Shaping Resilience in a Racially Diverse Sample: The Role of Discrimination, Childhood Adversity, and Support Systems in Maternal Mental Health

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Introduction

Childhood adversity experiences (ACEs) can significantly affect mental health. This study expands our understanding of this relationship by focusing on mothers from a racially diverse sample, using a multisystem approach to resilience. Specifically, the study aims to:

(a) examine how ACEs relate to maternal anxiety and depression during the early motherhood period, a time of heightened vulnerability for mothers;

(b) explore the role of risks and resilience that meaningfully represent one's social experience, at individual (self-efficacy, loneliness, parenting stress) and contextual levels (partner support, discrimination, family strength, neighborhood safety).

Methods

- **Participants**:

N = 334 racially diverse mothers (Table 1)

- **Measures**:

Predictors

- ACEs: Adverse Childhood Experiences Questionnaire (Felitti et al., 1998)
- Maternal Self-Efficacy: Self-Efficacy for Parenting Tasks Index-Toddler Scale (SEPTI-TS; Coleman et al., 2003)
- Loneliness: UCLA Loneliness Scale Short Form (Hughes et al., 2024)
- Parenting Stress: Parenting Stress Index (PSI; Abidin, 1995)
- Partner support question: "In general, how often do you feel your partner has been supportive since the birth of your child?"
- Discrimination question: "During the past 12 months, how often did you experience discrimination or harassment or were made to feel inferior because of your race, ethnicity, or culture?"
- Family Strength: Family Resilience Scale (Zhang et al., 2021)
- Neighborhood Safety: Neighborhood Questionnaire (Crouch et al., 2023)

Outcomes

- Depression: Center for Epidemiological Studies – Depression scale (CES-D; Radloff, 1977)
- Anxiety: Generalized Anxiety Disorder Scale (GAD-7; Spitzer et al., 2006)

Covariates

- Sociodemographics (maternal age, education, income, and child sex)
- COVID-19-related resource worries questionnaire (Jiang et al., 2024).

- **Analytical Strategy**:

Hierarchical regressions were performed using SPSS 24

Results

Preliminary Analysis

Table 1. *Participants' Sociodemographics (N = 334)*

	Mean (SD) or %
Maternal age (years)	31.60 (5.84)
Maternal race	
Black or African	23 %
Hispanic or Latino	18 %
Asian and Pacific Islanders	24 %
Multiracial/Other	35 %
Maternal Education	
Less than college	53.6 %
College	23.2 %
Masters	7.8 %
Doctorate	1.1 %
Family Income	
<$74,999	62.6%
$75,000-149,999	29.9 %
$150,000-224,999	5.1 %
>$225,000	2.4 %
Infant sex (female)	47 %
Infant age (months)	32.48 (4.92)

Table 2. *Descriptive statistics and correlations between key variables of the study (N = 334)*

Variables	1	2	3	4	5	6	7	8	9	10
1. ACEs	–									
2. Self-efficacy	-0.061	–								
3. Loneliness	**0.270****	-0.103	–							
4. Parenting Stress	**-0.151****	-0.084	**0.217****	–						
5. Partner Support	**-0.289****	0.012	**-0.465****	**-0.234****	–					
6. Discrimination	**0.328****	-0.083	**0.237****	**0.292****	**-0.122***	–				
7. Family Strength	**-0.206****	-0.075	**-0.497****	**-0.282****	**0.475****	**-0.148***	–			
8. Neighborhood Safety	**-0.124****	-0.064	**-0.330****	-0.104	**0.308****	**-0.155****	**-0.420****	–		
9. Depression	**0.414****	-0.068	**0.660****	**0.262****	**-0.429****	**0.360****	**-0.476****	**-0.278****	–	
10. Anxiety	**0.442****	-0.055	**0.594****	**0.199****	**-0.380****	**0.367****	**-0.405****	**-0.201****	**0.808****	–
Mean	2.98	31.73	5.40	5.27	5.03	2.18	12.06	11.75	40.49	14.59
Median	2	32	5	4	6	2	12	12	39	14
SD	2.71	5.67	1.96	2.79	1.77	1.06	3.13	2.91	13.66	5.73
Minimum	0	3	3	2	1	1	4	4	20	6
Maximum	10	52	9	15	7	5	16	16	78	28

Note: $^{*}p < .05$, $^{**}p < .001$.

Main Analysis

Main Associations

- ACEs, discrimination, and loneliness are associated with an increased risk of maternal depression (b = 1.00, *raw-p* = .000, *adj-p*= .000; b = 1.91, *raw-p* = .000, *adj-p*= .022; b = 3.00, *raw-p* = .000, *adj-p*= .000) and anxiety (b = .50, *raw-p* = .000, *adj-p*= .000; b = .86, *raw-p* = .000, *adj-p*= .020; b = 1.27, *raw-p* = .000, *adj-p*= .000) after controlling for other variables.
- Partner support and family strength are associated with a decreased risk of maternal depression (b = -.838, *raw-p* = .021, *adj-p*= .041; b = -.509, *raw-p* = .016, *adj-p*= .036) but not anxiety (b = -.20, *raw-p* = .212, *adj-p*= .340; b = -.17, *raw-p* = .071, *adj-p*= .161).
- Self-efficacy, parenting stress, and neighborhood safety were not significantly associated with depression (b = .07, *raw-p* = .435, *adj-p* = .593; b = .06, *raw-p* = .733, *adj-p* = .942; b = -.07, *raw-p* = .716, *adj-p* = .947, respectively) nor anxiety (b = .05, *raw-p* = .227, *adj-p*= .330; b = -.05, *raw-p* = .534, *adj-p*= .586; b = .08, *raw-p* = .324, *adj-p*= .405).

Moderating Effects

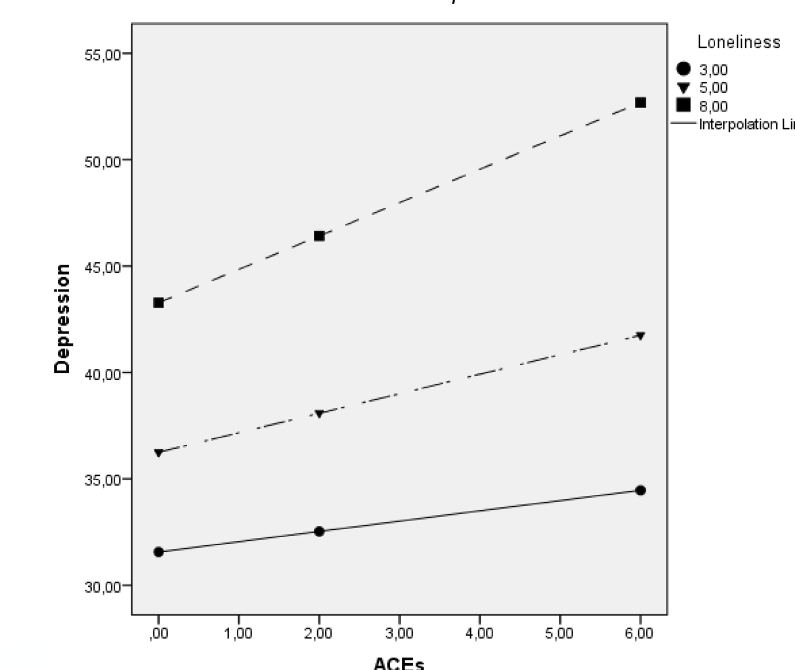
- There was a marginally significant moderating effect of ACEs with loneliness on depression (b = .217, *raw-p* =.029, *adj-p* = .050; Table 3): moderate and high levels (b = .917, *raw-p* = .000 and b = 1.568, *raw-p* = .000, respectively; Figure 1) of loneliness are more strongly associated with depression with a prior history of higher ACES.
- There was no evidence of moderating effects of ACEs with loneliness on anxiety (Table 4) nor of ACEs with discrimination, partner support, and family strength on both depression and anxiety.

Table 3 *Hierarchical multiple regression predicting depression based on individual and contextual factors, ACEs, and significant moderator (ACEsxLoneliness).*

Predictor		*b (SE)*	*t*	*p (adj-p)*	R^2	ΔR^2
Block 1					.42	.42
	Self-efficacy	.07(.09)	.78	.435 (.593)		
	Loneliness	3.00(.33)	8.99	.000***(.000***)		
	Parenting stress	.06(.20)	.34	.733(.942)		
Block 2					.49	.07
	Partner support	-.83(.36)	-2.31	.021*(.041*)		
	Discrimination	1.91(.54)	3.52	.000***(.022*)		
	Family strength	-.50(.21)	-2.41	.016*(.036*)		
	Neighborhood safety	-.07(.20)	-.36	.716(.947)		
Block 3					.52	.03
	ACEs	1.00(.21)	4.73	.000***(.000***)		
Block 4					.53	.01
	ACEs × Loneliness	.21(.09)	2.18	.029*(.050†)		
Model Fit						
R^2 (Total)	.534					
F (df), p	F(*9,324*)=41.32, *p*=.000					

Note: b = unstandardized coefficient, SE = standard error, p = raw p-value, *adj-p* = adjusted p-value after Benjamini-Hochberg FDR correction across 10 tests. $^{\dagger}p < .10$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Figure 1. *Slope Analysis at different levels of moderator (loneliness) on depression*



Note: Interaction probing was based on raw p-values. The loneliness moderation effect was significant at moderate and high levels but not at low levels.

Table 4. *Hierarchical multiple regression predicting anxiety based on individual and contextual factors and ACEs*

Predictor		*b (SE)*	*t*	*p (adj-p)*	R^2	ΔR^2
Block 1					.35	.35
	Self-efficacy	.05(.04)	1.21	.227(.330)		
	Loneliness	1.27(.15)	8.51	.000***(.000***)		
	Parenting stress	-.05(.09)	-.62	.534(.586)		
Block 2					.41	.06
	Partner support	-.20(.16)	-1.25	.212(.340)		
	Discrimination	.86(.24)	3.55	.000***(.020*)		
	Family strength	-.17(.09)	-1.80	.071(.161)		
	Neighborhood safety	.08(.09)	.98	.324(.405)		
Block 3					.46	.04
	ACEs	.50(.09)	5.24	.000***(.000***)		
Model Fit						
R^2 (Total)	.47					
F (df), p	F(*9,324*)=31.74, *p*=.000					

Note: b = unstandardized coefficient, SE = standard error, p = raw p-value, *adj-p* = adjusted p-value after Benjamini-Hochberg FDR correction across 10 tests. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Discussion

- Findings demonstrate that ACEs remain significant even after accounting for other variables.
- While the protective role of social connections against psychopathology is confirmed, the key role of discrimination underscores the need to incorporate diverse sociocultural factors into resilience models and clinical practice.
- The protective role of partner support and family strength in relation to depression, but not anxiety, supports the multisystem resilience model, showing that various factors can promote resilience. However, their effects may vary depending on the outcome.
- A marginally significant moderating effect of ACEs was found: moderate and high levels of loneliness are more strongly associated with depression in individuals with a history of higher ACEs. These results underscore the importance of targeted interventions to reduce loneliness, particularly for individuals with childhood adversity, highlighting the need for personalized, context-sensitive approaches in clinical practice to prevent or mitigate depression.
- There was no evidence of moderating effects of ACEs with loneliness on anxiety nor of ACEs with discrimination, partner support, and family strength on both depression and anxiety, suggesting the importance of integrating the multisystem resilience model with a developmental approach. The lack of moderation effects is likely due to the temporal distance between distal childhood adversity and other variables' more proximal influences. It may be that factors closer in time to ACEs – such as support, secure attachment, or high sensitivity from non-abusive caregivers (e.g., teachers)- serve as protective factors.
- The results also highlight the need for tailored interventions and future research. Strengthening family relationships and partner support may effectively reduce depressive symptoms, but addressing anxiety may require more specialized approaches, such as cognitive-behavioral therapy or addressing external stressors. Further research into resilience in minority groups, the impact of different forms of discrimination (e.g., race and socioeconomic status), and the inclusion of more ethnic groups is warranted. Additionally, investigating mediating pathways and other moderators remains an important area for future research.

Meet the Author

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Fabiola Silletti is a PhD candidate in *Human Relations Sciences, Psychology: Cognitive, Emotional, and Communicative Processes* at the University of Bari Aldo Moro (Italy), under the supervision of Prof. Musso (University of Bari) and Prof. Cindy H. Liu (Brigham and Women's Hospital, Harvard Medical School). Her research focuses on resilience across the lifespan and among diverse populations.

Committed to fostering diversity and inclusivity in all its forms—including ability, religion, gender, and race—she brings both personal experience and academic expertise to her work. This commitment led her to a six-month research visit at the Developmental Risk and Cultural Resilience Lab at Brigham and Women's Hospital (Boston, USA), where she contributed to studies on psychosocial stress across cultures and development.