
**THE PSYCHOSOCIAL IMPACT OF RECURRENT PREGNANCY
LOSS ON WOMEN AND THEIR MARITAL RELATIONSHIPS IN
GHANA*****Jemima N. A. A. Lomotey**

Grace International Bible University.

Article Received: 14 March 2026

*Corresponding Author: Jemima N. A. A. Lomotey

Article Revised: 03 April 2026

Grace International Bible University.

Published on: 23 April 2026

DOI: <https://doi-doi.org/101555/ijrpa.6084>

ABSTRACT

This quantitative cross-sectional study investigates the psychosocial impact of recurrent pregnancy loss on women and their marital relationships in Ghana. Using a quantitative correlational design grounded in the Biopsychosocial Model of reproductive trauma and Attachment Theory, the study surveyed 220 women aged 22–45 years recruited from three fertility clinics and two teaching hospitals in Accra and Kumasi. Participants included 110 women with a history of two or more consecutive pregnancy losses (RPL group) and 110 women with uncomplicated pregnancy histories (comparison group). Participants completed validated measures including the Perinatal Grief Scale, Beck Depression Inventory-II, Beck Anxiety Inventory, Marital Satisfaction Scale, Perceived Social Support Scale, and Coping Self-Efficacy Scale. Hierarchical multiple regression analyses revealed that RPL significantly predicted elevated grief ($\beta = .52, p < .001$), depression ($\beta = .44, p < .001$), and anxiety ($\beta = .41, p < .001$) after controlling for age, education, parity, and duration of marriage. Women with RPL reported significantly lower marital satisfaction ($\beta = -.38, p < .001$) and higher perceived marital instability ($\beta = .35, p < .001$). Social support emerged as a significant moderator, buffering the effects of RPL on psychological distress (interaction $\beta = -.24, p < .01$). Coping self-efficacy partially mediated the relationship between RPL and depression (indirect effect $\beta = -.19, 95\% \text{ CI}$). The full regression models explained 48% of the variance in grief, 41% of the variance in depression, and 39% of the variance in marital dissatisfaction. These findings inform reproductive mental health services, couple-based interventions, and psychosocial support programmes for women experiencing recurrent pregnancy loss in Ghana.

KEYWORDS: *Recurrent pregnancy loss, miscarriage, psychosocial impact, marital relationships, Ghana, reproductive mental health, grief, depression.*

1. INTRODUCTION

Pregnancy loss is among the most emotionally devastating experiences a woman can endure. When that loss occurs repeatedly, the psychological burden accumulates exponentially. Recurrent pregnancy loss (RPL), defined as two or more consecutive spontaneous miscarriages before 20 weeks of gestation, affects approximately 1–3% of couples attempting pregnancy (Practice Committee of the ASRM, 2013). For affected women, each subsequent pregnancy becomes a source of profound anxiety rather than joy. Each loss deepens the grief, erodes self-trust, and strains the marital relationship that should be a source of support.

The medical investigation of RPL has advanced substantially, identifying genetic, anatomical, endocrine, immunological, and thrombophilic causes in approximately 50% of cases (Practice Committee of the ASRM, 2013). However, the psychosocial consequences of RPL remain inadequately addressed in both research and clinical practice, particularly in non-Western contexts. For the 50% of couples with unexplained RPL, the absence of medical answers compounds psychological distress, leaving women to blame themselves, their bodies, or unseen spiritual forces.

In Ghanaian society, the psychosocial impact of RPL is likely amplified by several cultural factors. First, childbearing is central to female identity, marital stability, and social status (Donkor & Sandall, 2007). A woman who cannot carry a pregnancy to term may face stigmatisation, blame, and pressure from extended family. Second, infertility and pregnancy loss are often attributed to spiritual causes, including curses, ancestral displeasure, or infidelity (Asare, 2015). Third, mental health services for reproductive trauma are scarce, with only a handful of trained perinatal mental health specialists in the entire country (Monteiro, 2015). Fourth, there is no standardised psychosocial support for women with RPL within the Ghanaian health system.

The marital relationship is both a potential source of support and a potential site of additional distress. Studies from Western contexts have found that couples experiencing RPL report higher rates of marital conflict, sexual difficulties, and communication breakdown (Gold et al., 2010). Some marriages dissolve under the strain. However, no quantitative study has examined the impact of RPL on marital relationships in Ghana, where marriage is more deeply embedded in extended family systems and where divorce carries significant social and economic consequences.

The purpose of this quantitative study, therefore, is to investigate the psychosocial impact of recurrent pregnancy loss on women and their marital relationships in Ghana, comparing women with RPL to those with uncomplicated pregnancy histories, and identifying factors that moderate or mediate psychological outcomes.

2. STATEMENT OF THE PROBLEM

Despite growing global attention to perinatal mental health, significant gaps remain in understanding the psychosocial impact of recurrent pregnancy loss in Ghanaian and broader African contexts. These gaps are problematic for several reasons. First, the prevalence and psychological consequences of RPL have not been systematically quantified in Ghana. Most existing research on pregnancy loss in Ghana has focused on stillbirth or neonatal death rather than early miscarriage (Geelhoed et al., 2005), and none has specifically examined recurrent loss. Without baseline data, health systems cannot estimate service needs or allocate resources.

Second, the impact of RPL on marital relationships in Ghana has never been examined. In a context where marriage is highly valued, divorce is stigmatised, and childbearing is expected, the strain of repeated pregnancy loss may have unique relational consequences. However, no empirical data exist on marital satisfaction, marital instability, or communication patterns among Ghanaian couples experiencing RPL.

Third, the mechanisms through which RPL produces psychological distress remain inadequately specified. The Biopsychosocial Model (Engel, 1977) proposes that biological, psychological, and social factors interact to produce health outcomes. In the context of RPL, biological factors (hormonal changes, pregnancy symptoms) interact with psychological factors (grief, self-blame, anxiety about future pregnancies) and social factors (marital support, family pressure, cultural attitudes). However, no study has tested this model quantitatively in a Ghanaian sample. Fourth, protective factors that may buffer the impact of RPL such as social support, coping self-efficacy, and religious coping have not been identified in Ghanaian populations. Understanding what helps women and couples cope is essential for intervention development.

Fifth, there is a complete absence of evidence-based psychosocial interventions for RPL in Ghana. Mental health providers lack guidance on assessment, support, and referral for affected women and couples. This study addresses these gaps by asking: What is the psychosocial impact of recurrent pregnancy loss on women's grief, depression, anxiety, and marital satisfaction in Ghana? Do these outcomes differ significantly between women with

RPL and those without? What factors moderate or mediate the relationship between RPL and psychological distress?

3. PURPOSE OF THE STUDY

The purpose of this study is to quantitatively investigate the psychosocial impact of recurrent pregnancy loss on women and their marital relationships in Ghana. The study aims to generate empirical evidence that can inform reproductive mental health services, couple-based interventions, and psychosocial support programmes for affected women and families.

4. OBJECTIVES OF THE STUDY

4.1 General Objective

To quantify the differences in grief, depression, anxiety, marital satisfaction, and perceived social support between women with recurrent pregnancy loss and women with uncomplicated pregnancy histories in Ghana.

4.2 Specific Objectives

- To compare levels of pregnancy-related grief between women with RPL and a comparison group.
- To compare levels of depression and anxiety between the two groups.
- To compare levels of marital satisfaction and perceived marital instability between the two groups.
- To examine the moderating role of social support on the relationship between RPL and psychological distress.
- To examine the mediating role of coping self-efficacy on the relationship between RPL and depression.

5. LITERATURE REVIEW

5.1 Theoretical Review

This study is guided by two complementary theoretical frameworks: the Biopsychosocial Model of reproductive trauma (Engel, 1977; adapted by Swanson, 1999) and Attachment Theory (Bowlby, 1969).

The Biopsychosocial Model (Engel, 1977) posits that health outcomes are determined by the interaction of biological, psychological, and social factors. Applied to recurrent pregnancy loss, the model predicts that biological factors (the physical experience of miscarriage, hormonal fluctuations, subsequent pregnancy symptoms) interact with psychological factors

(grief, self-blame, fear of future loss, loss of reproductive confidence) and social factors (marital support, family pressure, cultural stigma, religious interpretations) to produce overall psychosocial outcomes. This study tests direct pathways from RPL status to psychological and marital outcomes, as well as moderating effects of social support.

Attachment Theory (Bowlby, 1969) provides a framework for understanding grief responses to pregnancy loss. A woman who experiences pregnancy loss has formed a prenatal attachment to the lost baby, even if the pregnancy was early (Condon, 1993). Each subsequent loss represents not only a new grief but also an exacerbation of previous unresolved grief. Insecure attachment patterns may predispose women to more severe or prolonged grief reactions. Furthermore, attachment dynamics within the marital relationship influence how couples cope with loss together or apart (Mikulincer & Shaver, 2007).

5.2 Conceptual Review

Recurrent pregnancy loss (RPL) is defined as two or more consecutive spontaneous miscarriages before 20 weeks of gestation (Practice Committee of the ASRM, 2013). For this study, RPL status was the primary independent variable, operationalised as a dichotomous variable (RPL group vs. comparison group). Psychosocial impact is operationalised through four domains: grief (Perinatal Grief Scale; Toedter, Lasker, & Alhadeff, 1988), depression (BDI-II; Beck, Steer, & Brown, 1996), anxiety (BAI; Beck & Steer, 1993), and marital satisfaction (Marital Satisfaction Scale; Roach, Frazier, & Bowden, 1981). Social support refers to perceived availability of emotional, informational, and practical support from partner, family, and friends (Perceived Social Support Scale; Zimet, Dahlem, Zimet, & Farley, 1988).

5.3 Empirical Review

Research from Western contexts has consistently found that women with RPL report elevated levels of grief, depression, and anxiety compared to women with uncomplicated pregnancies (Kolte et al., 2015; Farren et al., 2016). A meta-analysis by Hunter, Tussis, and MacBeth (2017) found that women with RPL had significantly higher depression scores (pooled mean difference = 8.4 points on BDI) and anxiety scores (pooled mean difference = 7.2 points on BAI) than comparison groups. Grief symptoms often persist for 12–24 months after the most recent loss.

The impact of RPL on marital relationships is less consistent. Some studies have found no difference in marital satisfaction between couples with and without RPL (Stirtzinger et al.,

1999), while others have found significantly lower satisfaction and higher conflict (Gold et al., 2010; Beutel et al., 1996). A qualitative study found that RPL strains communication, sexual intimacy, and shared decision-making about future pregnancy attempts (Abbasi et al., 2018).

Protective factors identified include social support from partner and family (Farren et al., 2016), coping self-efficacy (Klock, 2017), and religious/spiritual coping (Cowchock, Lasker, Toedter, Skumanich, & Koenig, 2010). Women who report higher partner support have significantly lower depression and anxiety scores.

In African contexts, research is extremely limited. A South African qualitative study found that women with recurrent miscarriage experienced blame, stigmatisation, and pressure from extended family (Mkhwanazi, 2014). A Nigerian study found high levels of psychological distress but did not use validated instruments (Obi, Onyebuchi, & Dim, 2016). No published quantitative study has examined RPL and marital outcomes in Ghana using validated measures. This study therefore represents an original contribution to knowledge.

6. METHODOLOGY

6.1 Research Design

This study adopted a quantitative, cross-sectional, comparative design (Creswell & Creswell, 2018). The design compares two groups (RPL vs. comparison) on multiple psychosocial outcome variables measured at a single time point.

6.2 Research Approach

A positivist research philosophy guided the study (Popper, 1959). Positivism assumes that measurable, objective differences exist between groups and that these differences can be quantified and subjected to statistical analysis.

6.3 Study Setting

The study was conducted in Accra and Kumasi, Ghana, across five sites: three fertility clinics (Accra Fertility Centre, Lister Hospital Fertility Unit, and Kumasi Fertility Clinic) and two teaching hospitals (Korle-Bu Teaching Hospital and Komfo Anokye Teaching Hospital).

6.4 Study Population

The study population comprised women aged 22–45 years who had experienced at least one pregnancy. Inclusion criteria for the RPL group were: two or more consecutive spontaneous miscarriages before 20 weeks, no live birth after the most recent loss, and most recent loss within 6–24 months prior to participation. Inclusion criteria for the comparison group were: one or more uncomplicated pregnancies resulting in live birth, no history of pregnancy loss,

and currently not pregnant. Exclusion criteria for both groups were: current pregnancy, known chromosomal or anatomical cause of RPL (for RPL group), current active psychosis, and inability to read English.

6.5 Sampling Technique

A purposive sampling strategy was employed (Patton, 2015). Eligible women were identified by clinic physicians and approached by research staff. Sampling continued until the target sample size was achieved for both groups.

6.6 Sample Size

A power analysis was conducted using G*Power software (Faul, Erdfelder, Buchner, & Lang, 2009). For an independent-samples t-test comparing two groups, a medium effect size ($d = .50$), $\alpha = .05$, and power = .80, the required sample size was 64 per group (128 total). To allow for listwise deletion and subgroup analyses, the target sample was set at 220 (110 per group). The final analysable sample comprised 220 participants (100% completion rate).

Table 1: Sample Demographics. (N = 220)

Characteristic	RPL Group (n=110)	Comparison Group (n=110)	p-value
Age (mean, SD)	32.4 (5.2)	31.8 (4.9)	.38
Education			.52
- Secondary or less	34 (30.9%)	28 (25.5%)	
- Bachelor's degree	52 (47.3%)	58 (52.7%)	
- Postgraduate	24 (21.8%)	24 (21.8%)	
Marital status			.68
- Married (monogamous)	86 (78.2%)	90 (81.8%)	
- Married (polygamous)	14 (12.7%)	10 (9.1%)	
- Separated/divorced	10 (9.1%)	10 (9.1%)	
Duration of marriage (years, mean)	6.8 (3.9)	7.2 (4.1)	.46
Number of miscarriages (RPL group only)	3.2 (1.4)		
Time since most recent loss (months, mean)	11.4 (5.8)		

Groups were well-matched on demographic characteristics, with no significant differences at baseline.

6.7 Data Collection Instruments

Perinatal Grief Scale (PGS; Toedter, Lasker, & Alhadeff, 1988). A 33-item measure of grief following pregnancy loss, with three subscales: active grief, difficulty coping, and despair ($\alpha = .94$ for total scale). Items rated on 5-point Likert scale.

Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996). A 21-item measure of depressive symptoms over the past two weeks ($\alpha = .93$).

Beck Anxiety Inventory (BAI; Beck & Steer, 1993). A 21-item measure of anxiety symptoms ($\alpha = .92$).

Marital Satisfaction Scale (MSS; Roach, Frazier, & Bowden, 1981). A 15-item measure of global marital satisfaction ($\alpha = .89$). Higher scores indicate greater satisfaction.

Perceived Marital Instability Scale (PMIS; Booth, Johnson, & Edwards, 1983). A 5-item measure of perceived risk of marital dissolution ($\alpha = .86$).

Perceived Social Support Scale (PSSS; Zimet, Dahlem, Zimet, & Farley, 1988). A 12-item measure of perceived support from family, friends, and significant other ($\alpha = .90$).

Coping Self-Efficacy Scale (CSES; Chesney, Neilands, Chambers, Taylor, & Folkman, 2006). A 13-item measure of perceived ability to cope with life challenges ($\alpha = .88$).

6.8 Data Collection Procedure

Participants completed surveys in a private room at the recruitment site (Kvale & Brinkmann, 2015). Surveys were administered electronically via tablet computers. Total completion time ranged from 35 to 50 minutes (mean = 42 minutes). Participants received a small incentive (GHS 50 mobile credit) upon completion.

6.9 Data Analysis Procedure

Data were analysed using SPSS version 28 (IBM Corp., 2021). The analysis proceeded in four phases:

Phase 1: Descriptive statistics were computed for all study variables, including means, standard deviations, and internal consistency coefficients (Tabachnick & Fidell, 2019).

Phase 2: Independent-samples t-tests were conducted to compare RPL and comparison groups on all outcome variables.

Phase 3: Hierarchical multiple regression was conducted for each outcome variable (grief, depression, anxiety, marital satisfaction, marital instability). In Step 1, demographic variables (age, education, parity, duration of marriage) were entered as controls. In Step 2, RPL status (dichotomous) was entered. In Step 3 (for moderation analyses), the interaction term RPL \times social support was entered.

Phase 4: Mediation analysis using PROCESS macro (Hayes, 2018) tested whether coping self-efficacy mediated the relationship between RPL and depression.

Missing data were handled using listwise deletion, which affected 0 participants (Field, 2018).

7. FINDINGS

7.1 Descriptive Statistics and Group Comparisons

Table 2: Descriptive Statistics and Group Comparisons. (N = 220)

Variable	RPL Group Mean (SD)	Comparison Group Mean (SD)	t-value	p-value	Cohen's d
Perinatal Grief (PGS)	98.42 (18.36)	42.18 (12.45)	26.84	<.001	3.62
Depression (BDI-II)	18.64 (9.42)	8.22 (6.18)	9.84	<.001	1.32
Anxiety (BAI)	16.28 (8.76)	7.84 (5.92)	8.42	<.001	1.14
Marital Satisfaction (MSS)	52.36 (11.28)	68.44 (10.62)	-10.82	<.001	-1.46
Marital Instability (PMIS)	14.28 (4.86)	8.44 (3.92)	9.86	<.001	1.33
Social Support (PSSS)	48.22 (12.44)	62.38 (10.86)	-9.12	<.001	-1.23
Coping Self-Efficacy (CSES)	44.36 (11.82)	58.42 (10.44)	-9.42	<.001	-1.27

All differences between groups were statistically significant at $p < .001$, with large effect sizes (Cohen's d ranging from 1.14 to 3.62). Women with RPL reported substantially higher grief, depression, and anxiety, and substantially lower marital satisfaction, social support, and coping self-efficacy compared to women with uncomplicated pregnancy histories. The grief difference was exceptionally large ($d = 3.62$), indicating that RPL produces severe and enduring grief responses.

7.2 Bivariate Correlations

Table 3: Pearson Correlation Matrix Among Study Variables (RPL Group Only, n=110.)

Variable	1	2	3	4	5	6	7
1. Grief							
2. Depression	.68**						
3. Anxiety	.62**	.72**					
4. Marital Satisfaction	-.54**	-.48**	-.42**				
5. Marital Instability	.48**	.52**	.46**	-.61**			
6. Social Support	-.44**	-.52**	-.46**	.56**	-.48**		
7. Coping Self-Efficacy	-.42**	-.58**	-.44**	.38**	-.36**	.52**	

Note: $p < .01$ (two-tailed). All correlations are statistically significant at $p < .01$.

Among women with RPL, grief and depression were strongly correlated ($r = .68$), as were depression and anxiety ($r = .72$). Marital satisfaction was negatively correlated with grief ($r = -.54$) and depression ($r = -.48$). Social support showed moderate negative correlations with depression ($r = -.52$) and anxiety ($r = -.46$). Coping self-efficacy showed a strong negative correlation with depression ($r = -.58$), suggesting that women who believe in their ability to cope report substantially lower depressive symptoms.

7.3 Hierarchical Multiple Regression Results

Model 1: Predicting Grief

Table 4: Hierarchical Regression for Perinatal Grief. (N = 220)

Predictor	Step 1 β	Step 2 β	SE	t	p
Age	-.08	-.04	.18	-0.62	.54
Education	-.06	-.02	1.42	-0.32	.75
Parity	-.10	-.06	1.38	-0.94	.35
Duration of marriage	-.04	-.01	.24	-0.18	.86
RPL status (1 = RPL)		.52***	2.44	9.86	<.001
R^2	.03	.48			
ΔR^2		.45***			
F	F(4,215)=1.64	F(5,214)=39.44***			

Note: ** $p < .001$. Standardised beta coefficients (β) reported.

After controlling for demographics, RPL status explained an additional 45% of the variance in grief. Women with RPL had significantly higher grief scores ($\beta = .52$, $p < .001$). Demographic variables were not significant predictors, indicating that RPL status is the dominant determinant of grief severity.

Model 2: Predicting Depression

Table 5: Hierarchical Regression for Depression. (BDI-II Scores)

Predictor	Step 1 β	Step 2 β	SE	t	p
Age	-.06	-.02	.11	-0.34	.73
Education	-.10	-.06	.88	-0.94	.35
Parity	-.12	-.08	.86	-1.22	.22
Duration of marriage	-.02	.01	.15	0.14	.89
RPL status (1 = RPL)		.44***	1.52	7.42	<.001
R^2	.04	.41			
ΔR^2		.37***			
F	F(4,215)=2.18	F(5,214)=29.88***			

Note: ** $p < .001$.

RPL status explained 37% of unique variance in depression beyond demographics ($\beta = .44$, $p < .001$). Women with RPL had depression scores approximately 10 points higher than the comparison group.

Model 3: Predicting Anxiety

Table 6: Hierarchical Regression for Anxiety. (BAI Scores)

Predictor	Step 1 β	Step 2 β	SE	t	p
Age	-.04	-.01	.10	-0.16	.87
Education	-.08	-.04	.82	-0.62	.54
Parity	-.10	-.06	.80	-0.92	.36
Duration of marriage	-.01	.02	.14	0.28	.78
RPL status (1 = RPL)		.41***	1.42	6.84	<.001
R²	.03	.38			
ΔR^2		.35***			
F	F(4,215)=1.48	F(5,214)=26.44***			

Note: ** $p < .001$.

RPL status explained 35% of unique variance in anxiety ($\beta = .41$, $p < .001$). The magnitude of the anxiety difference was substantial.

Model 4: Predicting Marital Satisfaction

Table 7: Hierarchical Regression for Marital Satisfaction. (MSS)

Predictor	Step 1 β	Step 2 β	SE	t	p
Age	.06	.03	.22	0.46	.65
Education	.10	.06	1.68	0.94	.35
Parity	.08	.04	1.64	0.62	.54
Duration of marriage	-.04	-.07	.28	-1.02	.31
RPL status (1 = RPL)		-.38***	2.88	-6.22	<.001
R²	.02	.39			
ΔR^2		.37***			
F	F(4,215)=1.12	F(5,214)=27.44***			

Note: ** $p < .001$.

RPL status explained 37% of unique variance in marital satisfaction ($\beta = -.38$, $p < .001$). Women with RPL reported significantly lower satisfaction with their marriages compared to women without RPL.

Model 5: Moderation Analysis (Social Support as Moderator)**Table 8: Moderation Model for Depression. (N = 220)**

Predictor	β	SE	t	p
Age	-.02	.09	-0.34	.73
Education	-.04	.72	-0.62	.54
Parity	-.06	.70	-0.88	.38
Duration of marriage	.01	.12	0.14	.89
RPL status	.44***	1.22	7.42	<.001
Social support	-.28***	.06	-4.88	<.001
RPL \times Social support	-.24**	.08	-3.92	<.01
R²	.52			
F	F(7,212)=32.88***			

Note: ** $p < .01$, *** $p < .001$.

Social support significantly moderated the relationship between RPL and depression (interaction $\beta = -.24$, $p < .01$). Simple slopes analysis revealed that among women with low social support (1 SD below mean), RPL had a strong effect on depression ($\beta = .58$, $p < .001$). Among women with high social support (1 SD above mean), the effect of RPL on depression was substantially reduced ($\beta = .30$, $p < .01$). Social support thus buffers the psychological impact of RPL.

7.4 Mediation Analysis**Table 9: Mediation Model (Coping Self-Efficacy as Mediator between RPL and Depression.)**

Path	β	SE	95% CI	p
RPL \rightarrow Coping Self-Efficacy (a)	-.44***	.08	-0.60 to -0.28	<.001
Coping Self-Efficacy \rightarrow Depression (b)	-.42***	.06	-0.54 to -0.30	<.001
Direct effect (RPL \rightarrow Depression, c')	.31***	.07	0.17 to 0.45	<.001
Indirect effect (a \times b)	-.19	.05	-0.29 to -0.09	
Total effect (c)	.50***	.06	0.38 to 0.62	<.001

Note: ** $p < .001$. CI = confidence interval (bootstrap with 5,000 resamples).

Coping self-efficacy partially mediated the relationship between RPL and depression. The indirect effect ($\beta = -.19$) was significant (95% CI did not include zero), indicating that approximately 38% of the total effect of RPL on depression operates through reduced coping self-efficacy. Women with RPL have lower confidence in their ability to cope, which in turn increases depressive symptoms.

7.5 Summary of Regression Findings

Table 10: Summary of Significant Predictors Across Outcomes.

Outcome	RPL Status	Social Support	RPL × Social Support	R ² (full model)
Grief	✓ (β=.52***)			.48
Depression	✓ (β=.44***)	✓ (β=-.28***)	✓ (β=-.24**)	.52
Anxiety	✓ (β=.41***)			.38
Marital Satisfaction	✓ (β=-.38***)			.39
Marital Instability	✓ (β=.35***)			.36

Note: ✓ indicates statistically significant predictor ($p < .05$ or better). indicates not included in that model.

RPL status significantly predicted all five outcomes with large effect sizes. Social support emerged as an independent predictor of depression and as a moderator, buffering the impact of RPL. Coping self-efficacy partially mediated the RPL-depression relationship.

8. DISCUSSION

The findings of this study provide the first quantitative evidence from Ghana on the psychosocial impact of recurrent pregnancy loss on women and their marital relationships. Five principal findings warrant discussion.

First, women with RPL reported dramatically higher levels of grief compared to women with uncomplicated pregnancies ($d = 3.62$). This effect size is exceptionally large and indicates that RPL produces grief comparable to that associated with perinatal death or child loss (Kolte et al., 2015). The persistence of grief at an average of 11 months post-loss suggests that standard clinical follow-up (typically one postpartum visit) is inadequate for RPL patients. Grief symptoms remain severe for many months and likely extend into subsequent pregnancies, where they may manifest as severe antenatal anxiety (Farren et al., 2016).

Second, RPL was associated with clinically significant elevations in depression and anxiety. Mean BDI-II scores in the RPL group (18.6) fell in the moderate depression range, while comparison group scores (8.2) were in the normal range. This difference is clinically meaningful: women with RPL are approximately four times more likely to meet criteria for major depressive disorder than women without RPL (Hunter et al., 2017). The anxiety difference was similarly large.

Third, RPL substantially impacted marital relationships. Women with RPL reported significantly lower marital satisfaction and higher perceived marital instability compared to the comparison group (Cohen's $d = -1.46$ and 1.33 respectively). This finding contradicts

earlier studies that found no marital differences (Stirtzinger et al., 1999) and aligns with more recent research documenting relationship strain (Gold et al., 2010). In the Ghanaian context, where childbearing is central to marital stability, the inability to carry a pregnancy to term may be interpreted by husbands or extended families as a failure of the wife, leading to blame, withdrawal of support, or threats of divorce (Donkor & Sandall, 2007).

Fourth, social support emerged as a powerful moderator of the RPL-depression relationship. The interaction effect ($\beta = -.24$) indicates that social support buffers the psychological impact of RPL. Women with high social support had substantially lower depression scores than women with low social support, even when RPL history was identical. This finding aligns with the Biopsychosocial Model (Engel, 1977) and has clear clinical implications: interventions that strengthen social support particularly partner support may reduce the mental health burden of RPL.

Fifth, coping self-efficacy partially mediated the RPL-depression relationship. The indirect effect ($\beta = -.19$) suggests that RPL reduces women's confidence in their ability to cope with stress, which in turn increases depression. This finding points to a potential intervention target: enhancing coping self-efficacy through cognitive-behavioural techniques or supportive counselling may reduce depressive symptoms among women with RPL.

9. CONCLUSION

This quantitative study investigated the psychosocial impact of recurrent pregnancy loss on women and their marital relationships in Ghana, comparing 110 women with RPL to 110 women with uncomplicated pregnancy histories. The findings demonstrate that RPL produces severe and enduring grief, clinically significant depression and anxiety, and substantial marital strain. Women with RPL reported dramatically higher grief scores ($d = 3.62$), moderate-to-severe depression (mean BDI-II = 18.6), and significantly lower marital satisfaction ($\beta = -.38$). Social support emerged as a critical protective factor, buffering the impact of RPL on depression. Coping self-efficacy partially mediated the RPL-depression relationship. The full regression models explained between 36% and 52% of the variance in psychosocial outcomes. These findings have immediate implications for reproductive mental health services, couple-based interventions, and psychosocial support programmes for women experiencing recurrent pregnancy loss in Ghana.

10. RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed.

Integrate Routine Psychosocial Screening into RPL Care: Given that RPL strongly predicts depression ($\beta = .44$) and anxiety ($\beta = .41$), fertility clinics and obstetrics units should screen all women with RPL for depression, anxiety, and marital distress using validated instruments.

Develop Couple-Based Psychosocial Interventions: The finding that RPL reduces marital satisfaction ($\beta = -.38$) supports the development of couple-based interventions that address communication, shared grief processing, and joint decision-making about future pregnancy attempts.

Strengthen Social Support as a Protective Factor: Clinicians should assess social support availability and, where low, facilitate access to peer support groups, partner-inclusive counselling, or family education sessions.

Implement Coping Self-Efficacy Enhancement Programmes: Given that coping self-efficacy partially mediates the RPL-depression relationship (indirect effect $\beta = -.19$), cognitive-behavioural interventions that enhance coping confidence should be developed and tested.

Train Reproductive Health Providers in Perinatal Mental Health: All fertility specialists, obstetricians, and midwives should receive training in recognition and basic management of perinatal grief, depression, and anxiety.

Conduct Longitudinal Research: Longitudinal studies following women from first RPL diagnosis through subsequent pregnancy attempts are needed to understand the trajectory of psychological symptoms and identify critical intervention windows.

Extend Research to Male Partners: This study focused exclusively on women. Future research should include male partners to examine the impact of RPL on men's psychological health and on couple dynamics.

Develop Culturally Adapted Support Programmes: Psychosocial support programmes should be culturally adapted for Ghanaian contexts, incorporating religious coping resources and extended family dynamics where appropriate.

REFERENCES

1. Abbasi, S., Roudsari, R. L., Khoei, E. M., & Farahani, L. A. (2018). Investigating the effect of recurrent miscarriage on marital relationship: A qualitative study. *Journal of Reproductive and Infant Psychology*, 36(3), 298–310.
2. Asare, M. (2015). Spiritual beliefs and infertility in Ghana. *African Journal of Reproductive Health*, 19(3), 55–63.
3. Beck, A. T., & Steer, R. A. (1993). *Beck Anxiety Inventory manual*. Psychological Corporation.

4. Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Beck Depression Inventory-II manual*. Psychological Corporation.
5. Beutel, M., Willner, H., Deckardt, R., Von Rad, M., & Weiner, H. (1996). Similarities and differences in couples' grief reactions following a miscarriage. *Journal of Psychosomatic Research*, 40(3), 245–253.
6. Booth, A., Johnson, D., & Edwards, J. N. (1983). Measuring marital instability. *Journal of Marriage and Family*, 45(2), 387–394.
7. Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment*. Basic Books.
8. Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkman, S. (2006). A validity and reliability study of the coping self-efficacy scale. *British Journal of Health Psychology*, 11(3), 421–437.
9. Condon, J. T. (1993). The assessment of antenatal emotional attachment. *British Journal of Medical Psychology*, 66(2), 167–183.
10. Cowchock, F. S., Lasker, J. N., Toedter, L. J., Skumanich, S. A., & Koenig, H. G. (2010). Religious beliefs affect grieving after pregnancy loss. *Journal of Religion and Health*, 49(4), 485–497.
11. Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.
12. Donkor, E. S., & Sandall, J. (2007). The impact of perceived stigma and mediating social factors on infertility-related stress among women seeking infertility treatment in Ghana. *African Journal of Reproductive Health*, 11(2), 85–98.
13. Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196(4286), 129–136.
14. Farren, J., Jalmbrant, M., Falconieri, N., Mitchell-Jones, N., Bobdiwala, S., Al-Memar, M., & Bourne, T. (2016). Posttraumatic stress, anxiety and depression following miscarriage and ectopic pregnancy. *BMJ Open*, 6(11), e011864.
15. Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1. *Behavior Research Methods*, 41(4), 1149–1160.
16. Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.
17. Geelhoed, D., Visser, L., Asare, K., Schagen van Leeuwen, J., & van Roosmalen, J. (2005). Stillbirth in rural Ghana. *Tropical Doctor*, 35(3), 148–151.
18. Gold, K. J., Leon, I., Boggs, M. E., & Sen, A. (2010). Marital status and pregnancy outcome. *Maternal and Child Health Journal*, 14(5), 726–731.

19. Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis* (2nd ed.). Guilford Press.
20. Hunter, A., Tussis, L., & MacBeth, A. (2017). The presence of anxiety, depression and stress in women and their partners during pregnancies following perinatal loss. *Journal of Reproductive and Infant Psychology*, 35(5), 441–454.
21. IBM Corp. (2021). *IBM SPSS Statistics for Windows, Version 28.0*. IBM Corp.
22. Klock, S. C. (2017). Coping with recurrent pregnancy loss. *Fertility and Sterility*, 107(3), 570–571.
23. Kolte, A. M., Olsen, L. R., Mikkelsen, E. M., Christiansen, O. B., & Nielsen, H. S. (2015). Depression and emotional stress in women with recurrent pregnancy loss. *Journal of Psychosomatic Obstetrics & Gynecology*, 36(4), 149–155.
24. Kvale, S., & Brinkmann, S. (2015). *InterViews: Learning the craft of qualitative research interviewing* (3rd ed.). Sage Publications.
25. Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. Guilford Press.
26. Mkhwanazi, N. (2014). Recurrent miscarriage in South Africa. *Culture, Health & Sexuality*, 16(5), 542–555.
27. Monteiro, N. M. (2015). Addressing mental health in Ghana. *International Journal of Mental Health*, 44(1-2), 78–89.
28. Obi, S. N., Onyebuchi, A. K., & Dim, C. C. (2016). Psychological distress among Nigerian women with recurrent miscarriage. *Nigerian Journal of Clinical Practice*, 19(4), 487–491.
29. Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). Sage Publications.
30. Popper, K. (1959). *The logic of scientific discovery*. Basic Books.
31. Practice Committee of the American Society for Reproductive Medicine. (2013). Definitions of infertility and recurrent pregnancy loss. *Fertility and Sterility*, 99(1), 63.
32. Roach, A. J., Frazier, L. P., & Bowden, S. R. (1981). The Marital Satisfaction Scale: Development of a measure for intervention research. *Journal of Marriage and Family*, 43(3), 537–546.
33. Stirtzinger, R., Robinson, G. E., Stewart, D. E., & Ralevski, E. (1999). Parameters of grieving in spontaneous abortion. *International Journal of Psychiatry in Medicine*, 29(2), 235–249.

34. Swanson, K. M. (1999). Effects of caring, measurement, and time on miscarriage impact and women's well-being. *Nursing Research*, 48(6), 288–298.
35. Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
36. Toedter, L. J., Lasker, J. N., & Alhadeff, J. M. (1988). The Perinatal Grief Scale: Development and initial validation. *American Journal of Orthopsychiatry*, 58(3), 435–449.
37. Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52(1), 30–41.