Examining Coping Strategies and Mental Health during the COVID-19 Pandemic: Evidence for the Protective Role of Problem-Focused Coping

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Early in the COVID-19 pandemic, studies documented a marked decline in mental health and well-being when compared with prepandemic levels. This study examined how different coping styles were associated with anxiety, depression, and sleep problems among U.S. adults March–April 2020 during the COVID-19 pandemic. Data from 535 U.S. adults across three time points were analyzed using longitudinal multilevel logistic and linear regression modeling. Avoidant-emotional coping was associated with greater odds of experiencing anxiety (OR = 1.65, p < .001). Both avoidant- and active-emotional coping were associated with greater odds of experiencing depression (OR = 1.67, p < .001, and OR = 1.09, p =.022, respectively) and sleep problems (b = 0.05, p < .001, and b = 0.01, p = .005, respectively). Alternatively, problem-focused coping was associated with lower odds of depression (OR = 0.86, p < .001). Results converge with previous evidence suggesting the permiciousness of avoidant-emotional coping during the pandemic, but also underscore that problem-focused coping strategies may represent one important source of resilience for adults to adapt despite such challenges.

KEY WORDS: anxiety; coping; coronavirus; depression; sleep problems

he beginning of the COVID-19 pandemic was marked by urgent concerns for the physical health and safety of the public. While recommendations to stop the spread of the virus were implemented to attenuate a physical health crisis, these emergency conditions also contributed to the development of a collateral mental health crisis (American Psychological Association [APA], 2020). Social distancing and stay-at-home policies to reduce COVID-19 transmission were associated with heightened symptoms of stress, depression, and insomnia (Marroquín et al., 2020), a confluence of issues contributing to the development and maintenance of disturbances in well-being during COVID-19. Additionally, financial insecurity and employment changes related to the pandemic reified feelings of isolation and emotional distress (Ruffolo et al., 2021). By June 2020, nearly four in 10 U.S. adults had reported at least one adverse mental or behavioral health problem (Czeisler et al., 2020).

Despite this, research has pointed to considerable strengths and sources of resiliency during

the pandemic. Recommendations to promote protection against maladaptive psychological outcomes during the pandemic ranged from emotion regulation strategies to behavioral adaptations, such as pursuing hobbies, home tasks, or relaxing activities (Verdolini et al., 2021). These findings underscored that many individuals adapted to the challenging context of COVID-19; furthermore, modifiable person-based factors could be strengthened to minimize the adverse impact of the pandemic on mental health and well-being. Thus, it is important to understand how individuals coped during the COVID-19 pandemic and examine the association of various coping strategies with mental well-being. In this study, we focus on problem-focused, avoidant-emotional, and active-emotional coping strategies and their associations with mental health problems during the COVID-19 pandemic. In identifying effective coping mechanisms, social workers can better serve clients and adapt interventions for adults to strengthen clients' use of adaptive coping strategies that alleviate stress during similar health and mental health crises.

COPING STRATEGIES AND WELL-BEING

Coping has broadly been defined as how individuals respond to stress using a range of cognitive and behavioral strategies. This study makes a distinction across three types of coping, namely, problemfocused coping, avoidant-emotional coping, and active-emotional coping. Problem-focused coping is utilized in contexts where individuals believe they have control over the stressor and, as such, appraise the stressor as changeable. Indeed, problem-focused coping aims to directly address and manage the stressor (e.g., making a plan to improve the situation, asking others for advice; Carver, 1997; Lazarus & Folkman, 1984). Problem-focused coping has been linked with fewer mental health problems, better management of everyday stress, and enhanced global mental health (Chao, 2012; Wong et al., 2016). In this sense, problem-focused coping can enhance self-efficacy, which may be an important source of strength and resilience during challenging situations.

In contrast, styles of emotion-focused coping (i.e., avoidant-emotional and active-emotional coping) are utilized when the stressor is perceived as outside of one's control. These strategies undermine a person's self-efficacy and may reduce their ability to take actions that will help manage the stressful situation. Using emotion-focused coping can delay the confrontation of the stressor and can lead to the maintenance or worsening of the stressful situation (Lazarus & Folkman, 1984). Avoidant-emotional coping involves attempting to evade the problem through, for example, denial, self-distraction, and behavioral disengagement. Individuals delay confrontation of the problem and disengage from efforts that might prove useful in mitigating the stressful experience. Alternatively, active-emotional coping strategies are focused on managing emotions that arise from the stressor through venting, acceptance, and self-blame (Carver, 1997). Instead of taking direct action to change the situation (see problem-focused coping), the individual engages in behaviors that do not directly change or alleviate the stressor.

Studies have consistently found that avoidantemotional coping is linked with poorer health and mental health outcomes. Similarly, the use of activeemotional coping strategies has also been associated with heightened mental health problems (e.g., depression; Cobb et al., 2016). However, activeemotional coping is suggested to have potential benefits in some stressful contexts. For example, some studies suggest that the process of venting about a stressor or accepting the situation can have positive effects on mental health (e.g., reduced anxiety and depression; Crockett et al., 2007). It may be that while engaging in emotionfocused behaviors (e.g., venting) is helpful in the short term, it does little to mitigate the stressful situation. Over time, this may contribute to the persistence of distress in the absence of developing appropriate coping mechanisms. Thus, in general, using emotion-focused coping styles may not be as adaptive or effective as problem-focused coping when responding to stressful situations.

Coping in the Context of COVID-19

Studies on coping strategies and well-being during the COVID-19 pandemic have not provided conclusive evidence indicating that problem-focused coping is more beneficial to well-being relative to emotion-focused coping. For example, one study that compared data collected across the winter of 2019 and spring of 2020 found that using problemfocused or active-emotional coping both had modest positive effects on life satisfaction and positive affect (Zacher & Rudolph, 2021). Alternatively, other cross-sectional studies, such as the one conducted by Mariani and colleagues (2020), have found that active-emotional coping was associated with greater anxiety and depression during COVID-19. Furthermore, other findings indicated that both problem-focused and active-emotional coping were linked with specific mental health benefits (e.g., reduced depression, but not anxiety; El-Monshed et al., 2022). With respect to avoidantemotional coping, several studies show a consistent link with myriad maladaptive mental health outcomes during the pandemic (e.g., negative affect, worries about COVID-19; Dawson & Golijani-Moghaddam, 2020; Zacher & Rudolph, 2021). Thus, mounting evidence demonstrates a link between the use of avoidant-emotional coping strategies and greater disturbances in mental health and well-being during COVID-19.

Purpose of the Present Study

Based on the current literature on coping during COVID-19, it remains unclear how problemfocused, avoidant-emotional, and active-emotional coping strategies may protect against or heighten specific mental health problems in the wake of an uncertain and turbulent global health crisis. It would be beneficial to examine the employment of various coping strategies across multiple time points, particularly during the early and emergent crisis period of the pandemic in the United States. Given widespread concerns for the co-occurring presence of greater mental health and sleep problems (e.g., Hyun et al., 2021), we examine the relationship between the three coping strategies and anxiety, depression, and sleep problems during the initial period of the COVID-19 pandemic in the United States. In line with the general pattern found in previous studies, we hypothesized that problem-focused coping would buffer individuals from anxiety, depression, and sleep problems. In contrast, we hypothesized that avoidant-emotional coping would be associated with greater anxiety, depression, and sleep problems. Analyses related to the relationship between activeemotional coping and mental health were exploratory, due to inconsistent evidence regarding activeemotional coping's potential beneficence in the context of COVID-19.

METHOD

Procedures

Data were collected via online surveys administered through Prolific. The first wave (T1) was launched on March 24, 2020, approximately two weeks after the World Health Organization (WHO, 2020) declared that the coronavirus was a pandemic and one week after the White House issued social distancing guidelines to slow the spread of COVID-19. The second wave (T2) was launched on April 14, 2020, and the third wave (T3) was launched on April 30, 2020.

Eligibility criteria for participants included U.S. nationality and being age 18 or older. All participants provided written informed consent. Prolific sent the survey to all eligible participants, and the survey automatically closed when a predetermined target enrollment number was reached. At T1, it took less than 24 hours for the survey to reach the target enrollment number. At T1, participants received \$6.00 as compensation for their participation and were assigned a non-identifying Prolific ID number that was used to recontact them for the T2 and T3 follow-ups. At T2, we oversampled individuals with low income (i.e., reporting an annual household income of less than \$37,000) to increase the economic diversity of the sample. They received \$6.00 as compensation and were similarly assigned an ID number used to recontact them for the T3 follow-up. To ensure the quality of the data, three attention checks were embedded throughout the survey. For all three time points, none of the participants failed more than one of the attention checks. Because participants were anonymous to the research team, this study was deemed exempt by the institutional review board at the University of Michigan and followed APA ethical standards.

Participants

At T1 555 respondents completed the survey, 654 at T2, and 619 at T3. The analytic sample was restricted to participants who completed dependent variable measures from at least one time point (N = 535). As seen in Table 1, the average age was 35 years. The majority had at least a bachelor's degree (53 percent) and identified as non-Hispanic White (75 percent); 8 percent identified as Black; 9 percent as Hispanic, and 9 percent as other race. The average household income in the prior year was between \$50,000 and \$70,000. Over half the participants (51 percent) were parents of a child under 12 years. Most participants (66 percent) were cohabitating with a romantic partner. At T1, approximately 22 percent of participants indicated they had experienced an employment change due to COVID-19.

Measures

Brief COPE. At T1, coping strategies were measured using the 28-item Brief COPE (Carver, 1997), a valid diagnostic tool that measures coping behaviors (i.e., active coping, use of informational support, positive reframing, planning, emotional support, venting, humor, acceptance, religion, self-blame, self-distraction, denial, substance use, and behavioral disengagement). We modified the COPE using an introductory sentence that asked respondents to think about the ways in which they had been coping with stress since the COVID-19 pandemic. The COPE has three subscales (Dias et al., 2012) that characterize specific coping strategies into three domains of coping: problemfocused coping (e.g., "I've been taking action to try to make the situation better"), avoidantemotional coping (e.g., "I've been saying to myself 'this isn't real'"), and active-emotional coping (e.g., "I've been saying things to let my unpleasant

Table 1: Sample Descriptive Statistics (N = 535)										
	Wave	М	SD	Min	Мах	n	%			
Time-variant variables										
Problem-focused coping	T1	10.28	4.92	0	24					
1.0	T2	9.95	5.09	0	24					
	Т3	9.65	4.97	0	24					
Avoidant-emotional coping	T1	6.87	4.30	0	24					
	Т2	7.24	4.36	0	22					
	Т3	6.77	4.42	0	23					
Active-emotional coping	T1	13.18	5.00	0	28					
	T2	13.43	4.95	0	27					
	Т3	13.25	5.13	0	30					
Lockdown days	T1	5.75	4.87	0	30					
	Т2	21.72	10.25	0	60					
	Т3	35.45	15.31	0	80					
Social distancing days	T1	10.06	5.28	0	30					
	T2	27.47	8.96	0	60					
	Т3	42.58	12.36	0	80					
Income	T1	4.54	2.07	1	7					
	T2	4.54	2.06	1	7					
	Т3	4.65	2.03	1	7					
Cohabitating	T1					322	64.92			
	T2					265	65.92			
	Т3					264	67.87			
Time-invariant variables										
Age (years)		35.17	10.93	18	76					
Race										
White						400	74.77			
Black						43	8.04			
Hispanic						46	8.60			
Other						46	8.60			
Parent of child < 12 years						275	51.40			
Education										
High school or less						64	11.96			
Some college						190	35.51			
Bachelor's or higher						281	52.52			

Note: Household income was measured with the following categories: 1 = \$10,000-\$20,000, 2 = \$20,000-\$30,000, 3 = \$30,000-40,000, 4 = \$40,000-\$50,000, 5 = \$50,000-\$70,000, 6 = \$70,000-\$90,000, 7 = \$90,000 or more.

feelings escape"). Items were rated on a four-point scale, ranging from 0 = I haven't been doing this at all to 3 = I've been doing this a lot. Each subscale was created by averaging items. The internal reliabilities of the problem-focused, avoidant-emotional, and active-emotional coping scales in the current sample were acceptable (Cronbach's alpha = .79, .74, and .74, respectively).

Anxiety. At T1, anxiety was measured with the seven-item Generalized Anxiety Disorder scale (Spitzer

et al., 2006), a valid diagnostic tool to measure anxiety in the general population. Participants were asked, "Over the last two weeks, how often have you been bothered by the following problems?" Sample items include "feeling nervous, anxious, or on-edge," and "having trouble relaxing." Items were rated on a four-point scale, ranging from 0 = not at all to 3 =nearly every day. We created a dichotomous variable to indicate probable moderate or severe anxiety. Scores of nine or less were coded "0," and scores of 10 or above were coded "1" (0 =minimal or mild anxiety, 1 =moderate or severe anxiety).

Depression. At T1, depression was measured using the eight-item Personal Health Questionnaire (PHQ-8; Kroenke et al., 2009), a valid diagnostic tool that measures severity of depressive disorders in the general population. Participants were asked, "Over the last two weeks, how often have you been bothered by any of the following problems?" Sample items included, "Little interest or pleasure in doing things" and "Feeling tired or having little energy." Items were assessed on a four-point scale, ranging from 0 = not at all to 3 =nearly every day. We created a dichotomous variable to reflect whether the participant met criteria for major depression or severe major depression, in which scores of nine or less were coded "0," and scores of 10 or above were coded "1" (0 = not depressed, 1 = probable major depression or severemajor depression).

Sleep Problems. The Pittsburgh Sleep Quality Index (PSQI; Buysse et al., 1989) was administered at all time points. The PSQI is a subjective measure of the quality and patterns of sleep in adults. The scale was slightly modified to measure sleep disruptions specific to COVID-19. We asked about symptoms within the last two weeks, whereas the original PSQI asks about symptoms in the past month. We used a shortened version of the index that included nine items as response options to the question "During the past two weeks, how often have you had trouble sleeping because you ... ": (1) "cannot get to sleep within 30 minutes," (2) "wake up in the middle of the night or early morning," (3) "have to get up to use the bathroom," (4) "cannot breathe comfortably," (5) "cough or snore loudly," (6) "feel too cold," (7) "feel too hot," (8) "have bad dreams," and (9) "have pain." Items were rated on a four-point scale (0 =not during the past two weeks to 3 = three or more times a week). Items were averaged to create a scale with higher scores indicating more sleep problems. The internal reliability of the scale in the current sample was good (Cronbach's alpha = .79).

Sociodemographics. Time-invariant and timevarying controls were included in the model. Timeinvariant controls were measured at T1 and included race, education level, parental status, age, and sex. Race was modeled as a series of dummy variables (White [comparison], Black, Hispanic, other). Education level was also modeled as a series of dummy variables (high school degree or less [comparison], some college, college degree or higher). Parental status indicated whether the participant was a parent to a child under 12 years old (0 = no, 1 = yes). Age was continuous and measured in years. Sex was dichotomous (0 = male,1 = female). Time-varying controls were measured at all time points and included cohabitation status, employment status change, income, days spent in lockdown, and days spent social distancing. Cohabitation status was dichotomous (0 = noncohabitating, 1 = cohabitating). Employment status was a dichotomous variable indicating whether participants had experienced an employment change due to COVID-19: "Has your employment status changed (e.g., laid off, furloughed) in the last two weeks because of the COVID-19 global health crisis?" (0 = no, 1 = yes). Total household income in the last year before taxes was also treated as continuous, given the large number of categories (1 = \$10,000 - \$20,000 to 7 =\$90,000 or more). Number of days spent in lockdown and the number of days spent social distancing were continuous.

Analysis Plan

Data were analyzed using longitudinal multilevel regression analyses, with time nested within individuals. Utilizing a multilevel modeling framework allowed us to examine the relationships of interest in a longitudinal, as opposed to a crosssectional, framework. The longitudinal analysis allows us to account for inter-individual and intraindividual change across time, which increases the accuracy of our estimated effects. Data were scanned for outliers and multicollinearity, neither of which were found. Very few missing data were found on our dependent variables at T1 (<1 percent). At T2 and T3, missing data ranged from 15.5 percent to 17.6 percent for dependent variables. Analyses with dichotomous dependent variables were conducted using multilevel logistic regression, which provides odds ratio (OR) coefficients. Analyses with continuous dependent variables were conducted using multilevel linear regression analyses, which provided unstandardized regression coefficients (b).

RESULTS

Means and standard deviations for the use of problem-focused, avoidant-emotional, and active-

emotional coping are presented in Table 1. As shown, the employment of all three coping strategies remained relatively stable across the three time points.

Anxiety

Table 2 shows results from multilevel logistic and linear regression models. Problem-focused (OR =1.02, p = .653) and active-emotional (OR = 1.05, p = .203) coping were not significantly associated with anxiety. However, avoidant-emotional coping was positively associated with anxiety, such that avoidant-emotional coping was associated with 65 percent higher odds of experiencing anxiety (OR = 1.65, p < .001). Regarding covariates, experiencing an employment change was associated with a 118 percent increase in the odds of experiencing anxiety (OR = 2.18, p = .046). Having received a bachelor's degree or higher (OR = 0.20, p = .018) and higher income (OR =0.78, p = .021) were associated with lower odds of experiencing anxiety.

Depression

Problem-focused coping was negatively associated with depression, such that people who engaged in problem-focused coping had 14 percent lower odds of experiencing depression (OR = 0.86, p < .001). Alternatively, both active-emotional and avoidant-emotional coping were positively associated with depression, such that people who engaged in active-emotional coping had 9 percent higher odds of experiencing depression (OR =1.09, p = .022), and people who engaged in avoidant-emotional coping had 67 percent higher odds of experiencing depression (OR = 1.67, p < .001). Regarding covariates, older age (OR = 0.96, p = .009), having a bachelor's degree or higher (OR = 0.20, p = .004), and higher income (OR = 0.75, p = .002) were associated with lower odds of experiencing depression.

Sleep Problems

Although problem-focused coping was not significantly associated with sleep problems (b = -0.01,

Table 2: Multilevel Logistic Regression Model Predicting Anxiety, Depression, and Sleep Problems (N = 535)												
	Anxiety			Depression			Sleep Problems					
	OR	SE	р	OR	SE	р	b	SE	p			
Wave	0.52	0.17	.042	0.72	0.21	.267	-0.04	0.02	.075			
Coping strategy												
Problem-focused	1.02	0.04	.653	0.86	0.03	<.001	-0.01	0.00	.118			
Avoidant-emotional	1.65	0.09	<.001	1.67	0.08	<.001	0.05	0.00	.000			
Active-emotional	1.05	0.04	.203	1.09	0.04	.022	0.01	0.00	.005			
Age (years)	0.95	0.02	.014	0.96	0.02	.009	0.00	0.00	.227			
Parent of child < 12 years	1.97	0.87	.121	1.00	0.38	.993	-0.01	0.04	.792			
Employment change	2.18	0.85	.046	1.39	0.48	.347	0.09	0.03	.012			
Education												
Some college	0.33	0.22	.093	0.87	0.48	.808	0.00	0.07	.950			
Bachelor's degree or higher	0.20	0.14	.018	0.20	0.11	.004	-0.20	0.07	.003			
Race												
Black	0.76	0.59	.723	0.61	0.41	.462	-0.06	0.08	.408			
Hispanic	1.03	0.71	.969	1.48	0.90	.517	-0.05	0.07	.514			
Other	0.43	0.32	.250	0.40	0.26	.153	-0.05	0.07	.540			
Cohabitating	1.58	0.69	.293	1.86	0.72	.109	0.02	0.04	.690			
Income	0.78	0.08	.021	0.75	0.07	.002	-0.03	0.01	.002			
Lockdown days	0.99	0.02	.594	1.00	0.02	.880	0.00	0.00	.282			
Social distancing days	1.00	0.02	.959	1.01	0.02	.649	0.00	0.00	.344			

Notes: Wave included three time points: March 24, April 14, and April 30, 2020. Comparison category for educational attainment is a high school degree or less. Comparison category for racial group is White. Bolded values are statistically significant ($\rho < .05$).

p = .118), both active-emotional (b = 0.01, p = .005) and avoidant-emotional (b = 0.05, p < .001) coping were significantly associated with higher levels of sleep problems. Regarding covariates, experiencing an employment change was significantly associated with higher levels of sleep problems (b = 0.09, p = .012), while having a bachelor's degree or higher (b = -0.19, p = .003) and higher income (b = -0.03, p = .002) were associated with lower levels of sleep problems.

DISCUSSION

We examined the relationship between problemfocused, active-emotional, and avoidant-emotional coping and mental health outcomes (i.e., anxiety, depression, and sleep problems) experienced during the first two months after COVID-19 was declared a pandemic in the United States. Overall, we found some evidence in support of the notion that coping strategies influence individuals' risk and resilience to experiencing mental health issues during a global health crisis. First, consistent with our hypotheses, we found that problem-focused coping was associated with decreased odds of experiencing depression during COVID-19. However, we did not find that problem-focused coping provided a similar buffer against anxiety or sleep problems. Indeed, problemfocused coping may provide specific benefits in its capacity to motivate and prompt individuals to make efforts and take actions to address the stress imparted by the COVID-19 pandemic (Zacher & Rudolph, 2021). In this regard, it is not surprising that problemfocused coping strategies may be most valuable in buffering individuals' feelings of hopelessness and sadness during the pandemic. This provides some evidence to suggest that being able to develop problemfocused coping strategies (e.g., positive reframing; Shamblaw et al., 2021) may lend strength and protection to mental health even in the presence of an unpredictable external stressor like the pandemic.

Second, we found evidence to suggest that the use of avoidant-emotional coping strategies during COVID-19 is detrimental to multiple facets of mental health and well-being. Avoidant-emotional coping was associated with heightened risk of experiencing anxiety, depression, and sleep problems during COVID-19. While avoidant-emotional coping strategies like denial and behavioral disengagement have been found to be adaptive in acute distressing circumstances that one has little control over, they do not appear to be effective in chronic circumstances in which one must learn how to adapt to and live with the stressor. This finding is in line with other studies during the COVID-19 pandemic (Dawson & Golijani-Moghaddam, 2020), as well as the broader literature that has continued to point to the perniciousness of using avoidant-emotional coping strategies (Littleton et al., 2007). These results may suggest that during the initial stages of an ongoing global health crisis such as the COVID-19 pandemic, avoidance and disengagement are ineffective coping strategies that may only increase the threat to one's mental health and well-being.

Third, our findings indicate that active-emotional coping strategies do not buffer individuals from experiencing mental health problems during COVID-19 and may even confer risk to well-being. Specifically, we found that while active-emotional coping was not related to anxiety, it was associated with greater odds of experiencing both depression and sleep problems. In contrast to this finding, previous studies, including those conducted in other countries during the COVID-19 pandemic, have some evidence to suggest that active-emotional coping can support positive well-being (Margetić et al., 2021). Considering that approximately half our sample consisted of U.S. caregivers (i.e., parents to young children or cohabiting households), active-emotional coping strategies might have done little to support their ability to address their primary concerns (i.e., keeping their family safe and adjusting to a "new normal"; Lee et al., 2021) and thus may have only exacerbated ongoing stress. This is an important consideration for future research, especially given at least one study (Volk et al., 2021) indicated that having children is directly related to the type of coping strategies used by adults during the pandemic.

These results may suggest that during the initial stages of an ongoing global health crisis such as the COVID-19 pandemic, it is beneficial for one to develop problem-focused strategies to cope (e.g., positive reframing, active coping; Shamblaw et al., 2021). Alternatively, given that the conditions of the pandemic were not immediately alleviated, avoidant-emotional coping strategies may only exacerbate stress under circumstances such as a more long-term crisis. The current study indicates that avoidance and disengagement are ineffective coping strategies during an ongoing, evolving global health crisis, including the use of active-emotional coping strategies.

Implications for Social Work Practice and Research

Social work practitioners can promote well-being during major health and mental health crises like the COVID-19 pandemic by making recommendations and guiding interventions to support clients' coping mechanisms. Few studies extant in the literature have focused on the weeks and months surrounding the declaration of COVID-19 as a global pandemic in which individuals' stress may have been most elevated and mental health practitioners became severely overburdened by worker shortages and the need to support well-being among the general population in a timely manner (Evans et al., 2021). The present findings point to the importance of targeting modifiable personbased factors, like the use of adaptive coping strategies, that can be developed and strengthened to protect mental health and well-being during a pandemic.

Social workers may offer support to individuals by building and bolstering specific cognitivebehavioral resources and supporting psychoeducation to reduce unhelpful coping strategies. Such efforts are predicated on continuing education and training for practitioners that can provide updated, evidence-based guidance for why some coping strategies, including those that may seem to alleviate problems in the short term, may be maladaptive or even harmful over time, depending on the context of the stressor. With this training, practitioners may then seek to solicit client intake information regarding individuals' use of different coping strategies to address stressors and assess whether those coping strategies have been helpful. Based on that assessment, practitioners and programs may implement existing evidence-based psychological interventions to promote individuals' specific use of problem-focused coping strategies during major crises. For example, Halland et al. (2015) found that in a randomized controlled trial, subjects who received mindfulness training improved psychosocial adaptation by increasing individuals' use of problemfocused coping and reducing their use of avoidantemotional coping.

During a period of extended social isolation experienced during the COVID-19 pandemic, another clear takeaway is the need to adapt such interventions to telehealth approaches to increase accessibility and dissemination of evidence-based strategies. For example, therapeutic services have been transitioned into strengths-based telehealth interventions to support psychobehavioral wellbeing and care for emerging client needs during the COVID-19 pandemic (Ross et al., 2022). Such telehealth adaptations may be used to strengthen and prevent the continued negative impact of the COVID-19 pandemic on individuals' mental health and well-being.

Limitations

While the present study provides insight into how problem-focused, avoidant-emotional, and activeemotional coping relate to depression, anxiety, and sleep problems experienced during a global health crisis, there are some noteworthy limitations. First, the present study's findings are presented based on the three subgroupings of coping strategies, which may not adequately capture additional nuances in the relative adaptiveness of specific coping behaviors nested within a particular coping style. Second, our analyses are limited to March and April 2020. This period represents a particularly stressful time in the United States' experience of the COVID-19 pandemic, with heightened social distancing and lockdown mandates. That being said, we do not have the ability to compare our findings with coping and well-being prior to or after the pandemic to discern how specific our findings are to that context, or if they may be more generalizable. In addition, there is evidence that coping mechanisms buffering against threats to well-being early in the pandemic do not persist at later periods (e.g., Lee et al., 2022). Thus, future research should examine whether the findings in the current study regarding the potential benefits of problem-focused coping persist into later periods of the pandemic and beyond. Third, the present study utilized an online survey and self-report data from a sample of mostly White and educated adults. It would be important to examine the generalizability of the current findings to U.S. populations that are racially and socioeconomically diverse, given disproportionate experiences of COVID-19-related stress by race and social status (Rice et al., 2022).

CONCLUSION

The present study examined the relationship between coping strategies and mental health during the first months of the COVID-19 pandemic in the United States. Results of longitudinal multivariate regression analyses indicate that avoidant-emotional coping was associated with greater anxiety. Avoidant-emotional and active-emotional coping were associated with greater depression and sleep problems. Finally, problem-focused coping was associated with less depression. Taken together, these results add to current literature suggesting the perniciousness of avoidant-emotional coping and highlight problem-focused coping as one potential source of resilience for adults to adapt despite the challenges presented by a global health crisis.

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