



# Optimism, Lifetime Financial Stressors, and Mental Health Among Racially, Sexually, and Gender Minoritized Emerging Adults

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## Abstract

**Background** Although racially, sexually, and gender minoritized (RSGM) persons experience chronic and sometimes severe financial life stressors that increase their risk of mental health problems across the life course, no studies in this population have examined psychological resilience factors, such as optimism, that may mitigate these negative effects.

**Purpose** To investigate how exposure to financial stressors is associated with symptoms of anxiety, depression, and somatization, and whether optimism moderates these associations.

**Method** Two hundred and eighty-five RSGM emerging adults ( $M_{age}=25.18$ ,  $SD=1.94$ ) completed the Stress and Adversity Inventory and Brief Symptom Inventory online. Participants were Black (22.1%), Latinx (57.9%), and biracial Black–Latinx (20%), and they primarily identified as male (94.7%) and gay (74.2%).

**Results** As hypothesized, multiple regression analyses with interaction terms indicated that more frequent and severe acute and chronic lifetime financial stressors were related to greater anxious, depressive, and somatic symptoms. Moreover, greater optimism was associated with fewer mental health symptoms. Additionally, greater optimism was associated with fewer somatic symptoms than lower optimism when exposed to more financial stressors. Similarly, greater optimism attenuated the negative effects of greater financial stressors' severity on depressive symptoms.

**Conclusions** Financial stressors are related to worse mental health among RSGM emerging adults, and optimism may mitigate these effects. Screening for lifetime financial stressors and bolstering optimism may help reduce mental health disparities related to financial stressors in this population.

**Keywords** Financial stressor exposure · Optimism · Anxious symptoms · Depressive symptoms · Somatic symptoms · Racially · Sexually · And gender minoritized emerging adults

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The number and severity of acute (e.g., episodic economic hardships) and chronic (e.g., pervasive economic hardship) financial lifetime stressors are related to experiencing more depressive symptoms and physical health problems, as well as greater systemic inflammation in the general population [1–5]. Although most prior work on this topic focuses on general population samples, financial stressors disproportionately impact persons belonging to historically disadvantaged social groups, such as persons who are racially, sexually, and gender minoritized [6], henceforth, RSGM. Exposure to financial stressors across the lifespan is also strongly related to mental health disparities in minoritized populations [7–9]. Parallel lines of research show that racially or ethnically minoritized (e.g., Black, Latinx) and sexually and gender minoritized (e.g., lesbian, gay, bisexual, pansexual, queer, and transgender individuals) persons are more likely

to live in poverty [10–12], experience food and housing insecurity [13–16], and have limited economic mobility [17, 18] relative to their white and heterosexual/straight counterparts. These specific economic social and structural determinants of health [8, 19–21] constitute an oppressive social context linked to systemic racism [22, 23] and heterosexism [24–26], which initiate and perpetuate mental and physical health disparities among multiply minoritized groups such as RSGM persons.

Resilience theoretical frameworks [27–30] suggest that a person's capacity to positively adapt to adversity is a multidimensional process that encompasses drawing from individual (e.g., faith, self and emotion regulation, meaning-making, optimism), relational (e.g., friend and family social support), sociocultural (e.g., positive views of one's identity), and ecological (e.g., access to healthcare and secure housing, employment/career opportunities) resources. At the individual level, mindfulness [31, 32], spirituality [33], and optimism [34, 35] are intrapersonal resilience resources known to help individuals cope with the deleterious effects of financial strain on personal well-being. Optimism is also known to buffer against stressors related to food insecurity where greater optimism was associated with decreases in anxiety symptoms over three years relative to persons with lower optimism [36]. The health enhancing behavioral correlates of optimism are supported by the stress process framework [37], transactional theory [38], and hopelessness theory of depression [39], which together posit that optimism promotes cognitive reframing, positive affect, proactive problem-solving, and overall engagement with healthier adaptive coping strategies [40–42] that can protect against or mitigate the effects of stressor exposure on individual mental health and well-being.

Although meta-analyses indicate that greater optimism is related to better mental and physical health outcomes among the general population [43–45], the current body of research on lifetime financial stressor exposure and optimism has largely neglected these associations among RSGM populations. Given the unique, pervasive, and severe experiences of financial stressors among RSGM [46], which compound with heterosexism and racism [6], it is imperative that we understand whether and how resilience factors such as optimism can reduce the effects of lifetime financial stressor exposure on worse mental health outcomes within this population to inform prevention and intervention efforts aimed to address RSGM mental health disparities.

## Optimism and Mental Health

Optimism is a viable individual-level intrapersonal psychological resource that may mitigate the negative effects of lifetime stressors on health. Optimism refers to an individual's capacity to imagine and expect a more positive

future, including favorable events and life conditions, to view challenges as manageable, temporary, and as opportunities for growth, all which enable individuals to bounce back from setbacks, overcome stressful circumstances, and maintain mental and physical well-being [40, 42, 47, 48]. In the general population, optimism is associated with positive mental and physical health outcomes, including fewer depressive symptoms and a lower likelihood of developing depressive symptoms across adulthood [40, 42, 47, 49, 50]. Specifically, Giltay and colleagues [49] showed that persons who expected more from life, who looked forward to the years ahead, and who had plans for their futures evidenced lower risk for depressive symptoms for up to 15 years.

Among racially and ethnically minoritized populations, optimism is associated with lifetime exposure to financial stressors [34, 35, 51], and greater optimism is shown to moderate the effect of lifetime financial stressor exposure on mental health symptoms. Among Black women who experienced more childhood and concurrent financial stressors, for example, greater optimism in adulthood was related to fewer anxious, anhedonic, and general depressive symptoms [52]. Another study revealed that high optimism was related to fewer anxious, anhedonic, and general depressive symptoms among Latinx women who reported more financial stressors relative to Latinx women with low optimism [53]. The limited research on optimism with SGM adults suggests that optimism is associated with fewer depressive symptoms [54], and a more positive outlook on life has been associated with greater life satisfaction in unsupportive work environments [55]. Together, these studies demonstrate that optimism is likely an individual-level resilience resource that could protect or buffer against the deleterious effects of financial stressors on mental health among minoritized groups of people when considering a lifespan perspective. However, we are not aware of any studies that have examined these associations among RSGM persons.

## Intersectionality, Lifetime Financial Stressors, Optimism, and Mental Health

Intersectionality perspectives [56–59] provide a critical lens to examine how social conditions, such as high economic or financial stressors, serve to oppress multiply minoritized persons by creating and perpetuating health disparities at the intersections of sexual orientation, gender, race, ethnicity, and socioeconomic status. RSGM persons are exposed to major life adversities at the intersections of racism and heterosexism [6, 60], and these intersectional experiences are tightly intertwined with experiencing financial stressors [61, 62] that predict worse mental health outcomes [46, 63, 64]. For example, Latinx gay and bisexual men reported a high

incidence of not having enough money for basic necessities in the past year, and this chronic financial stressor was associated with heightened psychological distress [61]. In a sample of Black, Latinx, and biracial Black–Latinx predominately gay men, greater and more severe financial stressor exposure across the lifespan was related to greater anxious, depressive, and somatic symptoms [46].

The health-promoting and protective benefits of optimism for RSGM could be further understood through the integration of two concepts: “queer futurity” [65] and “comprehensive mattering” [66]. Both theoretical perspectives emphasize how SGM individuals and Black boys and young men elicit hope and optimism to envision a brighter future and reimagine improved socioeconomic conditions as forms of healing and resistance to structural challenges perpetuated by systemic heterosexism and racism. These perspectives corroborate the previously described limited empirical research among racially or ethnically minoritized or SGM persons suggesting that optimism can protect or buffer against effects of financial stressor exposure on worse mental health symptoms. Therefore, it is possible that optimism may mitigate the negative effects of lifetime financial stressor exposure on mental health among RSGM. Nevertheless, we have no knowledge of any research that has examined optimism as mitigating factor on the effects of lifetime financial stressor exposure on mental health symptoms, despite the critical need to identify resilience processes that may reduce disease risk and enhance well-being among multiply minoritized and economically disenfranchised populations.

## Present Study

This study investigated how exposure to financial stressors that have occurred during the life course—namely, acute and chronic stressors involving the primary household breadwinner losing their job and experiencing significant financial strain—and optimism were associated with mental health symptoms among Black, Latinx, and biracial Black–Latinx SGM emerging adults. More specifically, we examined how the frequency and severity of acute and chronic lifetime financial stressors were related to participants’ symptoms of anxiety, depression, or somatization and self-reported optimism while accounting for relevant factors—namely, race, ethnicity, sexual orientation, employment, and education status. Based on the research summarized above, we hypothesized that greater financial stressor exposure and severity would be related to lower optimism and experiencing more anxious, depressive, and somatic symptoms. Second, we hypothesized that optimism would be inversely associated with each mental health outcome. Finally, we hypothesized that optimism would moderate the effect of

lifetime financial stressors on each mental health outcome, such that greater optimism would be associated with fewer mental health symptoms—and less optimism would be associated with more mental health symptoms.

## Method

### Participants and Procedures

Data from 393 participants (19–29 years old;  $M = 25.07$ ,  $SD = 2.00$ ) were drawn from the Healthy Young Men’s Cohort Study [67] at Wave 6 in 2020, which was 3 years into the prospective study. In addition to standard study procedures, participants completed the Stress and Adversity Inventory (STRAIN; [68]) as a standalone assessment to measure lifetime stressor exposure. Two-hundred eighty-five ( $n = 285$ ) participants completed the STRAIN.

Participants in the parent study were recruited using free and paid online advertisements, including participant (snowball sampling) and health clinic referrals. At baseline, participants were eligible if they were (a) between 16 and 24 years old at Wave 1; (b) assigned male sex at birth; (c) identified as gay, bisexual, or uncertain about their sexual orientation; (d) reported a sexual encounter with a man in the previous 12 months; (e) self-identified as African American or Black, Latinx, or biracial Black–Latinx; and (f) were living in Los Angeles County at the time of recruitment. Given this study’s focus on financial stressor exposure, only participants who completed the STRAIN ( $n = 285$ ; age:  $M = 25.18$ ,  $SD = 1.94$ ) were included in the present analysis. Participants’ demographic characteristics are presented in Table 1.

This study was approved by the Institutional Review Board at Children’s Hospital Los Angeles, and participants provided written consent to participate and were compensated for their time and efforts.

## Measures

### Acute and Chronic Financial Lifetime Stressor Count and Severity

Exposure to financial stressors occurring across the life course was assessed using the STRAIN ([68]; see <https://www.strainsetup.com>). The STRAIN assesses two key financial stressors: an acute financial stressor was characterized as the household’s primary breadwinner losing their job; and a chronic financial stressor was characterized as experiencing significant financial burden during adulthood, during which time the participant had difficulty paying for basic things such as food or rent. If participants reported that they had an acute financial stressor,

**Table 1** Participants' sociodemographic characteristics

	Number	Percent
<b>Ethnicity and race</b>		
Black	63	22.1
Latinx	165	57.9
Biracial Black–Latinx	57	20.0
<b>Sexual orientation</b>		
Gay	210	73.7
Bisexual or pansexual	39	13.7
Queer	22	7.7
Another sexual identity	14	4.9
<b>Gender</b>		
Cisgender male	210	94.7
Transgender	2	0.7
Nonbinary	11	3.9
Non-cisgender other	2	0.7
<b>Education</b>		
High school or less	59	20.7
More than high school	224	78.6
Missing	2	0.7
<b>Employment</b>		
Employed	227	19.3
Unemployed	55	79.6
Missing	3	1.1

they were further prompted to report how many times the primary breadwinner lost their job, up to 5 or more times; as such, the range for job loss frequency was 0–5. If participants reported experiencing a chronic financial stressor, they were not asked how many times it happened but instead were asked to report the length of time the significant financial burden occurred. Therefore, the possible range for chronic financial stressor experience was 0–1. For both acute and chronic financial stressors, participants were asked to rate how stressful or threatening the stressor was for them at its worst on a scale of 0 (*very slightly or not at all*) to 5 (*extremely*), referred to as *severity*. If the participant reported multiple acute financial stressors (job losses), they were asked to think about the most difficult time when rating how stressful the job loss was for them. Participants' responses were summed to create an index of *acute*, *chronic*, and *total financial lifetime stressor count* and *acute*, *chronic*, and *total financial stressor severity*, which yielded six indices of financial stressor exposure used as predictor variables in the main analyses.

### Optimism

The well-validated 6-item Life Orientation Test [42, 69] was used to measure optimism. Participants rated items (e.g., “I hardly ever expect things to go my way” and “Overall, I

expect more good things to happen to me than bad”) on a scale ranging from 0 (*I disagree a lot*) to 4 (*I agree a lot*). Negatively worded items were reverse coded, with higher average scores indicating more optimism (Cronbach's  $\alpha=0.77$ ).

### Anxious, Depressive, and Somatic Symptoms

Mental health symptoms were measured using the 18-item Brief Symptom Inventory [70]. Participants rated their experiences of anxious (e.g., “feeling fearful”; Cronbach's  $\alpha=0.83$ ), depressive (e.g., “feeling no interest in things”; Cronbach's  $\alpha=0.83$ ), and somatic (e.g., “nausea or upset stomach”; Cronbach's  $\alpha=0.78$ ) symptoms during the past 7 days on a scale ranging from 0 (*not at all*) to 4 (*extremely*). As recommended for the BSI subscales, participants' raw scores per mental health symptom were *z*-scored and then converted into *t*-scores. Higher *t*-scores indicated more symptoms.

### Covariates

Covariates included participants' race and ethnicity, gender, sexual orientation, education, and employment status. Race and ethnicity included three categories of Black (not Latinx), Latinx (not Black), and biracial Black–Latinx. In the subsequent models, participants who identified as Latinx were the reference group. Given the smaller proportion of transgender, genderqueer, and non-binary as well as bisexual/pansexual, queer, and other sexual minority persons enrolled in the study, gender was coded as 0 (*cisgender*) and 1 (*non-cisgender*), and sexual orientation was coded as 0 (*gay*) or 1 (*another sexual minority identity*) to retain a larger sample in the subsequent analyses. Education was coded as 0 (*high school or less*) or 1 (*more than high school*). Similarly, employment status was coded as 0 (*not employed*) or 1 (*employed at least part-time*). These covariates were included because persons who identify as non-cisgender, persons with bisexual, pansexual, queer, or with other sexual minority identities [71], and persons who are socioeconomically disadvantaged [61, 72] on average report worse mental health, than cisgender, monosexual (i.e., gay), or more affluent counterparts.

### Analytic Strategy

First, we examined correlations among *acute financial stressor count* (the number of times, ranging from 0 to 5 or more, the household's primary breadwinner lost their job), *chronic financial stressor count* (whether the participant experienced significant financial burden as an adult), and *total financial stressor count* (the sum of acute and chronic counts), as well as *acute financial stressor severity* (rating,

from 0 to 5, the most stressful or threatening job loss experience), *chronic financial stressor severity* (rating from 0 to 5, the most stressful or threatening significant financial burden), *total financial stressor severity* (the sum acute and chronic severity), optimism, anxious, depressive, and somatic symptoms. Each financial stressor variable (predictors) and optimism (moderator) were mean centered prior to creating interaction terms. Six linear multiple regression analyses with interaction terms were fitted as path models with the *lavaan* package [73] in R version 4.4.1 [74]. Covariates were adjusted in the path models. Significant interaction terms were probed with simple slope analyses within one standard deviation (*SD*) of the moderator. Confidence intervals (*CI*s) were obtained for model estimates using maximum likelihood estimation with robust standard errors. Model fit was assessed with the comparative fit index (*CFI*), root mean square error of approximation (*RMSEA*), and standardized root mean residual (*SRMR*). Model fit was considered acceptable if *CFI* values were greater than 0.95, *RMSEA* values were less than 0.08, and *SRMR* values were less than 0.06 [75].

Missing data occurred at a low frequency, with less than 0.1% of data missing overall. The missing completely at random test [76] was not statistically significant,  $\chi^2(10)=9.18$ ,  $p=0.515$ ; therefore, data were assumed to be at least missing at random. Full information maximum likelihood was used to estimate missing data in the moderation analyses.

## Results

### Descriptive Analyses

Table 2 displays the means, standard deviations, and zero-order correlations between acute, chronic, and total financial stressor counts and severity, optimism, and mental health variables. As shown, all financial stressor variables were positively correlated.

Acute financial stressor count was not associated with any mental health symptoms or optimism. Chronic financial stressor count was positively associated with all mental health symptoms, but not with optimism. The total count of financial lifetime stressors was positively associated with depressive and somatic symptoms, but not with anxious symptoms or optimism.

Acute financial stressor severity was not associated with any mental health symptom or optimism. Chronic financial stressor severity was positively associated with all mental health symptoms and negatively associated with optimism. Total financial stressor severity was positively associated with all mental health outcomes, but not with optimism.

Optimism was negatively associated with all mental health symptoms. Finally, anxious, depressive, and somatic symptoms were all positively intercorrelated and covaried in the main regression models.

**Table 2** Zero-order correlations among financial lifetime stressors, optimism, and mental health

	<i>M</i>	<i>SD</i>	Range	Skewness	1	2	3	4	5	6	7	8	9
1. Acute financial lifetime stressor count	0.34	0.82	0–5	3.16	–								
2. Chronic financial stressor count	0.60	0.49	0–1	–0.41	0.225**	–							
3. Total financial stressor count	0.94	1.05	0–6	1.93	0.890**	0.645**	–						
4. Acute financial lifetime stressor severity	0.76	1.61	0–5	1.84	0.794**	0.264**	0.746**	–					
5. Chronic financial stressor severity	2.22	2.02	0–5	0.08	0.277**	0.896**	0.637**	0.299**	–				
6. Total financial stressor severity	2.98	2.94	0–10	0.74	0.626**	0.762**	0.848**	0.754**	0.852**	–			
7. Optimism	2.58	0.82	0.33–4	–0.16	–0.012	–0.093	–0.053	0.048	–.166**	–0.088	–		
8. Anxious symptoms	2.91	4.20	0–19	1.84	0.031	0.157**	0.098	0.061	0.225**	0.188**	–.288**	–	
9. Depressive symptoms	3.51	4.69	0–22	1.69	0.066	0.176**	0.134*	0.099	0.228**	0.211**	–.406**	0.790**	–
10. Somatic symptoms	1.96	3.25	0–18	2.55	0.093	0.145*	0.141*	0.088	0.169**	0.164**	–.213**	0.719**	0.603**

*N* = 285

\* $p < .05$ ; \*\* $p < .01$  (two-tailed)

## Associations Across Financial Lifetime Stressor Exposure, Optimism, and Mental Health by Demographic Characteristics

A one-way analysis of variance showed a significant main effect of race and ethnicity on optimism,  $F(2, 282) = 4.60$ ,  $p = 0.011$ ,  $\eta^2 = 0.032$ . Tukey's honest significant difference post hoc analyses indicated that biracial Black–Latinx participants ( $M = 2.3$ ,  $SD = 0.7$ ) reported less optimism than Black participants ( $M = 2.8$ ,  $SD = 0.7$ ;  $p = 0.008$ ). No other racial or ethnic group differences emerged.

Participants who identified as another sexual minority (other than gay) reported elevated anxious ( $M = 4.2$ ,  $SD = 4.9$ ;  $t[281] = -3.10$ ,  $p = 0.002$ ) and depressive ( $M = 5.3$ ,  $SD = 6.0$ ;  $t[281] = -4.14$ ,  $p < 0.001$ ) symptoms as compared to gay participants ( $M = 2.5$ ,  $SD = 3.8$  and  $M = 2.9$ ,  $SD = 4.0$ , respectively). Participants who identified as non-cisgender also reported higher anxious ( $M = 6.1$ ,  $SD = 5.5$ ;  $t[283] = 3.10$ ,  $p = 0.002$ ) and depressive ( $M = 6.1$ ,  $SD = 4.3$ ;  $t[283] = 2.18$ ,  $p = 0.030$ ) symptoms than cisgender participants ( $M = 2.7$ ,  $SD = 4.1$  and  $M = 3.4$ ,  $SD = 4.7$ , respectively). Optimism was lower among participants whose education level was high school degree or less ( $M = 2.4$ ,  $SD = 0.9$ ;  $t[281] = -2.21$ ,  $p = 0.028$ ) as compared to those with at least some college education ( $M = 2.6$ ,  $SD = 0.8$ ). Last, unemployed participants reported greater somatic symptoms ( $M = 3.0$ ,  $SD = 4.2$ ;  $t[280] = 2.74$ ,  $p = 0.007$ ) than those who were employed at least part-time ( $M = 1.7$ ,  $SD = 2.9$ ). There were no other bivariate group differences.<sup>1</sup>

## Associations Among Financial Lifetime Stressor Exposure, Optimism, and Mental Health

Results and model fit indices for the six regression models are presented in Tables 3 and 4. Overall, models had adequate fit to the data. The results are summarized by acute financial stressor count (number of times the household's primary breadwinner lost their job), chronic financial stressor count (whether the participant experienced significant financial stressors as an adult), total financial stressor count (Table 3), and by acute, chronic, and total severity (Table 4).

<sup>1</sup> Additional sensitivity analyses indicated no group differences in optimism  $t(391) = -.52$ ,  $p > .05$ ; anxiety symptoms  $t(391) = .83$ ,  $p > .05$ ; depressive symptoms  $t(391) = .61$ ,  $p > .05$ ; somatization symptoms  $t(391) = 1.58$ ,  $p > .05$ ; education ( $\chi^2 = .004$ ,  $p > .05$ ); or employment status ( $\chi^2 = .87$ ,  $p > .05$ ) when comparing participants who completed the STRAIN ( $n = 285$ ) and participants who did not complete the STRAIN ( $n = 108$ ).

## Acute Financial Stressor Count

Consistent with our hypotheses, the number of times the household's primary breadwinner lost their job was significantly related to experiencing more anxious, depressive, and somatic symptoms. Optimism was negatively associated with all mental health symptoms; however, optimism did not moderate the effect of acute financial stressor count on the mental health outcomes assessed.

## Chronic Financial Stressor Count

Contrary to our hypotheses, experiencing significant financial stressors in adulthood was not associated with anxious, depressive, or somatic symptoms. As in the previous model, optimism was negatively related to anxious, depressive, and somatic symptoms. Moreover, as predicted, optimism moderated the effect of chronic financial stressor count on somatic symptoms (Fig. 1A) but not anxious or depressive symptoms. Somatic symptoms were higher for participants who reported lower ( $-1$  SD) optimism ( $b = 0.70$ , 95% CI [0.11, 1.29]). However, chronic financial stressor count was not associated with somatic symptoms among participants who reported higher ( $+1$  SD) optimism ( $b = -0.18$ , 95% CI [-0.75, 0.39]). Optimism did not moderate the effect of experiencing significant financial stressors on anxious or depressive symptoms.

## Total Financial Lifetime Stressor Count

As hypothesized, experiencing more financial stressors during the life course (both job losses and significant financial stressors in adulthood) was significantly associated with more somatic symptoms but not associated with anxious or depressive symptoms. Also, consistent with our hypotheses, optimism was negatively associated with anxious, depressive, and somatic symptoms. In addition, as expected, the effect of financial lifetime stressor total count on somatic symptoms was moderated by optimism (see Fig. 1B). Specifically, experiencing more financial stressors during the life course was related to somatic symptoms, but only for participants who reported lower ( $-1$  SD) optimism ( $b = 0.73$ , 95% CI [0.21, 1.25]). In contrast, financial lifetime stressor total count was not associated with somatic symptoms for participants who reported higher ( $+1$  SD) optimism ( $b = 0.04$ , 95% CI [-0.36, 0.44]). Optimism did not moderate the effect of total financial lifetime stressor count on anxious or depressive symptoms.

## Acute Financial Stressor Severity

Contrary to expectations, the perceived severity of job loss—the extent to which the most difficult job loss was

**Table 3** Financial lifetime stressors counts and optimism predicting mental health

	$\beta$	<i>b</i>	<i>SE</i>	LCI	UCI	<i>R</i> <sup>2</sup>
<b>Model 1a. Acute financial lifetime stressor count</b>						
<b>Outcome: Anxious symptoms</b>						0.16
Number of job losses by primary breadwinner	0.16	0.23	0.09	<b>0.06</b>	<b>0.40</b>	
Optimism	−0.27	−1.38	0.28	<b>−1.92</b>	<b>−0.84</b>	
Number of job losses × optimism	−0.03	−0.05	0.10	−0.26	0.15	
Black	−0.03	−0.32	0.57	−1.43	0.79	
Biracial Black–Latinx	−0.11	−1.11	0.58	−2.25	0.03	
Sexual orientation	0.11	1.06	0.54	<b>0.01</b>	<b>2.11</b>	
Gender	0.12	2.34	1.31	−0.23	4.90	
Education	0.04	0.39	0.59	−0.76	1.54	
Employment	−0.12	−1.23	0.68	−2.57	0.11	
<b>Outcome: Depressive symptoms</b>						0.25
Number of job losses by primary breadwinner	0.17	0.27	0.10	<b>0.08</b>	<b>0.46</b>	
Optimism	−0.39	−2.19	0.30	<b>−2.78</b>	<b>−1.59</b>	
Number of job losses × optimism	−0.09	−0.17	0.11	−0.38	0.03	
Black	−0.04	−0.04	0.59	−1.55	0.75	
Biracial Black–Latinx	−0.12	−1.37	0.63	<b>−2.60</b>	<b>−0.14</b>	
Sexual orientation	0.19	1.99	0.68	<b>0.65</b>	<b>3.33</b>	
Gender	0.06	1.17	1.07	−0.93	3.26	
Education	0.03	0.37	0.60	−0.82	1.55	
Employment	−0.05	−0.55	0.67	−1.85	0.76	
<b>Outcome: Somatic symptoms</b>						0.11
Number of job losses by primary breadwinner	0.15	0.17	0.07	<b>0.03</b>	<b>0.30</b>	
Optimism	−0.20	−0.79	0.21	<b>−1.19</b>	<b>−0.38</b>	
Number of job losses × optimism	−0.08	−0.12	0.08	−0.26	0.03	
Black	−.02	−0.18	0.52	−1.21	0.85	
Biracial Black–Latinx	−.08	−0.63	0.42	−1.45	0.19	
Sexual orientation	0.08	0.58	0.46	−0.32	1.48	
Gender	0.00	0.07	0.83	−1.56	1.70	
Education	0.07	0.55	0.44	−0.32	1.42	
Employment	−0.18	−1.46	0.57	<b>−2.58</b>	<b>−0.34</b>	
<b>Fit indexes</b>	$\chi^2=5.45, df=3, p=.142$ ; CFI=.996; RMSEA=.054; SRMR=.016					
<b>Model 1b. Chronic financial lifetime stressor count</b>						
<b>Outcome: Anxious symptoms</b>						0.14
Significant financial stressor experience	0.01	0.07	0.26	−0.44	0.58	
Optimism	−0.29	−1.46	0.28	<b>−2.01</b>	<b>−0.91</b>	
Significant financial stressor experience × optimism	−0.02	−0.13	0.36	−0.84	0.57	
Black	−0.03	−0.31	0.59	−1.48	0.85	
Biracial Black–Latinx	−0.10	−1.04	0.58	−2.19	0.10	
Sexual orientation	0.13	1.20	0.57	<b>0.08</b>	<b>2.33</b>	
Gender	0.12	2.25	1.26	−0.22	4.71	
Education	0.04	0.41	0.60	−0.76	1.58	
Employment	−0.11	−1.14	0.70	−2.51	0.23	
<b>Outcome: Depressive symptoms</b>						0.23
Significant financial stressor experience	0.04	0.24	0.27	−0.28	0.76	
Optimism	−0.40	−2.31	0.31	<b>−2.92</b>	<b>−1.70</b>	
Significant financial stressor experience × optimism	0.00	0.03	0.36	−0.68	0.73	
Black	−0.04	−0.46	0.62	−1.67	0.76	
Biracial Black–Latinx	−0.11	−1.26	0.63	<b>−2.50</b>	<b>−0.01</b>	

**Table 3** (continued)

	$\beta$	$b$	$SE$	LCI	UCI	$R^2$
Sexual orientation	0.19	2.03	0.71	0.63	3.42	0.10
Gender	0.05	1.03	1.05	− 1.03	3.10	
Education	0.03	0.38	0.62	− 0.84	1.60	
Employment	− 0.04	− 0.42	0.69	− 1.77	0.93	
<b>Outcome: Somatic symptoms</b>						
Significant financial stressor experience	0.07	0.26	0.22	− 0.16	0.68	
Optimism	− 0.22	− 0.85	0.20	− <b>1.24</b>	− <b>0.47</b>	
Significant financial stressor experience × optimism	− 0.12	− 0.54	0.25	− <b>1.02</b>	− <b>0.05</b>	
Black	− .02	− 0.19	0.53	− 1.23	0.84	
Biracial Black–Latinx	− .07	− 0.55	0.43	− 1.39	0.28	
Sexual orientation	0.10	0.71	0.47	− 0.21	1.63	0.15
Gender	0.00	− 0.05	0.85	− 1.72	1.63	
Education	0.06	0.51	0.45	− 0.37	1.39	
Employment	− 0.17	− 1.42	0.59	− <b>2.57</b>	− <b>0.27</b>	
<b>Fit indexes</b>						
$\chi^2=8.74, df=3, p=.033$ ; CFI = .991; RMSEA = .082 SRMR = .019						
<b>Model 1c. Financial lifetime stressor count</b>						
<b>Outcome: Anxious symptoms</b>						
Total financial lifetime stressor count	0.08	0.31	0.21	− 0.10	0.73	
Optimism	− 0.28	− 1.44	0.28	− <b>1.98</b>	− <b>0.89</b>	
Total financial lifetime stressor count × optimism	− 0.02	− 0.12	0.26	− 0.62	0.38	
Black	− 0.03	− 0.28	0.59	− 1.43	0.87	
Biracial Black–Latinx	− 0.10	− 1.05	0.58	− 2.19	0.09	
Sexual orientation	0.12	1.15	0.57	<b>0.04</b>	<b>2.26</b>	
Gender	0.12	2.31	1.28	− 0.21	4.82	
Education	0.04	0.37	0.60	− 0.80	1.54	
Employment	− 0.11	− 1.19	0.69	− 2.55	0.17	
<b>Outcome: Depressive symptoms</b>						
Total financial lifetime stressor count	0.10	0.43	0.23	− 0.02	0.88	0.23
Optimism	− 0.40	− 2.26	0.30	− <b>2.86</b>	− <b>1.67</b>	
Total financial lifetime stressor count × optimism	− 0.05	− 0.24	0.28	− 0.79	0.30	
Black	− 0.04	− 0.41	0.61	− 1.60	0.78	
Biracial Black–Latinx	− 0.11	− 1.27	0.63	− <b>2.51</b>	− <b>0.03</b>	
Sexual orientation	0.19	2.05	0.71	<b>0.66</b>	<b>3.45</b>	
Gender	0.05	1.09	1.06	− 1.00	3.17	
Education	0.03	0.33	0.61	− 0.87	1.54	
Employment	− 0.04	− 0.49	0.68	− 1.83	0.84	
<b>Outcome: Somatic symptoms</b>						
Total financial lifetime stressor count	0.12	0.38	0.18	<b>0.03</b>	<b>0.74</b>	0.11
Optimism	− 0.21	− 0.81	0.20	− <b>1.20</b>	− <b>0.42</b>	
Total financial lifetime stressor count × optimism	− 0.11	− 0.42	0.19	− <b>0.79</b>	− <b>0.05</b>	
Black	− 0.02	− 0.14	0.52	− 1.16	0.89	
Biracial Black–Latinx	− 0.07	− 0.57	0.42	− 1.39	0.25	
Sexual orientation	0.09	0.66	0.47	− 0.26	1.58	
Gender	0.00	0.06	0.85	− 1.60	1.72	
Education	0.06	0.50	0.45	− 0.38	1.38	
Employment	− 0.18	− 1.46	0.58	− <b>2.60</b>	− <b>0.33</b>	
<b>Fit indexes</b>						
$\chi^2=3.22, df=3, p=.359$ ; CFI = 1.00; RMSEA = .016, SRMR = .013						

$\beta$  standardized beta coefficients,  $b$  unstandardized beta coefficients,  $SE$  standard error,  $LCI$  95% lower confidence interval,  $UCI$  95% upper confidence interval. Significant CIs are presented in bold font

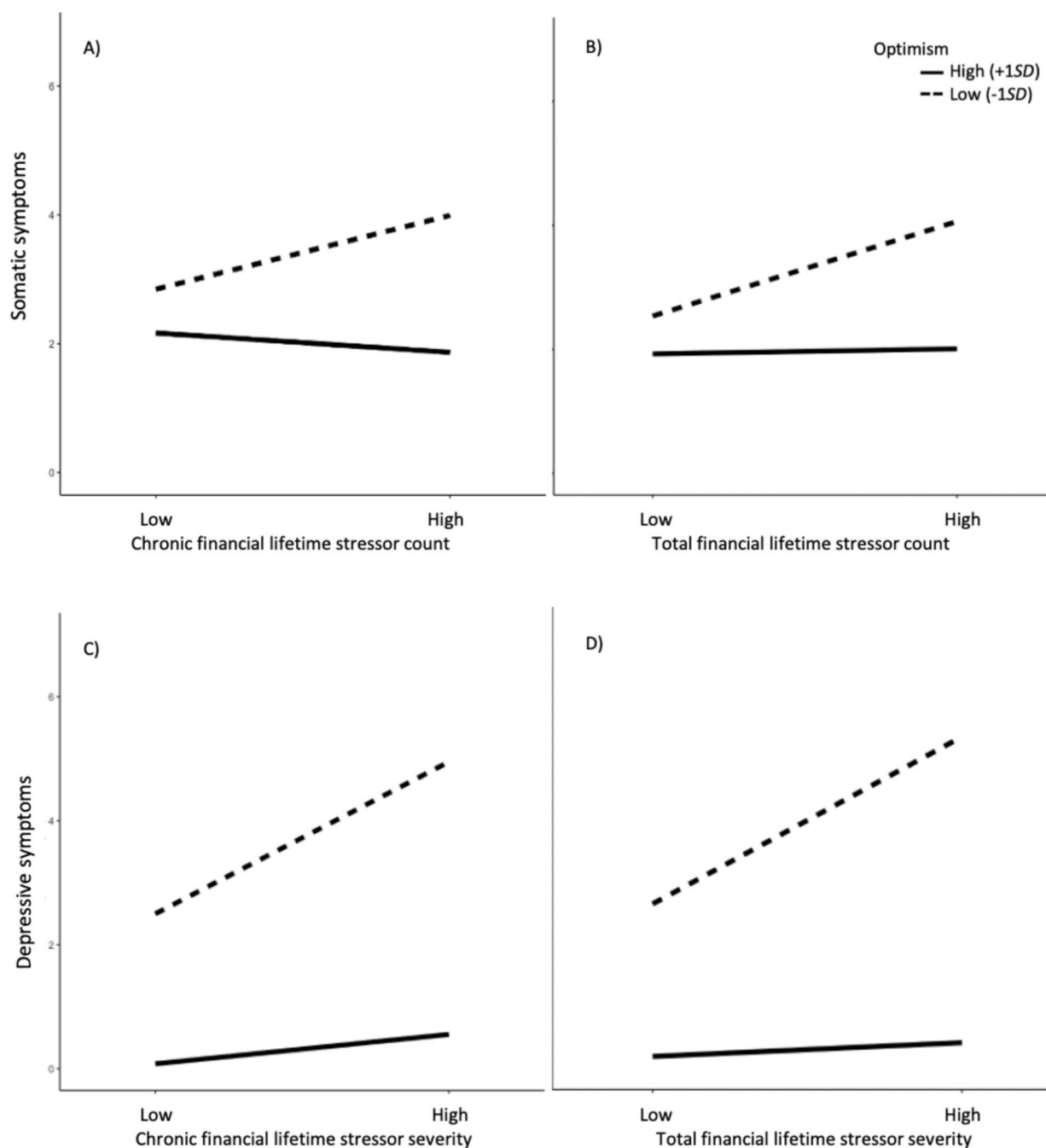
**Table 4** Financial lifetime stressor severity and optimism predicting mental health

	$\beta$	$b$	$SE$	LCI	UCI	$R^2$
<b>Model 2a. Acute financial lifetime stressor severity</b>						
<b>Outcome: Anxious symptoms</b>						0.15
Severity of most difficult job loss	0.06	0.16	0.17	−0.17	0.49	
Optimism	−0.29	−1.48	0.28	− <b>2.03</b>	− <b>0.93</b>	
Severity of most difficult job loss × optimism	0.00	0.00	0.21	−0.40	0.41	
Black	−0.03	−0.31	0.59	−1.46	0.85	
Biracial Black–Latinx	−0.10	−1.06	0.59	−2.22	0.10	
Sexual orientation	0.12	1.11	0.54	<b>0.06</b>	<b>2.17</b>	
Gender	0.12	2.26	1.28	−0.24	4.76	
Education	0.04	0.40	0.60	−0.77	1.57	
Employment	−0.11	−1.15	0.70	−2.51	0.22	
<b>Outcome: Depressive symptoms</b>						0.24
Severity of most difficult job loss	0.10	0.28	0.19	−0.08	0.65	
Optimism	−0.41	−2.34	0.31	− <b>2.95</b>	− <b>1.72</b>	
Severity of most difficult job loss × optimism	0.01	0.02	0.22	−0.42	0.46	
Black	−0.04	−0.46	0.61	−1.65	0.74	
Biracial Black–Latinx	−0.11	−1.28	0.65	− <b>2.56</b>	− <b>0.01</b>	
Sexual orientation	0.18	1.95	0.68	<b>0.61</b>	<b>3.28</b>	
Gender	0.05	1.01	1.08	−1.10	3.12	
Education	0.03	0.36	0.62	−0.86	1.57	
Employment	−0.04	−0.44	0.69	−1.79	0.92	
<b>Outcome: Somatic symptoms</b>						0.10
Severity of most difficult job loss	0.01	0.20	0.13	−0.06	0.45	
Optimism	−0.23	−0.89	0.20	− <b>1.29</b>	− <b>0.49</b>	
Severity of most difficult job loss × optimism	−0.08	−0.19	0.14	−0.46	0.08	
Black	−0.03	−0.21	0.53	−1.24	0.82	
Biracial Black–Latinx	−0.08	−0.63	0.44	−1.49	0.24	
Sexual orientation	0.08	0.61	0.45	−0.27	1.50	
Gender	0.00	−0.03	0.87	−1.73	1.67	
Education	0.07	0.53	0.45	−0.34	1.41	
Employment	−0.17	−1.41	0.58	− <b>2.56</b>	− <b>0.27</b>	
<b>Fit indexes</b>	$\chi^2=2.75, df=3, p=.433$ ; CFI=1.00; RMSEA=.000; SRMR=.011					
<b>Model 2b. Chronic financial lifetime stressor severity</b>						
<b>Outcome: Anxious symptoms</b>						0.17
Severity of financial stressors	0.19	0.39	0.12	<b>0.16</b>	<b>0.62</b>	
Optimism	−0.25	−1.29	0.28	− <b>1.83</b>	− <b>0.75</b>	
Severity of financial stressors × optimism	−0.02	−0.05	0.14	−0.32	0.23	
Black	−0.04	−0.40	0.58	−1.53	0.74	
Biracial Black–Latinx	−0.11	−1.10	0.58	−2.23	0.03	
Sexual orientation	0.12	1.11	0.55	<b>0.04</b>	<b>2.18</b>	
Gender	0.13	2.35	1.29	−0.18	4.88	
Education	0.04	0.43	0.58	−0.71	1.56	
Employment	−0.12	−1.25	0.67	−2.56	0.07	
<b>Outcome: Depressive symptoms</b>						0.24
Severity of financial stressors	0.16	0.36	0.12	<b>0.12</b>	<b>0.60</b>	
Optimism	−0.37	−2.08	0.31	− <b>2.69</b>	− <b>1.46</b>	
Severity of financial stressors × optimism	−0.11	−0.30	0.14	− <b>0.56</b>	− <b>0.03</b>	
Black	−0.03	−0.37	0.60	−1.55	0.81	
Biracial Black–Latinx	−0.11	−1.31	0.62	− <b>2.52</b>	− <b>0.10</b>	

**Table 4** (continued)

	$\beta$	$b$	$SE$	LCI	UCI	$R^2$	
Sexual orientation	0.19	2.04	0.70	<b>0.68</b>	<b>3.41</b>	0.10	
Gender	0.06	1.25	1.06	−0.83	3.32		
Education	0.04	0.43	0.60	−0.75	1.61		
Employment	−0.05	−0.53	0.65	−1.81	0.75		
<i>Outcome: Somatic symptoms</i>							
Severity of financial stressors	0.14	0.23	0.10	<b>0.04</b>	<b>0.42</b>		
Optimism	−0.19	−0.75	0.22	<b>−1.18</b>	<b>−0.31</b>		
Severity of financial stressors × optimism	−0.04	−0.08	0.10	−0.28	0.13		
Black	−0.03	−0.25	0.54	−1.31	0.82		
Biracial Black–Latinx	−0.07	−0.60	0.42	−1.42	0.23		
Sexual orientation	0.08	0.59	0.46	−0.32	1.50	0.16	
Gender	0.00	0.05	0.8	−1.52	1.62		
Education	0.07	0.57	0.44	−0.30	1.45		
Employment	−0.18	−1.45	0.57	<b>−2.57</b>	<b>−0.32</b>		
<b>Fit indexes</b>	$\chi^2=9.47, df=3, p=.010$ ; CFI=.988; RMSEA=.115; SRMR=.024						
<b>Model 2c. Total financial lifetime stressor severity</b>							
<i>Outcome: Anxious symptoms</i>							
Total financial lifetime stressor severity	0.14	1.22	0.46	<b>0.32</b>	<b>2.11</b>		
Optimism	−0.27	−1.37	0.28	<b>−1.92</b>	<b>−0.83</b>		
Total financial lifetime stressor severity × optimism	−0.03	−0.33	0.54	−1.38	0.71		
Black	−0.03	−0.35	0.58	−1.49	0.79		
Biracial Black–Latinx	−0.11	−1.10	0.58	−2.24	0.03		
Sexual orientation	0.12	1.17	0.56	<b>0.08</b>	<b>2.26</b>	0.24	
Gender	0.12	2.32	1.30	−0.23	4.86		
Education	0.04	0.38	0.59	−0.77	1.54		
Employment	−0.12	−1.25	0.68	−2.59	0.09		
<i>Outcome: Depressive symptoms</i>							
Total financial lifetime stressor severity	0.15	1.42	0.48	<b>0.47</b>	<b>2.37</b>		
Optimism	−0.38	−2.15	0.30	<b>−2.74</b>	<b>−1.57</b>		
Total financial lifetime stressor severity × optimism	−0.12	−1.47	0.59	<b>−2.63</b>	<b>−0.31</b>		
Black	−0.03	−0.36	0.60	−1.54	0.82		
Biracial Black–Latinx	−0.12	−1.35	0.62	<b>−2.58</b>	<b>−0.13</b>		
Sexual orientation	0.20	2.09	0.70	<b>0.72</b>	<b>3.46</b>	0.10	
Gender	0.06	1.29	1.07	−0.81	3.38		
Education	0.04	0.40	0.60	−0.77	1.58		
Employment	−0.05	−0.55	0.66	−1.84	0.74		
<i>Outcome: Somatic symptoms</i>							
Total financial lifetime stressor severity	0.14	0.93	0.40	<b>0.15</b>	<b>1.71</b>		
Optimism	−0.20	−0.79	0.22	<b>−1.22</b>	<b>−0.36</b>		
Total financial lifetime stressor severity × optimism	−0.05	−0.41	0.42	−1.24	0.42		
Black	−0.03	−0.23	0.54	−1.29	0.82		
Biracial Black–Latinx	−0.08	−0.61	0.42	−1.43	0.21		
Sexual orientation	0.08	0.62	0.46	−0.29	1.53	0.19	
Gender	0.00	0.04	0.82	−1.55	1.64		
Education	0.07	0.55	0.45	−0.34	1.43		
Employment	−0.18	−1.47	0.58	<b>−2.60</b>	<b>−0.33</b>		
<b>Fit indexes</b>	$\chi^2=7.25, df=3, p=.064$ ; CFI=.993; RMSEA=.070; SRMR=.019						

$\beta$  standardized beta coefficients,  $b$  unstandardized beta coefficients,  $SE$  standard error,  $LCI$  95% lower confidence interval,  $UCI$  95% upper confidence interval. Significant CIs are presented in bold font



**Fig. 1** Associations between chronic financial stressors and depressive and somatic symptoms as a function of optimism. **A** Optimism moderated the effect of chronic financial lifetime stressor count on somatic symptoms. **B** Optimism moderated the effect of total finan-

cial lifetime stressor count on somatic symptoms. **C** Optimism moderated the effect of chronic financial lifetime stressor severity on depressive symptoms. **D** Optimism moderated the effect of total financial lifetime stressor severity on depressive symptoms

stressful or threatening—was not associated with any outcomes. Like the other models, optimism was negatively associated with each mental health outcome. However, there were no moderation effects.

### Chronic Financial Stressor Severity

Consistent with our hypotheses, experiencing greater severity of chronic financial stressors as an adult was associated with reporting more anxious, depressive, or somatic

symptoms. Optimism was also negatively associated with each outcome. Moreover, the effect of chronic financial stressor severity on depressive symptoms was moderated by optimism (Fig. 1C). Specifically, the effect of financial stressor severity on depressive symptoms was significant, but only for participants who reported lower ( $-1$  SD) optimism ( $b = 0.61$ , 95% CI [0.25, 0.96]). Chronic financial strain severity was not related to depressive symptoms for participants reporting higher ( $+1$  SD) optimism ( $b = 0.12$ , 95% CI [ $-0.17$ , 0.41]). There were no other significant moderation effects.

### Total Financial Lifetime Stressor Severity

Finally, we examined total lifetime stressor severity as the main predictor. As hypothesized, experiencing greater financial stressor severity during the life course was associated with higher anxious, depressive, and somatic symptoms. Optimism was negatively associated with each mental health symptom. Moreover, the effect of total financial lifetime stressor severity on depressive symptoms was moderated by optimism (see Fig. 1D). Specifically, the effect of total financial lifetime stressor severity on depressive symptoms was significant, but only for participants who reported lower ( $-1$  SD) optimism ( $b = 2.63$ , 95% CIs [1.04, 4.22]). In contrast, total financial lifetime stressor severity was not associated with depressive symptoms for participants who reported higher ( $+1$  SD) optimism ( $b = 0.22$ , 95% CI [ $-0.83$ , 1.26]). There were no other significant moderation effects.

## Discussion

The present study advances research on stress and mental health by examining for the first time how lifetime exposure to two key financial stressors—namely, loss of the primary breadwinner's job (acute financial stressor) and experiencing significant financial strain as an adult (chronic financial stressor)—are related to anxious, depressive, and somatic symptoms among RSGM emerging adults. We also examined the extent to which optimism moderated these effects while accounting for race, ethnicity, gender, sexual orientation, and current education and employment status. Results indicated that acute, chronic, and the total number of financial stressor experiences along with the severity of financial strain in adulthood were differentially related to mental health among RSGM in our sample. These main effects specifically showed that RSGM who experienced more acute financial stressors reported more anxious, depressive, and somatic symptoms, whereas total financial stressors were only associated with somatic symptoms. Moreover, RSGM who reported more chronic and total financial stressor severity exhibited heightened anxious, depressive, and somatic symptoms. Together,

these findings corroborate existing research showing that vulnerable populations who experience repeated job loss [77] or precarious employment [78], as well as experiences of severe financial burden [2, 4] during long periods, are more likely to develop and sustain worse mental health problems. Moreover, these findings further the existing literature by showing how varying patterns of lifetime financial stressor exposure differentially predict to specific mental health symptoms at the intersections of race, ethnicity, sexual orientation and gender minoritized social group status.

As hypothesized, participants who self-reported more optimism also exhibited fewer mental health symptoms. This is consistent with resilience theoretical perspectives [27–30] and prior empirical findings suggesting that optimism is an important individual-level psychological resource associated with better mental health outcomes in the context of severe adversity [40, 42, 47, 50], including lifetime exposure to financial stressors. Moreover, the severity of chronic financial stressor exposure in adulthood was the only index of financial stressors significantly negatively related to optimism at the bivariate level. This suggests that greater severity of financial stressor exposure as an emerging adult was linked to lower optimism or that lower severity of financial strain was associated with greater optimism. These findings advance our knowledge of how lifetime financial stressors are linked to optimism by indicating that the severity of chronic financial strain is important to understanding the link between lifetime financial stressors and psychological resilience at the individual level.

Results from our moderation analyses support optimism as a potentially important intrapersonal resilience factor for reducing the effects of financial stressors on mental health outcomes, further supporting resilience theoretical frameworks and past research [40, 41]. As hypothesized, RSGM emerging adults experiencing more chronic and total financial stressors and who reported lower optimism exhibited more somatic symptoms. Similarly, participants who reported more chronic and total financial stressor severity and lower optimism evidenced greater depressive symptoms. Across these moderation results, the association among these financial stressor exposures and their severity were unrelated to mental health symptoms among participants who reported high optimism, indicating that optimism may lessen the effects of chronic and total financial stressor count and severity on depressive and somatic symptoms in their respective associations. This study replicates findings by Taylor et al. [52, 53], that optimism protects against psychological distress related to financial stress among Black and Latinx women, which extend to RSGM emerging adults, whose optimism attenuated lifetime financial stressor's effects differently across multiple mental health symptoms.

However, results were not significant for all interaction models. For example, the interactions between acute financial stressor count and optimism and between acute financial

stressor severity and optimism were not significant for any outcome. Further, the respective interactions between chronic and total financial stressor counts with optimism were related to somatic symptoms but not associated with anxious or depressive symptoms, whereas chronic and total financial stressor severity and optimism interacted to predict depressive but not anxious and somatic symptoms. Therefore, optimism may only protect against the effects of whether RSGM emerging adults experienced more chronic and total financial stressor counts on somatic symptoms and more chronic and total financial stressor severity on depressive symptoms.

The interaction between greater chronic and total financial stressor counts with optimism only being related to somatic symptoms—regardless of severity—may indicate that optimism can protect against physical symptoms of stress and potentially long-term alterations of physiological stress systems, whereas it may not affect depressive and anxious symptoms. This finding corroborates past research evidencing the health-enhancing benefits of optimism linked to lower systemic inflammation [40, 43] and in reducing risk for inflammation-related cardiovascular disease among Black adolescents [79] and in adult clinical samples [80]. Conversely, the interaction between more financial stressor severity and optimism only being related to depressive symptoms may reflect that financial strain severity is linked more strongly to depression than other mental health conditions [81]. Overall, these findings corroborate theoretical premises and empirical research linking varying patterns of lifetime financial stressor exposure to mental health disparities [2–4, 7–9]. These findings also build on Díaz and colleagues' [58] and Parra and colleagues' [46] work showing that pervasive financial hardship predicted elevated psychological distress among RSGM by identifying optimism a plausible psychological resource that could mitigate experiences of frequent and severe lifetime financial stressors to reduce mental health symptoms among this population.

In addition, these reported moderation effects highlight optimism as a potentially important psychological target for clinical interventions. With regard to mental health, teaching people who are financially strained and living with depression to approach setbacks as manageable challenges and to think positively about the future using mental imagery therapeutic interventions has been linked to increased and sustained optimism over time [47]. The benefits of maintaining high optimism are associated with greater career success and goal-directed behaviors [41], staying in college [82], earning higher wages after obtaining a graduate degree [83], including lower incidence of depressive symptoms over time [49], and faster recovery from depression [84]. As Taylor and colleagues [52, 53] and this study demonstrate, optimism can lessen the deleterious effects of chronic and severe financial stressors on mental health. Moreover, these results align with radical notions of healing and resistance proposed in

“queer futurity” [65] and Black boys and young men’s “comprehensive mattering” [66]. Both queer futurity and comprehensive mattering describe how queer people and Black boys and young men can imagine a possible better future despite dominant narratives of death, struggle, and worthlessness tied to systemic heterosexism and racism. Through these philosophies and approaches, envisioning a better future is seen as healing and could be applied to understand how hope and optimism might be part of reimagining the possibility for stronger socioeconomic positioning and resistance to structural stressors manifesting in financial stress, as we demonstrated with the findings of the current study.

The therapeutic effects of optimism have been shown to improve physical and mental health, and these effects are theorized to be context-dependent and only sustainable when optimism helps people cope with temporary and manageable stressors [40]. Even though optimism is associated with fewer depressive symptoms [54], better psychosocial adjustment, and greater life satisfaction over time among SGM persons [55, 85], optimism is not a long-term solution for alleviating mental health disparities related to lifetime exposure to financial stressors among RSGM emerging adults across the US. Therefore, aside from teaching RSGM emerging adults how to draw from their individual-level resilience psychological resources to cope with the economic structural and social determinants of their well-being, future research needs to focus on multidimensional resilience frameworks [27–30] that encompass relational, sociocultural, and ecological resources to alleviate the effects of financial stressor exposure. For example, access to supportive relationships who can financially assist during severe economic hardship [86], access to RSGM communities to engage in resource sharing [87], and access to employment/career opportunities within their communities [88] are viable relational and ecological resilience resources that could mitigate the pervasive effects of lifetime financial stressor exposure.

Yet, to directly reduce a fundamental source of mental health disparities among RSGM, a greater focus is needed on dismantling oppressive structural and social systems [6, 19, 60] that place people with multiple minoritized identities in socioeconomically disadvantaged and stressful positions and at higher risk for developing severe mental and physical health problems across their life span. As summarized above, the financial well-being and livelihood of racially, sexually, and gender minoritized populations are severely and pervasively undermined systematically, institutionally, and interpersonally through various forms of oppression such as racism and heterosexism [10–21, 89]. Socioeconomic interventions that create and secure jobs with equitable pay, eliminate discrimination during the hiring process, protect workers from workplace discrimination, and alleviate mental health disparities are necessary, need to be prioritized, and must be upheld to equalize the socioeconomic landscape

to promote the physical and mental well-being of multiply minoritized people [19, 88–90].

## Strengths and Limitations

This study has several strengths that are worth noting. First, we focused the experiences of lifetime financial stressor exposure and its effects on mental health among RSGM emerging adults who experience substantial stress burden and mental health problems but are rarely included in the lifetime stress and optimism literature. Moreover, the present findings point to optimism as a key individual-level resilience process that may be targeted in prevention and intervention efforts to minimize the negative effects of financial stressor exposure on mental health problems, particularly when financial stressors are chronic or severe.

There are also several limitations. First, these data were cross-sectional and specific to a population of racially, sexually, and gender minoritized emerging adults in Los Angeles County, California, which prevents claims of directionality and causality, and limits generalizability. Specifically, our reliance on this convenience sample underscores this group of emerging adults is not representative of other RSGM populations, and that these findings and their generalizability should be interpreted with caution. National prospective studies are needed to better understand how exposure to financial stressors that occurs across the lifespan and changes in optimism have lasting effects on mental and physical health over time, and to determine whether these associations vary by geographical location [35, 47, 51]. Moreover, the current study focused on an emerging adult sample and these results cannot be generalized to other life stages. Emerging adulthood (ages 18–29) [91–93] is a developmental life stage characterized by identity exploration and formation, individuation and self-reliance, and pursuit of more education to secure employment and career opportunities. Yet, not all emerging adults are always employed full-time [94] and this life stage is also associated with the onset of mood disorders [95, 96]. Although the present study shows that financial strain affects mental health, mental health conditions can also affect financial stability, including a person's ability to keep a job and manage their expenses [97, 98], these data did not enable us to assess a cyclical link between mental health and financial stressors [81, 99].

In addition, this study only assessed certain financial stressors, and it is possible that this assessment strategy could have limited our ability to investigate more nuanced financial stressors. Future research should include a wider variety of financial stressors to verify and understand better the patterns observed here. In addition, participants who identified as non-cisgender and bisexual, pansexual, queer, or another sexual orientation were underrepresented, and

women (including lesbian women) were not included. This lack of representation prevents a further understanding of the known high risk of mental health problems among non-cisgender [100], plurisexual, and lesbian [101, 102] women in relation to lifetime financial stressor exposure and optimism. Future studies could benefit substantially from using stratified sampling recruitment efforts to understand and address socioeconomic and health disparities within RSGM.

Notwithstanding these limitations, the present results are among the first to demonstrate that financial stressor exposure and severity are strongly related to anxious, depressive, and somatic symptoms among RSGM. Moreover, these data demonstrate that optimism, a potentially modifiable neurocognitive process, can mitigate the negative effects of financial stressor experience and severity on depressive and somatic symptoms in this group of emerging adults with multiple stigmatized identities. Future research is needed to replicate and extend these results and to investigate whether interventions designed to enhance optimism have beneficial effects on mental or physical health.

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**Data Availability** The data used in the current study are available upon request.

## Declarations

**Ethics Approval and Consent to Participate** The work was approved by the Institutional Review Board at Children's Hospital Los Angeles, and participants provided written informed consent prior to beginning the study.

**Conflict of Interest** The authors declared no potential conflicts of interest with respect to the research, authorship, or publication of this article.

## References

- Gémes K, Ahnve S, Janszky I. Inflammation a possible link between economical stress and coronary heart disease. *Eur J Epidemiol*. 2008;23(2):95–103. <https://doi.org/10.1007/s10654-007-9201-7>.
- Hassan NM, Kassim ES, Said YMU. Financial wellbeing and mental health: a systematic review. *Stud Appl Econ*. 2021;39(4). <https://doi.org/10.25115/eea.v39i4.4590>.
- Kahn JR, Pearlin LI. Financial strain over the life course and health among older adults. *J Health Soc Behav*. 2006;47(1):17–31. <https://doi.org/10.1177/002214650604700102>.
- Kiely KM, Leach LS, Olesen SC, Butterworth P. How financial hardship is associated with the onset of mental health problems over time. *Soc Psychiatry Psychiatr Epidemiol*. 2015;50(6):909–18. <https://doi.org/10.1007/s00127-015-1027-0>.
- Sturgeon JA, Arewasikporn A, Okun MA, Davis MC, Ong AD, Zautra AJ. The psychosocial context of financial stress: implications for inflammation and psychological health. *Psychosom Med*. 2016;78(2):134–43 [Online]. Available: [https://journals.lww.com/psychosomaticmedicine/fulltext/2016/02000/the\\_psychosocial\\_context\\_of\\_financial\\_stress\\_.3.aspx](https://journals.lww.com/psychosomaticmedicine/fulltext/2016/02000/the_psychosocial_context_of_financial_stress_.3.aspx)
- Cyrus K. Multiple minorities as multiply marginalized: Applying the minority stress theory to LGBTQ people of color. *J Gay Lesbian Ment Health*. 2017;21(3):194–202. <https://doi.org/10.1080/19359705.2017.1320739>.
- Khullar D, Chokshi DA. Health, income, & poverty: Where we are & what could help. *Health Aff (Millwood)*. 2018;10. <https://doi.org/10.1377/hpb20180817.901935>.
- Link BG, Phelan J. Social conditions as fundamental causes of disease. *J Health Soc Behav*. 1995;80–94. <https://doi.org/10.2307/2626958>.
- Ribeiro WS, et al. Income inequality and mental illness-related morbidity and resilience: a systematic review and meta-analysis. *Lancet Psychiatry*. 2017;4(7):554–62. [https://doi.org/10.1016/S2215-0366\(17\)30159-1](https://doi.org/10.1016/S2215-0366(17)30159-1).
- Albelda R, Badgett ML, Schneebaum A, Gates G. Poverty in the lesbian, gay, and bisexual community. Los Angeles: The Williams Institute, University of California, Los Angeles (UCLA) School of Law; 2009.
- Baker RS, Brady D, Parolin Z, Williams DT. The enduring significance of ethno-racial inequalities in poverty in the US, 1993–2017. *Popul Res Policy Rev*. 2021:1–35. <https://doi-org.libproxy.wustl.edu/10.1007/s11113-021-09679-y>
- Gradín C. Poverty among minorities in the United States: Explaining the racial poverty gap for Blacks and Latinos. *Appl Econ*. 2012;44(29):3793–804. <https://doi-org.libproxy.wustl.edu/10.1080/00036846.2011.581219>
- Ecker J, Aubry T, Sylvestre J. A review of the literature on LGBTQ adults who experience homelessness. *J Homosex*. 2019;66(3):297–323. <https://doi.org/10.1080/00918369.2017.1413277>.
- Gibb JK, Shokoohi M, Salway T, Ross LE. Sexual orientation-based disparities in food security among adults in the United States: results from the 2003–2016 NHANES. *Am J Clin Nutr*. 2021;114(6):2006–16. <https://doi.org/10.1093/ajcn/nqab290>.
- Kushel MB, Gupta R, Gee L, Haas JS. Housing instability and food insecurity as barriers to health care among low-income Americans. *J Gen Intern Med*. 2006;21(1):71–7. <https://doi-org.libproxy.wustl.edu/10.1111/j.1525-1497.2005.00278.x>
- VanKim NA. Sexual minority status: An overlooked stigma that affects food insecurity. *Am J Clin Nutr*. 2021;114(6):1890–1. <https://doi.org/10.1093/ajcn/nqab333>.
- Chetty R, Hendren N, Jones MR, Porter SR. Race and economic opportunity in the United States: an intergenerational perspective. *Q. J. Econ*. 2020;135(2):711–83. <https://doi.org/10.1093/qje/qjz042>.
- Fisher T. The impact of policy on the economic opportunities and well-being of the LGBT community. *Inq Soc Policy*. 2010;1:112–25.
- Hastings PD, Guyer AE, Parra LA. Conceptualizing the influence of social and structural determinants of neurobiology and mental health: Why and how biological psychiatry can do better at addressing the consequences of inequity. *Biol Psychiatry Cogn Neurosci Neuroimaging*. 2022. <https://doi.org/10.1016/j.bpsc.2022.06.004>.
- Henderson ER, Goldbach JT, Blosnich JR. Social determinants of sexual and gender minority mental health. *Curr Treat Options Psychiatry*. 2022;9(3):229–45. <https://doi.org/10.1007/s40501-022-00269-z>.
- Wilson BD, Gomez A-G, Sadat M, Choi SK, Badgett M. Pathways into poverty: lived experiences among LGBTQ people; 2020 [Online]. Available: <https://escholarship.org/uc/item/3bp6b7dp>
- Carter RT, Lau MY, Johnson V, Kirkinis K. Racial discrimination and health outcomes among racial/ethnic minorities: a meta-analytic review. *J Multicult Couns Dev*. 2017;45(4):232–59. <https://doi.org/10.1002/jmcd.12076>.
- Paradies Y, et al. Racism as a determinant of health: a systematic review and meta-analysis. *PloS One*. 2015;10(9):e0138511. <https://doi.org/10.1371/journal.pone.0138511>.
- Hatzenbuehler ML, Pachankis JE. Stigma and minority stress as social determinants of health among lesbian, gay, bisexual, and transgender youth: research evidence and clinical implications. *Pediatr Clin North Am*. 2016;63(6):985–97. <https://doi.org/10.1016/j.pcl.2016.07.003>.
- Lick DJ, Durso LE, Johnson KL. Minority stress and physical health among sexual minorities. *Perspect Psychol Sci*. 2013;8(5):521–48. <https://doi.org/10.1177/1745691613497965>.
- Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol Bull*. 2003;129(5):674–97. <https://doi.org/10.1037/0033-2909.129.5.674>.
- Luthar SS, Cicchetti D, Becker B. The construct of resilience: a critical evaluation and guidelines for future work. *Child Dev*. 2000;71(3):543–62. <https://doi.org/10.1111/1467-8624.00164>.
- Masten AS. Resilience theory and research on children and families: past, present, and promise. *J Fam Theory Rev*. 2018;10(1):12–31. <https://doi.org/10.1111/jftr.12255>.
- Ungar M. The social ecology of resilience: Addressing contextual and cultural ambiguity of a nascent construct. *Am J Orthopsychiatry*. 2011;81(1):1–17. <https://doi.org/10.1111/j.1939-0025.2010.01067.x>.
- Ungar M, Theron L. Resilience and mental health: how multisystemic processes contribute to positive outcomes. *Lancet Psychiatry*. 2020;7(5):441–8. [https://doi.org/10.1016/S2215-0366\(19\)30434-1](https://doi.org/10.1016/S2215-0366(19)30434-1).
- Sun Y, Lam CB, Chan KKS, Li J-B, Chung KKH. Trait mindfulness moderates the longitudinal association of family financial strain with perceived cognitive difficulties. *Mindfulness*. 2020;11(5):1267–74. <https://doi.org/10.1007/s12671-020-01339-0>.
- Wu J, Li Q, Chi P, Zhao J, Zhao J. Mindfulness and well-being among socioeconomically disadvantaged college students: roles of resilience and perceived discrimination. *Curr Psychol*. 2023;42(6):4772–83. <https://doi.org/10.1007/s12144-021-01796-3>.

33. LeBaron AB, Kelley HH, Hill EJ, Galbraith Q. Finances, religion, and the FAAR model: how religion exacerbates and alleviates financial stress. *Psychol Relig Spiritual*. 2021;13(3):370–80. <https://doi.org/10.1037/re10000294>.
34. Heinonen K, et al. Socioeconomic status in childhood and adulthood: associations with dispositional optimism and pessimism over a 21-year follow-up. *J Pers*. 2006;74(4):1111–26. <https://doi.org/10.1111/j.1467-6494.2006.00404.x>.
35. Lynch JW, Kaplan GA, Shema SJ. Cumulative impact of sustained economic hardship on physical, cognitive, psychological, and social functioning. *N Engl J Med*. 1997;337(26):1889–95. <https://doi.org/10.1056/NEJM199712253372606>.
36. Pitcho S, Heller O, Chun Y, Schwartz-Tayri TM, Grinstein-Weiss M. Optimism in dire times: The buffering role of optimism in the relationship between food insecurity and mental health during the COVID-19 pandemic. *Heliyon*. 2024;10(9):e30385. <https://doi.org/10.1016/j.heliyon.2024.e30385>.
37. Pearlin LI, Menaghan EG, Lieberman MA, Mullan JT. The stress process. *J Health Soc Behav*. 1981;22(4):337–56. <https://doi.org/10.2307/2136676>.
38. Lazarus RS, Folkman S. Stress, appraisal, and coping. New York: Springer; 1984.
39. Alloy LB, Abramson LY, Metalsky GI, Hartlage S. The hopelessness theory of depression: attributional aspects. *Br J Clin Psychol*. 1988;27(1):5–21. <https://doi.org/10.1111/j.2044-8260.1988.tb00749.x>.
40. Carver CS, Scheier MF, Segerstrom SC. Optimism. *Clin Psychol Rev*. 2010;30(7):879–89. <https://doi.org/10.1016/j.cpr.2010.01.006>.
41. Carver CS, Scheier MF. Dispositional optimism. *Trends Cogn Sci*. 2014;18(6):293–9. <https://doi.org/10.1016/j.tics.2014.02.003>.
42. Scheier MF, Carver CS. Optimism, coping, and health: assessment and implications of generalized outcome expectancies. *Health Psychol*. 1985;4(3):219–47. <https://doi.org/10.1037/0278-6133.4.3.219>.
43. Rasmussen HN, Scheier MF, Greenhouse JB. Optimism and physical health: a meta-analytic review. *Ann Behav Med*. 2009;37(3):239–56. <https://doi.org/10.1007/s12160-009-9111-x>.
44. Rincón Uribe FA, Neira Espejo CA, Pedrosa J d S. The role of optimism in adolescent mental health: a systematic review. *J Happiness Stud*. 2022;23(2):815–45. <https://doi.org/10.1007/s10902-021-00425-x>.
45. Uribe FAR, de Oliveira SB, Gouveia Junior A, Pedrosa J d S. Association between the dispositional optimism and depression in young people: a systematic review and meta-analysis. *Psicol Reflex E Crítica*. 2022;34:37.
46. Parra LA, Spahr CM, Goldbach JT, Bray BC, Kipke MD, Slavich GM. Greater lifetime stressor exposure is associated with poorer mental health among sexual minority people of color. *J Clin Psychol*. 2023;79(4):1130–55. <https://doi.org/10.1002/jclp.23463>.
47. Ji JL, Holmes EA, Blackwell SE. Seeing light at the end of the tunnel: positive prospective mental imagery and optimism in depression. *Psychiatry Res*. 2017;247:155–62. <https://doi.org/10.1016/j.psychres.2016.11.025>.
48. Scheier MF, Carver CS. Effects of optimism on psychological and physical well-being: theoretical overview and empirical update. *Cogn Ther Res*. 1992;16(2):201–28. <https://doi.org/10.1007/BF01173489>.
49. Giltay EJ, Zitman FG, Kromhout D. Dispositional optimism and the risk of depressive symptoms during 15 years of follow-up: the Zutphen elderly study. *J Affect Disord*. 2006;91(1):45–52. <https://doi.org/10.1016/j.jad.2005.12.027>.
50. Taylor SE, Stanton AL. Coping resources, coping processes, and mental health. *Annu Rev Clin Psychol*. 2007;3(1):377–401. <https://doi.org/10.1146/annurev.clinpsy.3.022806.091520>.
51. Brody GH, Murry VM, Kim S, Brown AC. Longitudinal pathways to competence and psychological adjustment among African American children living in rural single-parent households. *Child Dev*. 2002;73(5):1505–16. <https://doi.org/10.1111/1467-8624.00486>.
52. Taylor ZE, Larsen-Rife D, Conger RD, Widaman KF, Cutrona CE. Life stress, maternal optimism, and adolescent competence in single mother, African American families. *J Fam Psychol*. 2010;24(4):468. <https://doi.org/10.1037/a0019870>.
53. Taylor ZE, Widaman KF, Robins RW, Jochem R, Early DR, Conger RD. Dispositional optimism: a psychological resource for Mexican-origin mothers experiencing economic stress. *J Fam Psychol*. 2012;26(1):133–9. <https://doi.org/10.1037/a0026755>.
54. Morrison MA. Psychological health correlates of perceived discrimination among Canadian gay men and lesbian women. *Can J Commun Ment Health*. 2012;30(2):81–98. <https://doi.org/10.7870/cjcmh-2011-0018>.
55. Kwon P, Hugelshofer DS. The protective role of hope for lesbian, gay, and bisexual individuals facing a hostile workplace climate. *J Gay Lesbian Ment Health*. 2010;14(1):3–18. <https://doi.org/10.1080/19359700903408914>.
56. Bowleg L. The problem with the phrase women and minorities: intersectionality—an important theoretical framework for public health. *Am J Public Health*. 2012;102(7):1267–73.
57. Cole ER. Intersectionality and research in psychology. *Am Psychol*. 2009;64(3):170.
58. Crenshaw K. Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *U Chi Leg. F*. 1989:139.
59. Else-Quest NM, Hyde JS. Intersectionality in quantitative psychological research: I. Theoretical and epistemological issues. *Psychol Women Q*. 2016;40(2):155–70.
60. Parra LA, Hastings PD. Integrating the neurobiology of minority stress with an intersectionality framework for LGBTQ-Latinx populations. *New Dir Child Adolesc Dev*. 2018;2018(161):91–108. <https://doi.org/10.1002/cad.20244>.
61. Díaz RM, Ayala G, Bein E, Henne J, Martin BV. The impact of homophobia, poverty, and racism on the mental health of gay and bisexual Latino men: Findings from 3 to US cities. *Am J Public Health*. 2001;91(6):927–32. <https://doi.org/10.2105/ajph.91.6.927>.
62. L. E. Durso and G. J. Gates, “Serving our youth: Findings from a national survey of services providers working with lesbian, gay, bisexual and transgender youth who are homeless or at risk of becoming homeless,” 2012.
63. Bostwick WB, Boyd CJ, Hughes TL, West BT, McCabe SE. Discrimination and mental health among lesbian, gay, and bisexual adults in the United States. *Am J Orthopsychiatry*. 2014;84(1):35–45. <https://doi.org/10.1037/h0098851>.
64. O'Donnell S, Meyer IH, Schwartz S. Increased risk of suicide attempts among Black and Latino lesbians, gay men, and bisexuals. *Am J Public Health*. 2011;101(6):1055–9. <https://doi.org/10.2105/AJPH.2010.300032>.
65. Muñoz JE. Cruising Utopia, 10th anniversary edition. In: *The then and there of queer futurity*. New York University Press; 2019. <https://doi.org/10.18574/nyu/9781479868780.001.0001>.
66. Carey RL. Making Black boys and young men matter: radical relationships, future oriented imaginaries and other evolving insights for educational research and practice. *Int J Qual Stud Educ*. 2020;33(7):729–44. <https://doi.org/10.1080/09518398.2020.1753255>.
67. Kipke MD, et al. A focus on the HIV care continuum through the healthy young men's cohort study: protocol for a mixed-methods study. *JMIR Res Protoc*. 2019;8(1):e10738.
68. Slavich GM, Shields GS. Assessing lifetime stress exposure using the Stress and Adversity Inventory for Adults (Adult STRAIN): An overview and initial validation. *Psychosom Med*. 2018;80(1):17–27. <https://doi.org/10.1097/PSY.0000000000000534>.
69. Scheier MF, Carver CS, Bridges MW. Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a

- reevaluation of the Life Orientation Test. *J Pers Soc Psychol*. 1994;67(6):1063–78. <https://doi.org/10.1037/0022-3514.67.6.1063>.
70. Derogatis LR. Brief symptom inventory 18. Johns Hopkins University; 2001.
  71. Ramirez JL, Paz Galupo M. Multiple minority stress: The role of proximal and distal stress on mental health outcomes among lesbian, gay, and bisexual people of color. *J Gay Lesbian Ment Health*. 2019;23(2):145–67. <https://doi.org/10.1080/19359705.2019.1568946>.
  72. McGarrity LA. Socioeconomic status as context for minority stress and health disparities among lesbian, gay, and bisexual individuals. *Psychol Sex Orientat Gend Divers*. 2014;1(4):383–97. <https://doi.org/10.1037/sgd0000067>.
  73. Rosseel Y, Lavaan: an R package for structural equation modeling and more. Version 0.5–12 (BETA). *J Stat Softw*. 2012;48(2):1–36.
  74. R Core Team, R: A language and environment for statistical computing (Version 4.4.1) [Computer software]. R foundation for statistical computing, Vienna; 2019 [Online]. Available: <https://www.R-project.org/>
  75. Hu L, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Struct Equ Model Multidiscip J*. 1999;6(1):1–55. <https://doi.org/10.1080/10705519909540118>.
  76. Little RJA. A test of missing completely at random for multivariate data with missing values. *J Am Stat Assoc*. 1988;83(404):1198–202. <https://doi.org/10.1080/01621459.1988.10478722>.
  77. Gallo WT, Bradley EH, Teng H-M, Kasl SV. The effect of recurrent involuntary job loss on the depressive symptoms of older US workers. *Int Arch Occup Environ Health*. 2006;80(2):109–16. <https://doi.org/10.1007/s00420-006-0108-5>.
  78. Pulford A, et al. Does persistent precarious employment affect health outcomes among working age adults? A systematic review and meta-analysis. *J Epidemiol Community Health*. 2022.
  79. Oreskovic NM, Goodman E. Association of optimism with cardiometabolic risk in adolescents. *J Adolesc Health*. 2013;52(4):407–12. <https://doi.org/10.1016/j.jadohealth.2012.09.011>.
  80. Mohammadi N, et al. The impact of an optimism training intervention on biological measures associated with cardiovascular health: data from a randomized controlled trial. *Psychosom Med* 2020;82(7):634–40 [Online]. Available: [https://journals.lww.com/psychosomaticmedicine/fulltext/2020/09000/the\\_impact\\_of\\_an\\_optimism\\_training\\_intervention\\_on.2.aspx](https://journals.lww.com/psychosomaticmedicine/fulltext/2020/09000/the_impact_of_an_optimism_training_intervention_on.2.aspx)
  81. Richardson T, Elliott P, Roberts R. The relationship between personal unsecured debt and mental and physical health: a systematic review and meta-analysis. *Clin Psychol Rev*. 2013;33(8):1148–62. <https://doi.org/10.1016/j.cpr.2013.08.009>.
  82. Solberg Nes L, Evans DR, Segerstrom SC. Optimism and college retention: mediation by motivation, performance, and adjustment 1. *J Appl Soc Psychol*. 2009;39(8):1887–912. <https://doi.org/10.1111/j.1559-1816.2009.00508.x>.
  83. Segerstrom SC. Optimism and resources: Effects on each other and on health over 10 years. *J Res Personal*. 2007;41(4):772–86. <https://doi.org/10.1016/j.jrp.2006.09.004>.
  84. Kronström K, et al. Optimism and pessimism as predictors of work disability with a diagnosis of depression: a prospective cohort study of onset and recovery. *J Affect Disord*. 2011;130(1–2):294–9. <https://doi.org/10.1016/j.jad.2010.10.003>.
  85. Kwon P. Resilience in lesbian, gay, and bisexual individuals. *Personal Soc Psychol Rev*. 2013;17(4):371–83. <https://doi.org/10.1177/1088868313490248>.
  86. Plasencia MZ. ‘I don’t have much money, but I have a lot of friends’: how poor older Latinxs find social support in peer friendship networks. *Soc Probl*. 2023;70(3):755–72. <https://doi.org/10.1093/socpro/spab081>.
  87. Hudson KD, Romanelli M. ‘We are powerful people’: health-promoting strengths of LGBTQ communities of color. *Qual Health Res*. 2020;30(8):1156–70. <https://doi.org/10.1177/1049732319837572>.
  88. Surfus CR. Challenges and opportunities for the LGBTQ community at the state and local levels. Routledge. 2019. <https://doi.org/10.4324/9781351258807-26>.
  89. Badgett ML. The economic case for LGBT equality: why fair and equal treatment benefits us all. Beacon Press; 2020.
  90. Badgett M, Durso LE, Schneebaum A. New patterns of poverty in the lesbian, gay, and bisexual community; 2013.
  91. Arnett JJ. Conceptions of the transition to adulthood: perspectives from adolescence through midlife. *J Adult Dev*. 2001;8(2):133–43. <https://doi.org/10.1023/A:1026450103225>.
  92. Arnett JJ. Emerging adulthood(s): the cultural psychology of a new life stage. *Bridg Cult Dev Psychol New Synth Theory Res Policy*. 2011;255–75. <https://doi.org/10.1093/acprof:oso/9780195383430.003.0012>.
  93. Arnett JJ, Žukauskienė R, Sugimura K. The new life stage of emerging adulthood at ages 18–29 years: implications for mental health. *Lancet Psychiatry*. 2014;1(7):569–76. [https://doi.org/10.1016/S2215-0366\(14\)00080-7](https://doi.org/10.1016/S2215-0366(14)00080-7).
  94. Wood D, et al. Emerging adulthood as a critical stage in the life course. In: Halfon N, Forrest CB, Lerner RM, Faustman EM, editors. *Handbook of life course health development*. New York: Springer International Publishing; 2018. p. 123–43. [https://doi.org/10.1007/978-3-319-47143-3\\_7](https://doi.org/10.1007/978-3-319-47143-3_7).
  95. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Arch Gen Psychiatry*. 2005;62(6):593–602. <https://doi.org/10.1001/archpsyc.62.6.593>.
  96. Kessler R, et al. Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization’s World Mental Health Survey Initiative. *World Psychiatry*. 2007;6(3):168–76.
  97. McDowell C, Fossey E. Workplace accommodations for people with mental illness: a scoping review. *J Occup Rehabil*. 2015;25(1):197–206. <https://doi.org/10.1007/s10926-014-9512-y>.
  98. Razzano LA, et al. Clinical factors associated with employment among people with severe mental illness: findings from the employment intervention demonstration program. *J Nerv Ment Dis*. 2005;193(11):705–13 [Online]. Available: [https://journals.lww.com/jonmd/Fulltext/2005/11000/Clinical\\_Factors\\_Associated\\_With\\_Employment\\_Among.1.aspx](https://journals.lww.com/jonmd/Fulltext/2005/11000/Clinical_Factors_Associated_With_Employment_Among.1.aspx)
  99. Ryu S, Fan L. The relationship between financial worries and psychological distress among U.S. adults. *J Fam Econ*. 2022. <https://doi.org/10.1007/s10834-022-09820-9>.
  100. Hanna B, Desai R, Parekh T, Guirguis E, Kumar G, Sachdeva R. Psychiatric disorders in the US transgender population. *Ann Epidemiol*. 2019;39:1–7. <https://doi.org/10.1016/j.annepidem.2019.09.009>.
  101. Lehavot K, Simoni JM. The impact of minority stress on mental health and substance use among sexual minority women. *J Consult Clin Psychol*. 2011;79(2):159–70. <https://doi.org/10.1037/a0022839>.
  102. Lewis RJ, Kholodkov T, Derlega VJ. Still stressful after all these years: A review of lesbians’ and bisexual women’s minority stress. *J Lesbian Stud*. 2012;16(1):30–44. <https://doi.org/10.1080/10894160.2011.557641>.

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