# Predictors of Mental Health Help-Seeking During COVID-19: Social Support, Emotion Regulation, and Mental Health Symptoms

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## Abstract

*Little is known about factors that contribute to mental health help-seeking during disasters beyond attitudes toward counseling. The COVID-19 (SARS-CoV-2) global pandemic dramatically impacted individuals, families, and communities worldwide. The pandemic led to significant disruptions to family routines, and evidence suggests an increase in instances of mental health symptoms, like depression and anxiety, and poor utilization of mental health services. To better understand psychological factors associated with help-seeking during the COVID-19 pandemic, researchers surveyed respondents (n = 1,533 at time 1) about their mental health and help-seeking using Amazon's MTurk platform. The results indicated that individuals with higher levels of anxiety rate their likelihood of help-seeking as higher and those who do seek psychological help report higher levels of depression. Further, those who began new treatment for behavioral health difficulties during the COVID-19 pandemic reported lower social support and less clarity about how they felt (specifically, emotional clarity when upset). Implications for clinical researchers and public health are discussed.*

**Keywords** Help-seeking · Behavioral health · Mental health · Emotion regulation · Social support

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## Introduction

Depression and anxiety are commonly occurring mental health disorders that can have deleterious impacts on individuals, families, and communities. With lifetime prevalence rates of 17% for depression and 29% for anxiety disorders, they are the most common psychological disorders.[1,2] Despite their prevalence, few seek professional help for anxiety or depression: As many as 70% of individuals with depression or anxiety do not receive any mental health treatment,[3] and evidence indicates concerning patterns of low service engagement during the COVID-19 pandemic.[4,5] It is clear that professional help, including psychotherapy, is useful in reducing the harms associated with depression and anxiety.[6] Barriers to help-seeking can be particularly challenging for individuals experiencing depression and anxiety, especially in times of trauma and mass disaster.

Relatively little is known about factors that contribute to mental health help-seeking in community samples during disasters. Help-seeking research following disasters is often conducted retrospectively among those engaged in counseling services after the event or addresses help-seeking within particular diagnostic categories, such as posttraumatic stress disorder. Identifying patterns of help-seeking behaviors among community members, particularly factors that are related to aspects of the presenting problem itself (e.g., severity of symptoms), is critical. Understanding help-seeking practices is particularly useful in times of disaster, when large groups of individuals are at risk for poor mental health outcomes.[7–9] The present study provides information about predictors of mental health help-seeking during the COVID-19 (SARS-CoV-2) global pandemic in the USA.

## Mental Health Impact of the COVID-19 Pandemic

The COVID-19 (SARS-CoV-2) global pandemic dramatically impacted individuals, families, and communities worldwide. In the USA, the pandemic led to significant disruptions to work, leisure, and family routines.[10–12] In 2020, efforts to stop the spread of COVID-19 in the USA led to stay-at-home orders, school closures, cancellation of activities, widespread quarantine, and disruptions of family routines. The pandemic—and associated disruptions to daily routines—may lead to the development of new psychiatric problems[7,11] or the worsening of existing mental health difficulties.[13]

Longitudinal research suggests that these impacts on mental health may be felt over time and can increase in intensity for some.[14] Evidence from an Italian sample suggests adverse effects on mental health, particularly for those in quarantine.[15] Mental health symptoms experienced following a range of disasters include anxiety and depression.[16–19] Early research on stressors related to the COVID-19 pandemic indicate adverse psychological consequences for individuals and families[10,20,21] including depression, anxiety, and feelings of disconnection and caregiving burden.[13,14,22] Some evidence suggests that mental health impacts of the COVID-19 pandemic might include worsening of existing mental health problems,[13] or the development of new problems,[14] and that strict quarantine restrictions might worsen symptoms.[22,23] These experiences may lead to the increased need to engage professional mental health supports as a valuable resource for mitigating the strains that develop during the pandemic.

The disruptions wrought by COVID-19 meant that people lost familiar and otherwise easy access to their social support networks, including clinical supports like behavioral health services. Throughout the first year of the pandemic, a pattern of disorganized COVID-19 response policies fostered deep uncertainty in whether and for how long people would need to stay physically distant from their support communities to stem the spread of the virus.[11] This ambiguity in the nature and duration of the quarantines and other disruptions to daily life required rapid, and constant, adjustments to the ways in which individuals access their familiar protective resources for adapting to challenging circumstances.[24,25] One of the most deleterious impacts of the disruptions to daily life was the impact

on social support. Quarantine orders limited the movement of individuals and families and resulted in the disruption of typical routines for engaging in social support including clinical services.

### Mental health help-seeking

Help-seeking behavior is impacted by many factors, and barriers to the treatment seeking process have been extensively researched. In this instance, we refer to mental health help-seeking as the process by which one seeks support, input, and treatment from a clinical provider, such as a therapist, doctor, or other health professional. Barriers to help-seeking can be practical, attitudinal, intrapsychic, and/or clinic-related.[26] Typically cited barriers include structural barriers, poor mental health literacy, and stigma associated with mental health disorders.[27] In particular, internalized negative attitudes toward help-seeking can serve as a barrier to treatment seeking.[28]

For members of marginalized groups, perceptions of mental health care providers, including lack of trust in the mental health treatment system and negative past experiences, may influence treatment seeking.[29–31] In addition, concerns about confidentiality[32] can influence help-seeking behaviors. In particular, help-seeking for depression and anxiety has been shown to be related to systematic racism[33] and gender disparities.[34] Some[26] have suggested that many identified barriers to treatment seeking are associated with, or the direct result of, social determinants of health.

Attitudes that question whether depression and anxiety are conditions worthy of medical intervention are common[35–37] and may be exacerbated during times of mass trauma or disaster when distress is widespread and might be perceived as normal and the need for assistance minimized. Despite substantial research on help-seeking in general, relatively little is known about help-seeking behaviors in times of mass trauma.

Trauma exposure, including that related to widespread disasters, is associated with higher rates of anxiety and depression[38–40] but with lower rates of mental health service utilization.[41–43] It is clear that the many changes associated with widespread disasters can trigger anxiety and depression, yet few individuals actively seek professional help following a disaster, and little is known about factors that influence that process.

### Coping with disruption: emotion regulation, social support, and mindfulness

Given the pervasive nature of the pandemic, and the intensity of disruptions to daily life, social scientists have focused tremendous research attention on how people adapt over time, with particular focus on the stresses associated with loss of social support. Regulating stress, including the loneliness associated with a loss of social support and the restrictions in movement associated with quarantine, may be accomplished by drawing on trait-like predispositions to specific ways of regulating emotion (e.g., mindfulness)[44] or on stress-regulating coping strategies.[45] More adaptive emotion regulation skills may include having awareness and clarity regarding one's difficult emotions and access to effective strategies to manage them, including first an awareness of one's emotions as well as the related ability to clearly articulate what those feelings are.

These skills enable a larger set of creative responses to challenges.[46,47] For example, several recent studies indicate that mindfulness is significantly linked to perceptions of social support,[48] underscoring the importance of understanding the interpersonal benefits of mindful emotion regulation. One study of over 150 adults sampled from the community demonstrated significant reductions in loneliness and improvements in perceived social support after participating in a brief mindfulness intervention.[49] Similarly, there is evidence that dispositional mindfulness is associated with a perceived social connection through effective emotion regulation,[50] including those skills needed to attend to emotions with clarity and without self-criticism and then respond using strategies to manage distressing feelings that are flexible rather than rote or impulsive.[51]

While preliminary evidence suggests mindfulness and social support are linked, their potential impact on mental health symptoms during the first 12 months of the COVID-19 pandemic is unclear. Further, there are unanswered pertinent questions about whether and how disruptions in social support, mental health symptoms, and emotion regulation factors are related to subsequent patterns of help-seeking during the pandemic.

### Summary and research questions

It is clear that there are important gaps between mental health needs and treatment seeking, yet the factors influencing help-seeking during disasters and mass trauma remain largely unidentified. In particular, the extent to which mental health symptoms, social support, and emotion regulation contribute to help-seeking behaviors is unknown. To better understand these psychological factors associated with help-seeking during the COVID-19 pandemic, the following research questions were addressed in this exploratory study:

1. Were social support, emotion regulation, mental health symptoms, and demographic factors associated with help-seeking during the COVID-19 pandemic?
2. Were social support, emotion regulation, mental health symptoms, and demographic factors associated with having sought new mental health treatment during the COVID-19 pandemic?

## Methods

### Data collection and cleaning procedures

Study materials were approved by the University of Connecticut IRB (X20-0057). Data were collected through a national, online survey posted through the MTurk online worker platform between April 7 and 14, 2020—during the first 7-day average peak of new COVID-19 cases in the USA[52] and 60 days later. MTurk studies have produced data that is replicable and valid, demonstrating the utility of this platform for psychosocial and health-focused studies.[53] MTurk participants reviewed the study description before following the study-specific link to provide consent and then completed the study's survey (average duration to completion was 20 min).

Participants received a $2 incentive upon completion of the baseline survey and $3 for each follow-up survey. Given the vulnerabilities inherent in crowd-sourced convenience samples,[54] rigorous data management practices were followed to verify the inclusion of unique individual human respondent cases, as opposed to computerized bot responses, and the attentiveness of each response.[55] First, we screened the dataset for duplicate cases and global positioning verification within the USA. Next, responses completed in under 10 min were deleted (< 50% of the pilot estimates for expected survey length). Last, a Captcha attention screener and an attention check item were also included in the 60-day follow-up survey.

### Participants

At baseline, 1,545 English-speaking individuals over the age of 18 who resided in the USA participated (55.6% females, 68.1% White non-Hispanic; mean age = 35.6, $SD = 13.3$ years). Of these, 812 (52.6%) participated in the 60-day follow-up, in line with expected retention rates for longitudinal MTurk studies.

## Measures

In addition to reporting background and demographic characteristics including age, gender, race and ethnic background, financial resources available to meet participant needs, and education level, participants completed the following measures:

### *Predictor: depression, anxiety, and stress symptoms*

Depression, anxiety, and stress were assessed with the Depression Anxiety and Stress Scales 21 (DASS21).[56] The DASS-21 demonstrated good psychometric properties in similar samples to the present study including samples during COVID-19[57] as well as in MTurk samples.[58] The measure has acceptable internal consistency with $\alpha = 0.92$ for depression, 0.89 for anxiety, and 0.90 for stress in the present sample. Example items for these subscales include "I felt life was meaningless," "I felt close to panic," and "I felt I was rather touchy," respectively.

The DASS-21 is not appropriate for clinical diagnoses; however, data from the larger, 42-item scale[59] have led to the development of benchmarks to aid interpretation as follows: depression scores from 10–12 indicate mild, 13–20 indicate moderate, 21–27 indicate severe, and 28 indicate extreme symptom severity. Anxiety scores from 7–9 indicate mild, 10–14 indicate moderate, 15–19 indicate severe, and 20–42 indicate extreme symptom severity. Stress scores from 11–18 indicate mild, 19–26 indicate moderate, 27–34 indicate severe, and 35–42 indicate extreme symptom severity. Scores from the shorter version subscales used in the present study can be multiplied by a factor of 2 to provide a reasonable comparison to these benchmarks.

### *Predictor: emotion regulation*

Participants completed the Difficulties in Emotion Regulation Scale-Short Form (DERS-SF),[60] which assesses the presence of difficulties regulating emotion across 6 subscales (all $\alpha > 0.78$).[60] Higher scores indicate more severe struggles with regulating distress; the current study includes 3 DERS-SF subscales for a total of 9 items, including clarity with 3 items including "I have difficulty making sense out my of feelings"; strategies with 3 items including "When I'm upset, I believe there is nothing I can do to feel better"; and impulse with 3 items including "When I'm upset, I become out of control.".[60]

### *Predictor: social support*

Participants completed the 4-item appraisal support subscale of the Interpersonal Support Evaluation List (ISEL- SF).[61] These items measure respondents' perceptions that there is someone available with whom they can discuss personal issues, such that higher scores indicated greater perceived availability of social support. The ISEL-SF has demonstrated adequate internal consistency, reported at $\alpha = 0.83$.[62] The appraisal subscale also has acceptable internal consistency in the current sample with $\alpha = 0.86$. An example item from this subscale includes "There are several people that I trust to help solve my problems."

### *Predictor: mindfulness*

Participants completed the 12-item Cognitive and Affective Mindfulness Scale-Revised (CAMS-R),[63] which captures trait mindfulness and is designed to be free of idiomatic language, suitable for use in non-meditating samples. Higher scores indicate more mindfulness. The measure has acceptable reported internal consistency ($\alpha > 0.74$) and convergent and discriminant validity.[63] The

CAMS-R demonstrated acceptable internal consistency in the current sample with $\alpha = 0.88$. An example item from the scale includes "I am preoccupied by the past."

### *Dependent variable: single-item help-seeking indicators*

Our outcomes measures on help-seeking from the 60-day follow-up included three single-item indicators: "Have you sought counseling or other professional mental health during the COVID-19 pandemic?" and "Did you seek new supports or were you already receiving these services when the COVID-19 pandemic started?". Propensity to seek psychological help was a single item, worded "How likely are you personally to seek professional help to manage stress or anxiety during COVID-19?". Respondents rated this item on a 100-point slider.

## Results

Overall, researchers sought to determine which factors were associated with help-seeking generally and which factors were associated with having sought new help. To do so, a series of binary logistic and linear regressions were conducted using SPSS 27. Three separate regression equations were built, one for each of the three single item help-seeking indicators (noted in the section above) reflecting having sought help, having sought new help during the pandemic beyond services previously underway, and propensity to seek help. In total, 77 individuals (5.0% of the total sample) reported seeking help, while 23 (1.5% of the total sample) reported pursuing new supports since the pandemic began. Scores on the scale measure of propensity toward help-seeking were, on average, 19.08 ($SD = 28.16$).

To get a sense of the data as a whole, descriptive statistics are provided. Average scores for depression, anxiety, and stress symptoms in this sample were 10.86 ($SD = 10.98$), 6.81 ($SD = 8.77$), and 11.61 ($SD = 10.02$), respectively. Scores on the additional predictor assessments for emotion regulation were $M_{clarity} = 5.56$ ($SD = 2.88$), $M_{Strategies} = 6.49$ ($SD = 2.99$), and $M_{Impulse} = 6.19$ ($SD = 2.91$); social support $M = 8.74$ ($SD = 3.19$); and mindfulness were 28.43 ($SD = 5.88$).

To gather information about the research questions, researchers sought to understand which of the predictors (mental health symptoms: depression, anxiety, stress; social support; emotion regulation difficulties: clarity, strategies, impulse; and dispositional mindfulness) were associated with an affirmative report of having sought help during the COVID-19 pandemic. Given that gender is often a powerful predictor of counseling initiation, it was included in the model. Other social determinants of health, including race, having sufficient financial resources to meet one's needs, and education, were also included in the model. Forward entry, binary logistic regression model was estimated for the binary outcome variables, and regression equations were built for the continuous outcome variables. The included demographic variables were not statistically significant predictors in any model and were consequently removed from the final models.

The results of a binary logistic regression predicting membership in one of two categories of having sought help at 60-day follow-up indicated that among the predictors, depression, anxiety, and gender were significant. See Table 1 for information about these predictors. The $R^2$ for this model is 0.248. Given that gender was a significant predictor, the authors conducted a Chi-square test to confirm the direction of effect, which was significant [$\chi^2(5) = 23.36$, $p < 0.01$]. The results indicated that women were more likely to have sought help than their male counterparts; examination of the crosstabs table confirmed this effect. No other demographic characteristics were significant in the model (i.e., race/ethnicity, financial resources available to meet needs, or education).

Next, researchers sought to understand which of the predictors were associated with having sought *new* behavioral health services during the COVID-19 pandemic at 60-day follow-up. A

**Table 1**
Predictors of help-seeking at 60 days ($n = 812$; $R^2 = 0.248$)

| Predictor | β | *SE* | *p* | Exp (B) |
|---|---|---|---|---|
| DASS depression | 0.060 | 0.014 | 0.000 | 1.062 |
| DASS anxiety | 0.061 | 0.016 | 0.000 | 1.063 |
| Gender | 0.435 | 0.177 | 0.014 | 1.545 |
| DASS stress | | | ns | |
| ISEL social support | | | ns | |
| DERS clarity | | | ns | |
| DERS strategies | | | ns | |
| DERS impulse | | | ns | |
| CAMS-R mindfulness | | | ns | |
| Race/ethnicity | | | ns | |
| Financial resources available to meet needs | | | ns | |
| Education | | | ns | |

forward entry, binary logistic regression was estimated, using the same set of predictors. The results suggested that depression and anxiety were significant predictors of new help-seeking, as well as a lack of emotional clarity and social support. The results suggested that seeking new help during the COVID-19 pandemic is associated with lower depression, but higher anxiety, and fewer social supports. Table 2 provides a summary of the model; the $R^2$ is 0.507.

Finally, the researchers sought to understand respondents' ratings of propensity to seek help. A regression equation was estimated using the predictors, with the continuous rating of the likelihood of help-seeking as an outcome variable. The results suggested that only scores on the DASS anxiety subscale were significant [$\beta = 1.232$, $SE = 0.186$, $p < 0.001$, 95% $CI = (0.867–1.597)$].

**Table 2**
Predictors of having sought new help at 60 days ($n = 812$; $R^2 = 0.507$)

| Predictor | β | *SE* | *p* | Exp(B) |
|---|---|---|---|---|
| DASS depression | −0.202 | 0.056 | 0.000 | 0.817 |
| DASS anxiety | 0.120 | 0.046 | 0.008 | 1.128 |
| DERS clarity | 0.586 | 0.164 | 0.000 | 1.797 |
| ISEL | −0.225 | 0.112 | 0.045 | 0.798 |
| DASS stress | | | ns | |
| DERS strategies | | | ns | |
| DERS impulse | | | ns | |
| CAMS-R mindfulness | | | ns | |
| Gender | | | ns | |
| Race/ethnicity | | | ns | |
| Financial resources available to meet needs | | | ns | |
| Education | | | ns | |

## Discussion

Descriptive results from this sample suggest comparably elevated levels of mental health symptoms and lower levels of available inter- and intrapersonal resources to leverage for coping with these strains. Based on scoring for the DASS-21,[59] depression scores for this sample at baseline in early April 2020 fell within the range described as mild symptoms (scores ranging from 10 to 12) while anxiety scores fell in the normal range (scores lower than 10). These averages are comparable or higher than those reported by other adult samples on the same measure while facing similar quarantine-like conditions during the COVID-19 pandemic.[64,65] Unfortunately, we have no information about the mental health of the sample prior to the onset of the COVID-19 pandemic and cannot estimate whether these scores represent new or worsening mental health disorders.

Average scores of perceived available social support and emotion regulation skills were lower for these participants than reported in other studies during the pandemic.[66,67] The results from 431,656 national surveys collected through a collaboration between the US Census Bureau, the CDC's National Center for Health Statistics (NCHS), and several other federal statistical agencies between August 2020 and February 2021 suggest the prevalence of those with unmet mental health needs rose significantly over the 6-month period.[68] Taken together, there is evidence this sample experienced noteworthy distress early in the pandemic, such that examinations of help-seeking for mental health symptoms during this timeframe were reasonable and warranted.

These results suggest that, while individuals with higher levels of anxiety rate their likelihood of help-seeking as higher, those who do seek psychological help are often experiencing higher levels of depression. Further, those who began new treatment for behavioral health difficulties during the COVID-19 pandemic reported lower social support and lower emotional clarity, specifically reporting difficulties articulating clearly how they felt when upset.

The results also indicated that women were more likely to seek psychological help, a finding that is consistent with existing literature.[34] What is not known from these results is whether there is a direct link between having sought help and experiencing benefits in mental health and well-being during the pandemic. Future studies should examine, prospectively and retrospectively, whether there is a direct association between mental health treatment and positive outcomes during disasters.

The results presented here echo others[69] that suggest that engagement in behavioral health care is driven by depression, indicating that depression is recognized by the American public as a troublesome experience that merits seeking support from professionals. Interestingly, our results indicate that anxiety scores were the sole significant predictor of help-seeking propensity ("how likely are you personally to seek help…"), despite a lack of significant contribution to models predicting ongoing or new engagement in professional mental health services during the pandemic.

Although also troubling, it is possible that experiences of anxiety have been so normalized during the COVID-19 pandemic that individuals do not think that anxiety alone merits seeking professional help. More work is needed to understand the social attitudes towards anxiety that might lead to normalizing pressures that dampen the felt need for mental health supports to manage the widely reported worry, fear, and uncertainty during the pandemic.

Further, these results point to the importance of social support in new service initiation. More research is needed to understand how patterns of perceived social support were impacted by the social distancing and other quarantine-like conditions that became widespread and evolved over the course of 2020. Some evidence[70,71] indicates that disruptions to access to familiar patterns of support seeking during the pandemic can negatively impact mental health symptoms.

### Limitations and future research

While the results of this study are interesting, the study is not without limitations. First, and most importantly, the COVID-19 pandemic in the USA continues to evolve as this paper was written. The present work represents a snapshot in time during an evolving health crisis. Next, the sample was obtained entirely online, through MTurk, and it is possible that this worker pool is unique in ways that limit generalizability. For example, there is some nascent evidence that MTurk workers may be slightly more depressed than the general population,[72] though we noted no evidence of this in the current sample.

In addition, the measure of depression and anxiety, the DASS-21, has limited measurement and psychometric evaluation, and while self-reported mental health symptoms might be predictive of clinical diagnosis, scores cannot be taken as a diagnostic measure. Additional measurement considerations for future work might also include other measures of depression and anxiety using repeated measures designs that might better capture subgroup different across different samples, perhaps by including place-based indicators of stress known to contribute to health and well-being (e.g., availability or access to services by region and other relevant location-based determinants of health—like community-level rates of poverty and employment).

Future studies during widespread crises might also strengthen this field of study by including validated measures of mental health literacy to more reliably assess individuals' abilities to identify troubling mental health symptoms and the resources through which to treat them. Finally, we operationalized mental health help-seeking as the process by which one seeks support, input, and treatment from a clinical provider, such as a therapist, doctor, or other health professional. One can seek help for mental health concerns in innumerable ways and future studies should examine other forms of help-seeking, including lay help and self-help behaviors.

## Implications for Behavioral Health

Despite these limitations, the present study provides useful information about the factors associated with mental health help-seeking during the 2020 COVID-19 pandemic. Evidence is mounting that depression and anxiety symptoms were increasing during late 2020, particularly among adults 18–29 years of age and those with less than a high school education.[68] Evidence from international studies suggests rates of mental health service engagement during the pandemic were low,[4,5] though some caution is warranted when considering international comparators like the UK, where socialized healthcare shapes the modality and access to services in meaningful ways (e.g., mental health services delivered in a general provider practice or in group settings). Despite these clear trends in increased symptom severity, our results indicate that rates of help-seeking for mental health needs were consistently low across subgroups and were best predicted by depression and poorer inter- and intrapersonal resources to manage distressing emotions (lower social support and emotion regulation skills).

Interestingly, measures of social determinants of health including race, ethnicity, education level, and financial resources available to meet the needs that often explain variance in mental health service utilization were not significant predictors in our models. These findings indicate efforts to raise mental health literacy are warranted across demographic groups, especially during times of enduring widespread stress when access to familiar coping skills may be disrupted for all subgroups. Communities can improve their crisis response planning for future such events by incorporating information and resources about how to mitigate stress when social connections and access to health and community resources are likely to be complicated by public health and safety guidelines to protect the population (e.g., quarantine-like guidance to mitigate the spread of disease).

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**Declarations**

**Competing Interests** **The authors declare no competing interests.**

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