference in the grief levels of women who experienced pregnancy loss between the follow-ups?
2. Is there a difference in the anger and anger expression styles of women who experienced midwifery loss between the follow-ups?
3. Is there a difference in the coping strategies of women who experienced pregnancy loss between the follow-ups?
4. Is there a relationship between the grief process, anger and anger expression styles, and coping strategies in women who experienced pregnancy loss?

Methods

Design

The study was a descriptive and correlational study, that investigated the relationship between anger, anger expression styles, and coping strategies

during the grief process in women who experienced pregnancy loss.

Setting and sample

The sample of this study consisted of women who were admitted to the Pregnancy and Gynecology Service of a state hospital in the Central Anatolia Region of Türkiye with a diagnosis of pregnancy. G*Power 3.1 program was used to determine the sample.²² Considering the data (margin of error 5%, confidence interval 80%) of the study conducted by Gozuyesil (2022),²³ the study sample was calculated using the F test three-scale relationship model. Accordingly, the effect size was calculated as 218 people with $f^2=0.5$, a confidence interval of 80% ($1-\beta=0.80$) and a margin of error of 5%, and this study was completed with 260 people considering possible data loss (20% data loss). According to the posthoc power analysis at the end of this study, a power of 0.87 ($1-\beta=0.87$) was reached with 260 participants. Data were collected between June 01, 2022 and May 30, 2023.

Inclusion and exclusion criteria

This study was conducted with primigravida women admitted to the Obstetrics and Gynecology Service. Women aged 18 years and older who were able to speak Turkish, answer the study questions, had no diagnosed physical or mental illness, and voluntarily agreed to participate were included in the study. Multigravida women, those with communication difficulties, diagnosed physical or mental illnesses, those younger than 18 years of age, and women who did not volunteer to participate were excluded.

Instrumentation

In study Personal Information Form consisting of 22 questions covering women's socio-demographic (age, education, employment status, family type, income status) and obstetric characteristics (pregnancy history, whether they had problems during pregnancy, the reason for termination of pregnancy, time of termination of pregnancy, planned and desired pregnancy status, pregnancy follow-up status).¹²⁻¹⁴

The perinatal grief scale (short version) (PGS)

Perinatal Grief Scale (PGS) developed by Toedter et al. (1998)²⁴ was conducted by Köneş et al. (2017).²¹ The scale, which assesses the degree of grief experienced after perinatal loss, can be used 1-2 days after the loss or later in the post-loss period. The five-point Likert-type scale consists of 32 items. The scale consists of three sub-dimensions: active grief, difficulty in coping and hopelessness. A high score obtained from the sub-dimensions and the total score indicates that the level of grief experienced by the individual is high. The lowest score that can be obtained from the total score is 32 and the highest score is 160. In the validity and reliability study, Cronbach's alpha value was 0.96 for the total scale and 0.91-0.93 for the three sub-dimensions.²¹ In our study, it was 0.93 for the total scale and 0.76-0.89 for the three sub-dimensions at the first follow-up. These values indicate that the scale demonstrated a high level of reliability in our study sample as well. The scale was administered to women by researchers using a face-to-face interview method.

The trait anger and anger expression style scale (TAAESS)

The Trait Anger and anger Expression Scale (TAAESS) developed by Spielberger et al. (1983)²⁵ was adapted into Turkish by Özer (1994).²⁶ The scale has 34 items and a four-point Likert scale. It consists of two sub-dimensions: trait anger and anger style. Anger style is divided into three sub-dimensions: "anger in," "anger out" and "anger control." The lowest score that can be obtained from the trait anger sub-dimension is 10 and the highest is 40. The score that can be obtained from each anger style sub-dimension is between 8-32. High scores on the trait anger sub-dimension indicate that the level of anger is high; high scores on the anger inward sub-dimension indicate that anger is suppressed; high scores on the anger outward sub-dimension indicate that anger is easily expressed; high scores on the anger control sub-dimension indicate that anger can be controlled. In the validity and reliability study, the Cronbach's alpha value of the trait anger scale was between

0.67-0.92, the anger style sub-dimensions of anger internal anger 0.58-0.76, anger external anger 0.69-0.91 and anger control 0.80-0.90.²⁶ In our study, the scores were found to be 0.80 for the trait anger subscale, 0.70 for the inward anger subscale, 0.78 for the outward anger subscale, and 0.73 for the anger control subscale in the first follow-up. These values indicate that the scale demonstrated acceptable and good internal consistency in our sample and can be considered a reliable tool for evaluating trait anger and anger expression styles. The scale was administered to women by researchers using a face-to-face interview method.

The Turkish validity and reliability study of the coping strategies scale (CSS)

The Coping Strategies Scale (CSS) developed by Amirkhan (1990)²⁷ was conducted by Aysan (2003).²⁸ The scale has 33 items and a three-point Likert scale. The scale has three sub-dimensions problem solving, seeking social support and avoidance. The total scores of the subscales vary between 11-33. The higher the scores obtained from the scale, the higher the coping strategy is. Each sub-dimension is evaluated independently. In the validity and reliability study, Cronbach's alpha value was 0.92 for the sub-dimension of seeking social support, 0.89 for problem solving and 0.83 for avoidance.²⁸ In our study, it was found to be 0.83 for problem solving, 0.77 for seeking social support and 0.77 for avoidance at the first follow-up. These values indicate that the scale is acceptable in our study sample and demonstrates good internal consistency. The scale can be considered a reliable tool for assessing coping strategies in this study. The scale was administered to women by researchers using a face-to-face interview method.

Data collection

The purpose of the study was explained to the women who met the inclusion criteria and their written informed consent was obtained in this study. Women who experienced pregnancy loss were asked to fill in the Personal Information Form, the PGS, TAAESS and the CSS by the researcher within 24 hours after the loss by face-to-face interview method (first follow-up). This interview was conducted in the patient's room in a quiet, calm

and comfortable environment. The second follow-up was conducted to monitor the changes in the individuals one month later. For this follow-up, women were called by phone and invited to the Gynecology and Obstetrics Outpatient Clinic of the hospital. In the outpatient clinic, in a quiet, calm and private environment, the women were re-administered the PGS, TAAESS and the CSS, in the first month after pregnancy loss (second follow-up). It took 20-30 minutes to complete the forms.

Statistical analysis

The research data were evaluated using the SPSS 23.0 package program, and whether the data were normally distributed was determined by Kolmogorov-Smirnow and Shapiro-Wilk tests. Number and percentage distribution were used to evaluate socio-demographic characteristics, and mean and standard deviation were used to evaluate scale scores. Independent sample t-test was used to evaluate the scale scores between the follow-up visits of the women, and Pearson correlation analysis was used to determine the relationship between the scales. The results were evaluated at a 95% confidence interval and $p < 0.05$ significance level.

Ethical approval and consent to participate

Non-interventional Clinical Research Ethics Committee approval (decision no: 2020-11/25; date: 18-11-2020) and written permission from the institution where this research was conducted (number no: E-76728045-799-220767660) were obtained. The women were informed that participation in the study was voluntary, that they could withdraw from the study at any time, that their data would be used only for research purposes and that their names would be kept confidential, and written informed consent was obtained. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Results

Socio-demographic characteristics

Table 1 shows the socio-demographic characteristics of women who experienced

Table 1: Distribution of women with pregnancy loss according to some socio-demographic characteristics

Characteristics	n (%)	
Average age	26.81±5.23 (min: 18-max:42)	
Age group	18-25	120 (46.2)
	26-35	125 (48.1)
	36-42	15 (5.7)
Education status	Primary-Secondary school	41 (15.8)
	High school	147 (56.5)
	University and above	72 (27.7)
Employment status	Not working	182 (70.0)
	Working	78 (30.0)
Family type	Modern	233 (89.6)
	Traditional	27 (10.4)
Place of residence	Province	207 (79.6)
	District	53 (20.4)
Income and expenditure status	Income is less than expenses	75 (28.8)
	Income equals expenses	163 (62.7)
	Income exceeds expenses	22 (8.5)
Assessing your health	Good	118 (45.4)
	Middle	142 (54.6)
Presence of a support person in the family	Available	249 (95.8)
	No	11 (4.2)
Smoking status	Yes	45 (17.3)

pregnancy loss. ±The mean age of the women was 26.81 5.23 years (min: 18; max: 42) and 48.1% were between 26-35 years. It was determined that 56.5% of the women were high school graduates, 70% were not working, 89.6% had a nuclear family type and 79.6% lived in the city center. In this study, 62.7% of the participants stated that their income was equal to their expenses, 54.6% stated that their general health status was moderate, 95.8% stated that there was a support person in the family and 82.7% stated that they did not smoke (Table 1). Among women who experienced pregnancy loss, 83.8% rated themselves as "somewhat angry," 8.1% as "angry" and 8.1% as "not angry at all." While 79.6% of the women stated that they coped with stress and problems "somewhat positively," 11.5% stated that they coped positively, and 8.8% stated that they coped negatively.

Obstetric characteristics

Of women 71.5% experienced pregnancy loss in the first trimester and 39.2% in the last six to ten hours. 79.6% of women lost their pregnancies due to fetal causes, 78.1% did not experience any problems during pregnancy, and 11.5% of those who

experienced problems stated that they had an infection during pregnancy. It was determined that 76.9% of the women wanted their pregnancies, 69.2% had planned pregnancies, 84.2% had regular pregnancy follow-ups, and 84.2% had spontaneous pregnancies.

Research question 1

A statistically significant difference was found between the mean total scores of the PGS at the first and second follow-ups of women who experienced pregnancy loss ($p < 0.05$), while no statistically significant difference was found between the scores of active grief, difficulty in coping and hopelessness from the sub-dimensions of the PGS ($p > 0.05$). It was found that prenatal grief levels of women who experienced pregnancy loss decreased significantly at the second follow-up. However, although it was not significant, it was determined that there was a low-level increase in the sub-dimensions of active grief, difficulty in coping and hopelessness at the second follow-up (Table 2).

Research question 2

A statistically significant difference was found between the mean scores of trait anger, anger

Table 2: Comparison of the mean scores of the prenatal grief scale in the first and second follow-up of women with pregnancy loss

PGS	First follow-up		Second follow-up		Test (t / p)
	Min-max	X±SS	Min-max	X±SS	
Active grief	11-55	33.77±6.56	11-55	33.96±6.38	-1.572 / 0.117
Difficulty coping	10-50	27.53±7.06	10-49	27.60±6.97	-0.949 / 0.344
Despair	11-55	28.62±8.71	15-47	28.66±8.67	-1.00 / 0.318
Total PGS	32-160	91.04±20.42	32-159	90.19±19.63	3.772 / 0.001*

*p<0.05; PGS: Prenatal Grief Scale (Short Version); t: Dependent sample t test.

Table 3: Comparison of the mean scores of trait anger and anger expression style scale in the first and second follow-up of women with pregnancy loss

TAAESS	First follow-up		Second follow-up		Test (t/p)
	Min-max	X±SS	Min-max	X±SS	
Trait Anger	10-33	20.72±4.48	10-32	20.67±4.38	2.423 / 0.016*
Anger Style					
Anger inside	8-27	18.24±3.88	8-27	17.88±3.68	4.045 / 0.001*
Anger outward	9-27	17.21±4.40	8-28	16.96±4.32	3.456 / 0.001*
Anger management	13-31	21.21±4.14	8-31	20.81±4.23	4.746 / 0.001*

*p<0.05; TAAESS: Trait Anger and Anger Expression Style Scale; t: Dependent sample t test.

Table 4: Comparison of coping strategies scale mean scores of women with pregnancy loss at the first and second follow-up

CSS	First follow-up		Second follow-up		Test (t/p)
	Min-max	X±SS	Min-max	X±SS	
Problem solving	12-33	23.90±4.58	12-33	23.81±4.57	2.713 / 0.007*
Seeking social support	13-33	22.75±4.29	13-32	22.63±4.19	2.814 / 0.005*
Avoidance	12-33	22.47±4.24	12-32	22.31±4.23	2.781 / 0.006*

*p<0.05; CSS: Coping Strategies Scale; t: Dependent sample t test.

inward, anger outward and anger control scores of the subscales of the TAAESS ($p<0.05$). It was determined that anger and suppressed anger levels of women who experienced pregnancy loss decreased in the second follow-up; anger could not be expressed easily, and anger could not be controlled (Table 3).

Research question 3

A statistically significant difference was found between the mean scores of problem solving, seeking social support and avoidance, which are sub-dimensions of the CSS, at the first and second follow-up ($p<0.05$). It was found that women who experienced pregnancy loss had decreased levels of problem solving, seeking social support and avoidance at the second follow-up (Table 4).

Research question 4

In the first follow-up, a statistically weakly significant relationship was found between the total scores of the PGS and the mean scores of trait anger ($r=0.266$; $p=0.001$), anger in ($r=0.57$; $p=0.011$) and anger out ($r=0.128$; $p=0.040$), which were among the subscales of the TAAESS. In the second follow-up, a statistically weakly significant relationship was found between the total scores of the PGS and the mean scores of trait anger ($r=0.295$; $p=0.001$), anger in ($r=0.154$; $p=0.013$) and anger out ($r=0.137$; $p=0.028$), which are the sub-dimensions of the TAAESS. As the grief levels of women who experienced pregnancy loss increased both in the first and the second follow-up one month later, their levels of anger and anger suppression increased, and they could express anger more easily (Table 5).

Table 5: The relationship between the mean scores of the prenatal grief scale and the mean scores of trait anger and anger expression style scale and coping strategies scale in the first and second follow-up of women with pregnancy loss

TAAESS	PGS Total	
	First Follow-up	Second Follow-up
Trait Anger	$r=0.266^{**}$; $p=0.001$	$r=0.295^{**}$; $p=0.001$
Anger Style		
Anger inward	$r=0.157^{*}$; $p=0.011$	$r=0.154^{*}$; $p=0.013$
Anger outward	$r=0.128^{*}$; $p=0.040$	$r=0.137^{*}$; $p=0.028$
Anger management	$r=-0.108$; $p=0.082$	$r=-0.098$; $p=0.114$
CSS Subscales		
Problem solving	$r=0.006$; $p=0.924$	$r=0.030$; $p=0.632$
Seeking social support	$r=-0.050$; $p=0.418$	$r=-0.042$; $p=0.496$
Avoidance	$r=-0.027$; $p=0.066$	$r=0.024$; $p=0.705$

*Correlation is significant at 0.05 level; **Correlation is significant at 0.01 level

PGS: Prenatal Grief Scale (Short Version); TAAESS: Trait Anger and Anger Expression Style Scale; CSS: Coping Strategies Scale.

Discussion

Prenatal loss is considered one of the most distressing experiences for women, particularly for those experiencing their first pregnancy, as it may disrupt maternal expectations, emotional attachment, and the transition to motherhood. Consistent with previous studies, our findings demonstrated that prenatal grief levels were high immediately after pregnancy loss and gradually decreased over time.^{7,23} Although no significant changes were observed in active grief, difficulty coping, and hopelessness during the first month following the loss, overall prenatal grief scores significantly decreased at follow-up. This finding may suggest that women gradually begin to adapt to the reality of the loss during the early grieving process. However, the persistence of some grief-related symptoms indicates that emotional recovery after perinatal loss is not always linear and may vary among individuals. Similar longitudinal studies have reported that grief symptoms tend to decline within the first six months after pregnancy loss.^{12,31} Nevertheless, some women may continue to experience prolonged grief reactions during the first year after the loss.²⁹ These differences across studies may be related to variations in cultural characteristics, gestational age at loss, individual coping capacity, and available social support systems. Therefore, grief following perinatal loss should be considered a multidimensional and

individualized experience requiring continuous psychosocial evaluation.

Another important finding of the present study was the decrease in anger and suppressed anger levels one month after pregnancy loss. Women reported lower levels of anger and less suppression of anger compared to the immediate post-loss period. However, difficulties in expressing and controlling anger persisted during follow-up. Anger is considered a natural emotional response after pregnancy loss and may emerge as part of the grieving process, particularly during the initial period following the loss.¹⁵ Women may direct anger toward themselves, healthcare professionals, family members, or uncontrollable circumstances associated with the loss. Although a reduction in anger over time may indicate partial emotional adaptation, ongoing difficulties in anger expression and anger control may reflect unresolved emotional distress and inadequate psychosocial support. The literature emphasizes that the functionality of anger largely depends on an individual's ability to regulate emotional responses effectively.³³ Inadequate anger regulation may contribute to psychological distress, impaired interpersonal relationships, and reduced coping capacity.³⁴ One possible explanation for the persistence of anger-related difficulties in our study is that social support may gradually decrease after the acute phase of loss, leading women to feel misunderstood or emotionally unsupported by their

social environment. Supporting this interpretation, Navabinejad et al. emphasized the importance of individualized care and emotional support for women experiencing pregnancy loss.¹⁶ Therefore, emotional reactions such as anger should be evaluated not only as temporary responses to loss but also as indicators of ongoing psychosocial needs.

Our findings also demonstrated a decrease in problem-solving, seeking social support, and avoidance coping strategies one month after pregnancy loss. This reduction may indicate that women gradually confront the permanence and reality of the loss over time, resulting in changes in coping behaviors. While some coping mechanisms may initially help women manage emotional distress during the acute grief period, coping resources may weaken as emotional exhaustion and psychological vulnerability increase. Previous studies have similarly shown that women experiencing pregnancy loss commonly report intense sadness and emotional distress while relying heavily on social support from family and friends as an important coping resource.¹² In addition, intervention studies have demonstrated that women who received psychosocial support after pregnancy loss experienced lower levels of active grief, hopelessness, and coping difficulties compared with women who did not receive support.³⁵⁻³⁷ These findings support the importance of strengthening women's coping capacities through structured psychosocial interventions and supportive care services. Furthermore, factors such as spousal support, having other children, and satisfaction with healthcare services have been reported to positively influence women's emotional adjustment after loss.^{6,38} This highlights the critical role of healthcare professionals in providing compassionate care, effective communication, and continuous emotional support during the grieving process.

The present study also revealed a significant relationship between prenatal grief and anger responses. As women's grief levels increased both immediately after the loss and during the one-month follow-up period, anger and suppressed anger levels also increased. At the same time, women appeared to express their anger more easily as their grief intensified. This finding suggests that

anger may constitute an important emotional component of the grieving process after pregnancy loss. Since most women described themselves as partially angry during the first assessment conducted within 24 hours after the loss, the immediate emotional response to pregnancy loss may be strongly associated with acute grief reactions. Previous studies have similarly reported that women with advanced gestational losses experience more intense feelings of anger, sadness, and guilt.³¹ Over time, as grief levels decreased, women in our study may have become more capable of regulating and expressing anger in a healthier manner. This interaction between grief and anger highlights the complex emotional nature of perinatal loss and emphasizes the need for comprehensive psychological assessment during the postpartum period. Healthcare professionals, especially midwives, play a critical role in identifying women at risk for prolonged emotional distress and in providing appropriate counseling, emotional support, and referral services when necessary.

Strengths and limitations of the study

One of the strengths of this study is the use of valid and reliable measurement tools to evaluate grief, anger, and coping strategies in women experiencing perinatal loss. In addition, including only primigravida women enabled the collection of more homogeneous data.

This study has several limitations. First, the findings of this study were obtained only from women who applied to a hospital in the Central Anatolia Region of Türkiye and experienced pregnancy loss, and the results obtained cannot be generalized for all pregnant women. In addition, the fact that this study was descriptive, included only women, was and the follow-ups were conducted twice constitute other limitations.

Despite these limitations, the findings highlight the importance of early psychosocial assessment and supportive care for women experiencing perinatal loss. It is important for midwives and nurses professionals to evaluate women's emotional responses and coping processes and to provide appropriate counseling and support when necessary. In addition, it is recommended that

routine psychological support services for women after perinatal loss be incorporated into healthcare policies and clinical practices.

Conclusion

In the one-month follow-up of women who experienced pregnancy loss, it was determined that prenatal grief levels, anger and suppressed anger levels decreased significantly, anger could not be expressed easily, and anger could not be controlled. In addition, it was determined that women who experienced pregnancy loss had a decrease in coping strategies one month after the time they had just lost their babies. As the grief levels of women who experienced pregnancy loss increased both within 24 hours after the loss and one month later, their levels of anger and anger suppression increased and they could express anger more easily.

In line with these results, it is recommended that women should be given training and counseling about anger, anger expression styles and coping strategies starting from the period before conception, and women experiencing pregnancy loss should be given training and counseling about the grief process. It is also recommended that counseling services should be provided to the woman's husband, family and any individual who will support her, social support should be provided, and women should be followed up in the process after discharge from the hospital. The findings obtained from this study could be guiding in terms of the development of midwifery and nursing services aimed at protecting women's mental health.

Conflict of interests

No conflict of interest has been declared. The article was read and approved by all authors. The authors meet the authorship requirements and confirm that the article was worked honestly.

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Data availability

The data that support the findings of this study are available from the corresponding author, upon reasonable request.

Contribution of authors

ECC and SEP contributed to the conception of the study. ECC and SEP contributed to the design of the study. SEP took the lead in writing and organizing the manuscript. All authors read and approved the final manuscript.

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