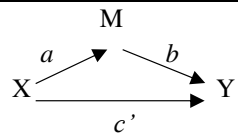


**Supplemental Table 1. Baron & Kelly steps to test the mediation hypothesis**

Baron & Kelly	Regression Analysis	Visual illustration
Step 1	Outcome variable Y (Depression) regressed on independent variable X (Stigma) to test path <i>c</i>	X $\xrightarrow{c}$ Y
Step 2	Mediator variable M (Social isolation) regressed on independent variable X (Stigma) to test path <i>a</i>	X $\xrightarrow{a}$ M
Step 3	Outcome variable Y (Depression) regressed on mediator variable M (Social isolation) to test path <i>b</i>	M $\xrightarrow{b}$ Y
Step 4*	Outcome variable Y (Depression) regressed on independent variable X (Stigma) and mediator variable M (Social isolation) to test path <i>c'</i>	 <pre> graph LR   X -- a --&gt; M   X -- c' --&gt; Y   M -- b --&gt; Y </pre>

The three main measures used in the study to follow the Baron & Kelly procedures are indicated within parentheses. \*After the mediator variable is entered in the regression model, the relationship between the independent and outcome variables should either disappear (full mediation) or significantly diminish (partial mediation).

**Supplemental Table 2. Description of Participants by CLASI assessment**

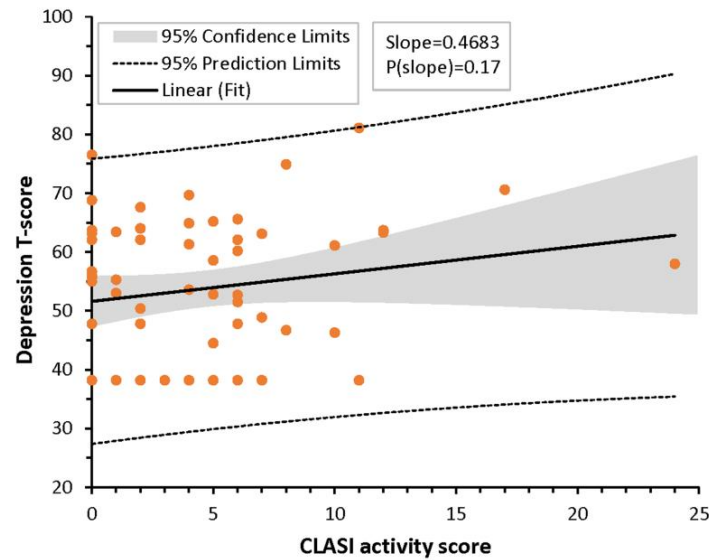
Characteristics	Indicator	Overall (n=121)	CLASI Assessment		P-value
			No (n=62)	Yes (n=59)	
Age at survey (years)	Mean $\pm$ SD	54.1 $\pm$ 13.8	55.9 $\pm$ 14.4	52.2 $\pm$ 13.0	0.1
Disease duration (years)	Mean $\pm$ SD	14.2 $\pm$ 10.0	14.8 $\pm$ 9.8	13.6 $\pm$ 10.2	0.5
Sex, n (%)	Male	15 (12.4)	10 (16.1)	5 (8.5)	0.2
	Female	106 (87.6)	52 (83.9)	54 (91.5)	
Race, n (%)	BlackAA	103 (85.1)	48 (77.4)	55 (93.2)	0.02
	White	18 (14.9)	14 (22.6)	4 (6.8)	
Education (years)	Mean $\pm$ SD	14.5 $\pm$ 3.1	14.7 $\pm$ 2.9	14.2 $\pm$ 3.4	0.4
Marital status, n (%)	Currently married	38 (31.4)	21 (33.9)	17 (28.8)	0.8
	Ever married	43 (35.5)	21 (33.9)	22 (37.3)	
	Never married	40 (33.1)	20 (32.3)	20 (33.9)	
Work status, n (%)	Full- or part-time	48 (41.4)	23 (38.3)	25 (44.6)	0.7
	Out of labor force	31 (26.7)	18 (30.0)	13 (23.2)	
	Unemployed/disabled	37 (31.9)	19 (31.7)	18 (32.1)	
Insurance status, n (%)	No insurance	21 (17.6)	4 (6.7)	17 (28.8)	0.004
	Federal insurance	62 (52.1)	33 (55.0)	29 (49.2)	
	Private insurance	36 (30.3)	23 (38.3)	13 (22.0)	
Depression T-score	Mean $\pm$ SD	53.9 $\pm$ 12.2	57.2 $\pm$ 16.0	53.7 $\pm$ 12.0	0.6
Stigma T-score	Mean $\pm$ SD	51.3 $\pm$ 10.4	49.5 $\pm$ 10.0	53.1 $\pm$ 10.5	0.06
Social Isolation T-score	Mean $\pm$ SD	49.8 $\pm$ 11.3	48.8 $\pm$ 10.7	50.8 $\pm$ 11.9	0.3
Emotional support T-score	Mean $\pm$ SD	51.7 $\pm$ 8.9	52.1 $\pm$ 8.4	51.2 $\pm$ 9.5	0.6

**Supplemental Table 3. Multivariate Regression Analysis of Depression by Stigma, Social Isolation, and Emotional Support: Developing Models**

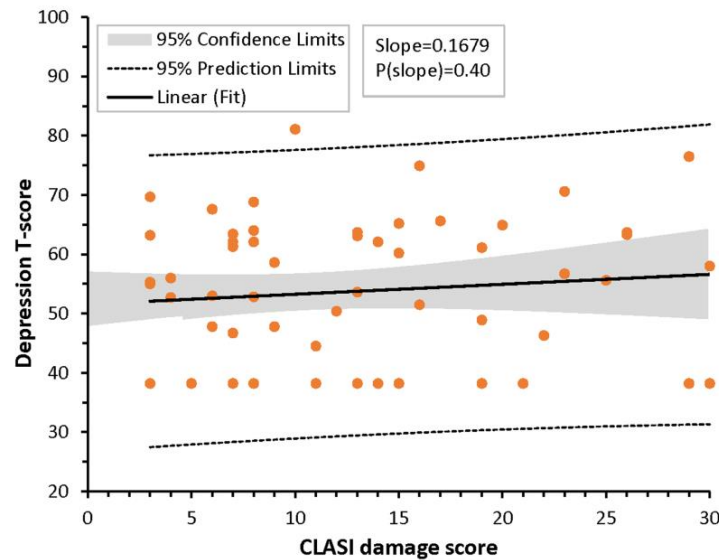
Factor	Model 1 b (95% CI)	Model 2 b (95% CI)	Model 3 b (95% CI)	Model 4 b (95% CI)
<i>Primary exposures</i>				
Stigma	<b>0.75 ( 0.62, 0.89)</b>	<b>0.44 ( 0.23, 0.66)</b>	0.12 (-0.14, 0.39)	0.12 (-0.14, 0.39)
Social isolation			<b>0.40 ( 0.19, 0.62)</b>	<b>0.40 ( 0.19, 0.62)</b>
Emotional support				-0.00 (-0.17, 0.17)
<b>Covariates</b>				
<i>Sociodemographics</i>				
Sex (ref: male)	-0.35 (-4.61, 3.92)	-1.69 (-6.00, 2.62)	-1.66 (-5.67, 2.35)	-1.66 (-5.73, 2.42)
Race (ref: white)	3.08 (-0.67, 6.83)	1.15 (-3.72, 6.01)	1.99 (-2.56, 6.54)	1.99 (-2.59, 6.57)
Age at survey (years)	-0.02 (-0.14, 0.11)	-0.03 (-0.17, 0.11)	0.08 (-0.06, 0.23)	0.08 (-0.06, 0.23)
Education (years)	0.24 (-0.27, 0.75)	<b>0.53 ( 0.01, 1.06)</b>	0.40 (-0.10, 0.89)	0.40 (-0.10, 0.90)
Marital status (ref: currently married)				
Ever married	2.66 (-0.81, 6.13)	<b>3.78 ( 0.11, 7.44)</b>	1.13 (-2.56, 4.82)	1.13 (-2.69, 4.94)
Never married	2.21 (-1.30, 5.73)	<b>4.49 ( 0.80, 8.18)</b>	<b>4.80 ( 1.37, 8.24)</b>	<b>4.80 ( 1.33, 8.28)</b>
Work status (ref: employed)				
Out of labor force	-0.17 (-4.09, 3.75)	-0.85 (-5.13, 3.43)	-1.94 (-5.97, 2.08)	-1.94 (-6.00, 2.12)
Unemployed/unable to work	0.62 (-3.05, 4.28)	0.04 (-3.74, 3.82)	0.37 (-3.15, 3.89)	0.37 (-3.18, 3.92)
<i>Disease-related factors</i>				
DLE subtype (ref: below the neck)				
Above and below the neck		-1.39 (-4.67, 1.89)	-0.69 (-3.77, 2.38)	-0.70 (-3.82, 2.43)
Skindex 29+3				
Symptoms		0.04 (-0.05, 0.13)	0.04 (-0.04, 0.12)	0.04 (-0.04, 0.13)
CLE domain		0.06 (-0.02, 0.14)	0.04 (-0.03, 0.12)	0.04 (-0.03, 0.12)
Physical health (T-score)		<b>-0.36 (-0.58, -0.13)</b>	<b>-0.29 (-0.51, -0.08)</b>	<b>-0.29 (-0.51, -0.08)</b>
Current treatment				
Hydroxychloroquine		0.43 (-2.64, 3.51)	1.54 (-1.38, 4.45)	1.54 (-1.42, 4.50)
Local steroids		-0.74 (-3.74, 2.26)	-0.56 (-3.35, 2.23)	-0.56 (-3.39, 2.27)
Systemic steroids/immunosuppressors		-1.86 (-5.61, 1.90)	-1.34 (-4.85, 2.16)	-1.34 (-4.87, 2.19)
(R-Square)	0.586	0.672	0.720	0.720
Percentage mediated	-	-	72.0%	71.4%
Sobel test	-	-	<0.001	<0.001

Models were tested among 101 participants with DLE; 8 DLE participants had missing data on 1 or more variables.

Abbreviations: b=beta coefficient; CI=confidence intervals; bolded values indicate statistical significance (95% CI no crossing 0).



**Supplemental Figure 1.** Relationship between depression and skin activity in 59 participants with primary chronic cutaneous lupus erythematosus. Depression was measured with the PROMIS Depression SF 8a and values are expressed as T-scores. Skin activity was measured with the Cutaneous Lupus Erythematosus Disease Area and Severity Index (CLASI-A; range 0-70).



**Supplemental Figure 2.** Relationship between depression and skin damage in 59 participants with primary chronic cutaneous lupus erythematosus. Depression was measured with the PROMIS Depression SF 8a and values are expressed as T-scores. Skin damage was measured with the Cutaneous Lupus Erythematosus Disease Area and Severity Index (CLASI-D; range 0-56).