



Stress and Coping among Post-9/11 Veterans During COVID-19: A Qualitative Exploration

RESEARCH

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ABSTRACT

Behavioral health has been a topic of great concern during the COVID-19 pandemic, with researchers and health providers exhibiting special concern for populations who are at-risk for mental health and substance use disorders. American veterans are one such group, as they already experience behavioral health disorders at disproportionate rates, including posttraumatic stress disorder (PTSD), depression, anxiety, and substance use disorders (SUDs). To date, only a limited number of studies have evaluated the impact of the pandemic on the veteran population. The current study expands upon such work through a qualitative analysis of veterans' experiences during the pandemic. We conducted 23 indepth interviews with Post-9/11 veterans throughout the US via Zoom videoconferencing about their experiences with the pandemic. The findings show that veterans faced challenges during COVID-19, some of which are shared among those in general civilian populations, and others of which may be specific to veterans and servicemembers. In addition, some veterans have experienced exacerbated behavioral health concerns, such as increased substance use or mental health symptoms, while others have shown resilience and adaptation in the wake of collective, societal challenges. Our findings also point to the importance of providing resources and support to veteran and military populations during potentially distressing events.

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INTRODUCTION

A growing body of research has highlighted how the COVID-19 pandemic has exacerbated behavioral health issues and caused negative emotional reactions or harmful behaviors, including increases in substance use (Pfefferbaum & North, 2020). A recent review has highlighted mixed findings in alcohol use changes during COVID-19 (i.e., increases in alcohol use among some but not all individuals and groups), but suggested that alcohol consumption may have particularly increased among those with certain risk factors such as existing substance use and mental health problems, sociodemographic variables, and social and financial changes (Acuff et al., 2021). For example, one US study found increases in alcohol use overall among adults, with a stronger increase among women and non-Hispanic White individuals, and reported increased heavy drinking for women but not men (Pollard et al., 2020). Other studies have reported similar mixed results for changes in use of other substances, such as cannabis, where there have been some reports of increases in sales and consumption of cannabis to cope, but other reports of decreasing cannabis use due to factors such as lack of access during the pandemic (Boehnke et al., 2021; Brenneke et al., 2021; Schauer et al., 2021). Initial findings during the first year of the pandemic also point to increases in mental health symptoms among US adults and young adults, such as depression, anxiety, posttraumatic stress disorder (PTSD), and general stress (Ettman et al., 2020; Liu et al., 2020). Certain groups may be vulnerable to negative behavioral health outcomes during the pandemic (Alonzi et al., 2020), including individuals with pre-existing physical and mental health conditions. Preliminary research has indeed found that those with pre-existing mental health disorders or substance use disorders (SUDs) endorsed increases or initiation of alcohol, cannabis, or other drugs, as well as poorer mental health trajectories than those without pre-existing problems (Horigian et al., 2020; Rogers et al., 2020). Closely examining the effect of COVID-19 on vulnerable groups is therefore essential to prepare for effective post-COVID-19 behavioral health prevention and intervention efforts aimed at such groups.

One of the groups that may be vulnerable to behavioral health concerns during COVID-19 is US veterans. Some veterans face unique context-specific risks related to their deployment and subsequent reintegration into civilian life that may foster mental health symptoms and misuse of substances, and thus make them increasingly susceptible to additional problems during COVID-19 (Derefinko et al., 2018; Seal et al., 2011). Risk for veterans during COVID-19 might be seen through both individual- and systems-level lenses.

On a systems level, Bronfenbrenner's (1979) ecological framework posits that individuals are nested within micro-, meso-, exo-, and macro- systems which have transactional interactions with one another, and thus influence development in the individual and shape their environment (e.g., families, communities, etc.). For example, veterans with PTSD during COVID-19 may have actually had reduced symptomology from a reduction in social interactions and tasks outside of the home, while social isolation in others may have exacerbated symptoms of depression. The transactional and dynamic factors within Bonfenbrenner's model account for veteran-specific protective factors and risk factors, such as challenges with reintegration post-deployment and connectedness to service peers (Austin et al., 2020).

On an individual level, polyvictimization theory (Finkelhor et al., 2011) may help elucidate why veterans may be at risk for poor behavioral health outcomes. Polyvictimization theory posits that multiple traumatic or victimization experiences, such as adverse childhood experiences in addition to combat trauma and or military sexual trauma, have a cumulative effect on worse mental and behavioral health outcomes for individuals. Preliminary work in veteran populations by Davis et al. (2021) showed that veterans with polyvictimization experiences endorse greater depressive and PTSD symptoms, as well as increases in hazardous alcohol and cannabis use.

As with data on US adults in general however, studies of US veterans during COVID-19 have tended to report mixed results; for example, Wynn et al. (2021) conducted qualitative research among veterans and found that, while veterans generally reported worse mental health and social functioning during the early stages of the pandemic, during later follow up interviews, those with a history of psychosis or homelessness reported improvement while those without such history tended to remain at similar levels of functioning. Furthermore, in a nationally representative survey of veterans, Pietrzak et al. (2021) reported that while 12.8% had PTSD symptoms they attributed to the pandemic, nearly half experienced positive psychological changes or posttraumatic growth, and such changes were associated with a reduction in suicidal ideation. Na et al. (2021) also explored predictors of suicidal ideation during the pandemic among a nationally representative sample of veterans, and reported that COVID-19 infection, prepandemic psychiatric symptomology, past-year increase in symptom severity, and older age predicted suicidal ideation, whereas higher income and purpose in life served as protective factors. Another study reported that while alcohol use decreased overall among veterans during COVID-19, those with existing behavioral health conditions were more likely to use (Davis et al., 2021). Lastly, studies

during COVID-19 focusing on veterans who are not currently in treatment at the Veterans Health Administration (VHA) are sparse (Clair et al., 2021; Mattek et al., 2020).

THE PRESENT STUDY

The existing literature on behavioral health among veterans during the COVID-19 pandemic is limited and suggests a complicated picture which thus demands further, nuanced attention. As such, the present study provides a preliminary qualitative exploration of experiences among Post-9/11 US veterans during the first year of the COVID-19 pandemic. The sample of veterans in the present study draws on a larger sample of those who are not necessarily connected to healthcare services through the VHA. This qualitative exploration of personal narratives provides in-depth insights into how veterans experienced universal stressors associated with the pandemic, as well as additional stressors and coping strategies that may be unique to a veteran population. This exploratory approach, which allows for the emergence of novel themes, is appropriate given the unprecedented nature of the pandemic. We performed the interviews among a diverse sample of 23 veterans through a lens that accounts for both individual (e.g., relationship issues) and systems-level factors (e.g., access to healthcare) to understand how veterans portrayed their behavioral health, stress, and coping throughout COVID-19, as well as ways in which the pandemic could have been protective for veteran populations. We aimed, with this approach, to enable better-informed multicomponent prevention and intervention approaches to addressing behavioral health and general stress among veterans.

METHODS

PARTICIPANTS AND PROCEDURES

Interview subjects were participants in a larger longitudinal survey study of veterans assessed prior to and during the COVID-19 pandemic. All procedures of the larger study and of this specific project were reviewed and approved by the local Institutional Review Board at the University of Southern California where the study was conducted. Participants were initially recruited on general and veteranspecific social media websites as part of study on veteran behavioral health outcomes. US veterans from the Air Force, Army, Marine Corps, or Navy who were aged 18 to 40 were eligible to participate in an online survey. Demographics and details about recruitment and the protocol for the larger sample at the baseline assessment can be found in Davis et al. (2021). In brief, we recruited 1,230 veterans aged 18 to 40 from social media websites for a one-time survey study in February 2020. Participants received a \$20 Amazon gift card for their completion of the 20-minute online survey. Survey respondents were asked whether they would be willing to be contacted about general future research opportunities, with most reporting they would (85%). Once the pandemic led to lockdown orders in the US, we sought and received funding to recontact those veterans from the survey sample who had indicated interest in further research studies from our lab and enroll them in qualitative study to learn how the pandemic had affected them.

For the interviews, we targeted participants to achieve a representative sample of the larger study with respect to gender, endorsement of mental and behavioral health issues (e.g., PTSD, depression, alcohol use), and engagement in behavioral health care. We stratified the initial subsample of respondents who expressed interest by gender, race/ ethnicity, military service branch, mental health status (i.e., whether they had screened positive for PTSD, depression, and/or anxiety), substance use status (i.e., whether they had screened positive for substance and alcohol use), and whether the respondent had sought treatment through the VHA or non-VHA treatment settings. We identified and emailed 295 respondents who represented variation across each of the strata. Emails thanked participants for their participation in the survey study and asked them if they would like to be enrolled in another study where we would interview them about their experiences during the pandemic.

Twenty-three respondents replied to our initial outreach email and were scheduled for a one-time interview with at least one of four skilled interviewers (two men, two women) on the study team. While none of the researchers involved in this study are military servicemembers or veterans, we collectively have decades of experience researching military and veteran health, including performing primary qualitative data collection. In addition, several authors also have clinical experience among veteran populations.

A total of 23 participants completed the interviews (see *Table 1* for demographics). Interviews were conducted by video over Zoom during September and October of 2020. Four interviews were conducted by a pair of interviewers and the remaining were conducted by a single interviewer. Interviews lasted between 30 and 45 minutes. Participants received a \$50 Amazon gift card for their participation in the interview.

RESEARCH PROTOCOLS

The research team developed a semi-structured interview protocol that was designed to provide a grand tour of experiences throughout the pandemic. The semi-structured guide was designed to elicit narrative accounts of: (a) how the COVID-19 pandemic changed daily life for veterans and their families; (b) perceived stress brought on through the pandemic; (c) coping mechanisms and sources

	N (%)
Gender	
Men	16 (70%)
Women	7 (30%)
Branch of service	
Army	13 (57%)
Marine Corps	6 (26%)
Navy	3 (13%)
Air Force	1 (4%)
Race/ethnicity	
White	17 (74%)
Hispanic/Latinx	4 (17%)
Multiracial	2 (9%)
Region	
Midwest (IL, IN, KS, MI, MN, OH)	9 (39%)
Northeast (MA, NY, PA)	5 (22%)
South (KY, MD, TX, VA)	5 (22%)
West (CA, ID, OR)	4 (17%)
Behavioral health symptoms	
Depression positive screen	7 (30%)
PTSD positive screen	5 (22%)
Generalized anxiety disorder positive screen	7 (30%)
Hazardous alcohol use positive screen	7 (30%)
Behavioral health care receipt	
Any care at VA in lifetime	11 (48%)
Any care outside the VA in lifetime	9 (39%)
	MEAN (SD
Years served in the military	6.49 (2.98)
Years since separation	8.85 (5.40)

Table 1 Sample Description (N = 23).

of support; (d) changes to mental, behavioral, and physical health, including changes to alcohol and substance use; and (e) perspectives on potentially positive aspects of the pandemic and future goals, while still allowing participants to elaborate on aspects of their pandemic experiences they found particularly meaningful. The guide was first drafted by a skilled qualitative researcher with research experience performing interviews among military and veteran populations and further refined by the larger interdisciplinary research team leading the study.

ANALYTIC PLAN

Interviews were recorded, transcribed, and uploaded into Dedoose (2020), a qualitative data analysis software program. Dedoose is a commonly used, web-based application that facilitates team coding. We created a codebook based on the interview protocol and key research questions. The coding team co-coded two interviews and refined the codebook and application of codes. This was to

ensure specificity of the intended meaning of each code and consistency in which codes were applied to segments of an interview. The coding team met regularly to discuss any responses that were unclear. We calculated interrater reliability after 20% of the responses were coded with a pooled Cohen's Kappa coefficient and Cohen's Kappa for each of the codes (McHugh, 2012). Coding procedures were discussed within team meetings and refined until the pooled Cohen's Kappa coefficient and Cohen's Kappa for each code was >0.80, which demonstrates a high level of agreement and consistency across the qualitative analytic team (McHugh, 2012). Cohen's Kappa coefficient enumerates the degree of concordance in code applications relative to the degree of discordant code applications, while also accounting for concordance that could be the result of chance. A Cohen's Kappa coefficient of 1 indicates perfect agreement. A figure of >0.80 is widely accepted as a strong level of agreement among coders. Thematic analysis followed taking note of metaphors, phrases, repetition, and turning points in narratives (Butler-Kisber, 2010; Ryan & Bernard, 2003). In addition, we highlighted instances where veterans either confirmed or contradicted the hypothesis that veterans, as a potentially more vulnerable population, would be experiencing stress and adverse consequences during the pandemic. Key themes are presented based on the domain of interest below. Of note is the fact that while themes may appear under discrete categories below, many were intertwined; for example, a veteran spoke of physical pain in relation to worsening depression, and another mentioned increased alcohol use in relation to marital problems.

RESULTS

Table 2 presents exemplary quotes for each key theme endorsed by participants. Summaries of the findings are presented below.

STRESS AND WELLBEING

Stress was widely endorsed by participants. Stress was often attributed to general pandemic-related worry, work-related or financial stress, and increases in family responsibilities. It is important to note that participants also described some sources of stress as positive and opportunities for personal growth.

Economic and Financial

Financial and economic stressors were noted by some participants, including job loss, difficulties in finding employment, and reduced working hours for oneself or a partner/family member. Pandemic-related work changes

KEY THEME	EXEMPLARY QUOTE
Stress and Wellbeing	
Economic and financial	I had been actually unemployed for a pretty extended amount of time. I was mostly, a lot of my income was from my veteran's disability and donated plasma. And then a lot of my day to day was pretty much job hunting, which was almost exclusively online. So, I was already kind of spending a fair amount of time indoors and online as it were in the days leading up.
Family-related stressors	No matter what, when you get all of your kids together, there's going to be bickering. There's going to be fighting even with neurotypical kids. You throw in the non-neurotypical kid, and then there's, there's other issues that arise from that. Not being able to get him to his doctor's appointments was the biggest thing. Because over the phone that you can only do so much with appointments. And so, you know, it's, it's been a huge relief that the school has really pushed to get the kids back to school. A lot of the stress from that's been alleviated there's still that if, or when they decide that they're, you know, if, or when my kids come into contact because with sports and everything like that, they're exposed to not only the kids that are in the classrooms, but the kids who are in sports and their parents, and then at the different games and the cross country meets and things like that.
Changes to routines	For me actually, I think it kind of helps because I have a little bit of like social anxiety, so I don't really like going out places. So, with everything being closed, it kind of made it so I didn't have to.
Mental Health	
Anxiety	I would attribute the pandemic to having a, a small increase in [anxiety], just because there were so many unknowns and so much information whether misinformation or not, I don't know, so much information out there about COVID and then the lack of information at the same time kind of made it hard to make decisions and kind of just contributes to the anxiety.
Depression	I mean like depression's high, because I don't feel like I have a purpose and I'm like spinning my wheels all day trying to find shit to do. And then I look in the mirror and I fucking gain 35 pounds. So, like I'm probably more depressed.
Posttraumatic Stress Disorder	I don't have the stressors that bother me with my PTSD during the day, like the social anxiety, the like I'm like hypervigilant when people are like behind me and things like that. But when I'm home by myself, I don't have to really worry about a lot of that.
Anger	Well anger, it's just so easy, you know where you're feeling all these other things, frustration, fear, you know, what have you, anger is just kind of the easiest thing to just latch onto.
Substance Use	
Alcohol	I think at the beginning of it, I drank a little bit more because it was, I don't know, it was kind of a weird time and you couldn't really go anywhere, you can't do anything. And the weather was nice and we have a swimming pool and a fire pit and I was like, Oh, I guess it's five o'clock somewhere today. It was more than usual. And more like more days than usual, but I don't think it didn't last that long and I feel like it was like kind of, I don't know. I was like, okay. It's time to time to really reel it in a little bit.
Tobacco/Nicotine	I enjoy a cigar every now and then, where I might've had one to four a year pre-pandemic. I might've had six, no, a little bit more, more frequently. Cause yeah, I had the time to. Hey, well I guess I'll go sit in the backyard and smoke a cigarette, enjoy the out there, smoke a cigar and enjoy the outside time. But really didn't ratchet it up on there.
Marijuana and other drug use	My doctor actually a couple of years ago suggested I try weed for sleeping and I did. And I was like, Oh, wow, this actually works. I'm not a guy that like goes out and smokes a joint. Like, I don't really like being high. It just really does work to knock me out.
Physical Health	
COVID-19	They are saying like that people with, uh, like preexisting conditions are like more at risk of like this disease being like fatal, like more fatal to them. Um, I think about like that, and I'm like, oh, I made it through once, who's to say that I would be able to go through it a second time and make it.
Public health behaviors	We social distance, but we've allowed visitors here and there, but we're very strict with the hand washing and the masks and who we allow around the baby, even with, with the siblings, we make sure they wash their hands.
Pain	Headaches definitely increased. More, they just more, I have lupus, so I know a lot of it stems from that. But just more joint pain, more achiness during that time. And I, I feel like stress does make it worse.
Sleep	I couldn't stop watching the news when it all first started happening I mean, I've always had sleep problems, but I think that's intensified.
Diet and exercise	Like going to constant availability of food during the workday and, you know, nothing's stopping you from having three well prepared meals. Like definitely, you know, pants too tight by month four and, you know, really having to have a concerted effort like, wait, you know, I actually have to exercise still. Can't just pig out.

KEY THEME	EXEMPLARY QUOTE
Healthcare Access	
Difficulties in access	I think probably the biggest impact that it has is that it's a little harder for me to kind of follow up with my provider in terms of like what we discussed last time. 'Cause when I was getting seen every week, there was a sort of like progression that was being tracked. You know, there was something that I was, I needed to do every week to kind of, you know, progress, and work on like a certain issue that I'm working on. But then, you know, in the past couple months, it's those sessions have kind of fallen through in favor of a, you know, how am I able to update the doctor on everything that's happened to me in the last six, six weeks and how am I feeling about this and that? I was spending all my time just catching up essentially. So, the care is not as effective as it used to be.
Telehealth services	They actually set up a pretty quick telehealth thing that I was able to do. I've had an appointment with him about once a quarter, no issues. I've actually got another one set up Monday. Um, very similar. They don't use zoom, they use whatever the VA uses, but same thing. I'll get an email. Here's a link, this time call in, do a quick 10-to-15-minute checkoff. Any questions? Here's your refill, have a nice day.
Social Life	
Decreases	It was kind of a culture shock because we would have our same, like, I think like four or five friends over at least once every two weeks, or we would say to one of our friends and his wife typically once a week. And then all of a sudden it went from that to like a, a month and a half, two months without seeing any of them. Whereas like the, we would do like video Hangouts or virtual friendships is what we called it. But I mean, which is great, but it still, I mean, looking at somebody in the screen is completely different than sitting across the room from them.
Increases/No change	I've probably been a lot more social with my close friends and family. A lot of it is kind of you know, communicating online. We have a very a lot of my friends have kind of had like a small group of like three or four people that kind of don't really have big social circles. So we kind of formed our own and we'll occasionally do something in person, but for the most part it's kind of online communicating you know, finding different apps that allow us to like watch the same movie, you know, remotely just kind of finding ways around the distance.
Social support	I mean, at least in my situation, we're doing good, and you know, it shows. Like I said, I would go out, I would get the supplies for the family, make sure everybody had what they need it. And when other family members would be doing their things, they would do the same. You know, if they thought that there was something that we needed, 'Hey, I was out saw this thought, you might need this too.' So, in that sense, like people, for the most part, helping other people, you know, despite what you see in the news, people only want to see what's going wrong in the world. People don't want to see what's going right.
Positive Changes	
Personal growth	For me moving forward with my professional goals is definitely something that has to happen, you know, pandemic or no pandemic. That's not something I want to put on pause.
Time with family/loved ones	The nuclear family is probably a little bit tighter because we're spending more time together and we've had some kind of hard talks about, hey, in case things kind of go south, this is what we're going to do to take care of us.
Military Attitudes and Resilience	I think a lot of veterans are probably better apt at dealing with the COVID stuff, because you're used to the rapid change all the time, you know? And you're used to following orders. If someone tells you to do something, right. You just do it. There's not a lot of questioning around oh, well, you know, this person's telling me I need to do this now, let's go ahead and do it, and betterment of society. I think a lot of veterans kind of have that in their back of their mind, you know, like there's a reason that we're doing what we're doing.

Table 2 Examples of Participant Responses Within Key Themes.

were stressful for some participants, and instability in the workplace created additional confusion and stress. These changes often included moving work to a hybrid/online format, changes in workflow or amount of work, and shifts in responsibilities (e.g., seeing COVID-19 patients in a healthcare setting, COVID-19 contact tracing/monitoring at the workplace). However, many participants experienced financial stability and success during the pandemic. Disability and/or veteran benefits helped some veterans in our sample maintain a steady income. Other participants found new employment during the pandemic in essential jobs (e.g., healthcare, food service), both full- and part-time, which thus increased financial stability. Additionally, some described spending less due to the closure of leisure activities and saving money from stimulus checks. A few

participants described changes in educational goals, which included stopping educational pursuits due to COVID-19, or on the contrary, starting online educational programs.

Family-Related Stressors

Participants discussed increases in childcare needs, which presented various challenges, such as adapting to school at home, meeting their children's diverse needs (e.g., children of different ages, children with special needs, children with lasting trauma), and protecting children during COVID-19. Participants who had children talked about having limited time for themselves or having to delay their own plans in order to take care of their children. At the same time, they frequently mentioned their gratitude for being able to spend more time with their children. Multiple participants

also experienced either themselves or a partner giving birth during COVID-19.

Some participants were dealing with relationship conflict with a spouse or significant other living in the home during the pandemic. For instance, one veteran described sleeping in the living room to avoid her spouse, whose alcohol and marijuana use became "tenfold" what it was pre-pandemic.

Changes to Routines

Veterans also endorsed miscellaneous routine changes as a result of the pandemic. This included disruptions to exercise routines and weight gain, inability to decompress, and not being able to engage in other regular activities. Some also talked about how the changes to one's routine were experienced positively and helped with social anxiety and PTSD, as they were no longer going to places that triggered their symptoms because of COVID-19.

MENTAL HEALTH

Anxiety

Participants reported general day-to-day feelings of anxiety, including anxiety related to the pandemic. Pandemic-related anxiety amounted to uncertainty about COVID-19 and the future and waiting for changes regarding work, lockdowns, regulations, or solutions. Some participants indicated feeling apprehensive to reach out for treatment for pandemic-related anxiety issues. On the other hand, some described relief from social anxiety and anxiety related to being in public due to quarantines or social distancing restrictions.

Depression

Most participants who endorsed feelings of depression discussed how the pandemic exacerbated or caused an onset of symptoms. Causes of depression notably included boredom, lack of purpose, being emotionally taxed or feeling "tapped out" due to COVID-19-related responsibilities, not being able to see friends and loved ones, being less physically active, and experiencing a lack of motivation overall. Participants who endorsed feelings of depression indicated these symptoms affected them mostly during the initial quarantine phase. A few experienced prolonged effects, while others talked about recovering over time.

Posttraumatic Stress Disorder

Our sample included individuals with pre-pandemic diagnoses of PTSD, with a few receiving prior treatment and medication. With the increased stress of the pandemic, some participants reported heightened symptoms, including feeling "on edge." Others reported that isolation helped mitigate their symptoms of PTSD, as triggers for

hyperarousal were no longer present, such as being in crowded areas. Others described utilizing different coping mechanisms to deal with PTSD symptoms during the pandemic, such as focusing on work or "staying grounded in reality."

Anger

A few participants endorsed experiencing anger as a response to stressors. Additional stressors exasperated or brought back symptoms of anger for participants who endorsed a history of "anger issues," with one participant initiating mental health treatment during the pandemic as a result.

SUBSTANCE USE

Alcohol

Some participants indicated increases in alcohol consumption for varying reasons, including having extra time off, boredom, self-medication (i.e., to cope with pandemic-related stressors, alleviate mental health symptoms, or sleep), or ease of consumption by drinking at home. Some of these increases were described as happening during the start of lockdowns in March/April 2020, but eventually waned off as the pandemic progressed.

More participants described either no change or decreases in their drinking behaviors during the COVID-19 pandemic. Participants indicated decreases in drinking days and quantity of drinking and often attributed this behavioral pattern to limited drinking activities/events, including a lack of social gatherings and bar closures.

Tobacco/Nicotine

There were not many notable changes in tobacco/nicotine use among participants, as most either indicated use staying relatively stable over time during the pandemic or not using. One participant discussed using tobacco/nicotine slightly more often during the pandemic due to more free time, but not a substantial amount.

Marijuana and Other Drug Use

Marijuana use was not endorsed highly, as some participants mentioned being in recovery from marijuana use dependence (non-COVID-19 related), not using due to employment regulations, or not using simply due to lack of interest. Marijuana use was mentioned by those who used it to facilitate sleep and to manage pain, though this was mostly CBD-only products. No participants mentioned using medicinal cannabis or receiving a new prescription for psychotropic medications. In addition, use of other drugs was not highly prevalent. One participant mentioned initiating cocaine following a month of heavy alcohol use

a few months after the start of the pandemic lockdowns to cope with stress, but eventually stopped after a self-described heart health scare. This veteran, however, then returned to alcohol use and declined a referral to see a substance use counselor.

PHYSICAL HEALTH

COVID-19

Several themes emerged regarding participants or others contracting COVID-19 and exposure to COVID-19 more generally. Notably, only one veteran believed he had contracted the virus himself, stating that he had experienced distinctive symptoms of the virus (e.g., loss of smell) which he attributed to the virus upon hearing about it in the news later. Two veterans noted that close family members had contracted COVID-19, and they both described feeling worried for their family member and others that might become exposed as a result of their family member getting sick. More generally, veterans were worried about themselves or loved ones with existing health conditions becoming exposed to the virus and having a particularly acute case of COVID-19, as veterans brought up children and other family members with weakened immune systems and conditions such as diabetes and asthma.

COVID-19-related lockdowns derailed many veterans' professional lives: one veteran who works for the court system detailed how the courthouse had to be shut down and several cases put on hold as a result of staff exposure. Similarly, two veterans noted that their children's schools had to quarantine children after several tested positive for the virus. In some cases, however, veterans or their loved ones could not avoid environments that they considered to be high-risk, because they worked or resided in medical facilities with high rates of infection. In fact, the only veteran who mentioned personally knowing individuals who died from the virus worked at a hospital where two other employees contracted the virus and passed away.

Adherence to Public Health Guidance

Veterans also commonly provided descriptions of public health requirements and the ways in which these were impacting their day to day lives. Veterans recounted feeling like they were planning for a crisis at the beginning of the pandemic and spoke of stockpiling food in order to avoid running out should stores close or supply chains become otherwise disrupted. Many veterans provided descriptions of their lives in the context of stay-at-home orders and social distancing, such as only being able to see the people in one's own household, being home almost all of the time, and ordering groceries online.

Veterans commonly expressed that public health requirements interfered with their social lives in particular.

While one veteran stated he was okay not seeing friends because he wanted to limit his and his friends' possible exposure to the virus, others described feeling depressed due to the lack of contact. Veterans also spoke of cancellations or changes to major social and professional events. Some of those with children also talked of public health requirements affecting their children's lives (e.g., social distancing at school, fewer interactions with friends, etc.), and veterans who recently had babies discussed having to postpone visits from members of their family.

On the other hand, some participants also expressed that public health requirements gave them a sense of safety and some normalcy. One participant spoke of wearing his N95 mask to see his mother, another described social gatherings with friends in which everybody brings their own food, and another stated that local bars had recently reopened with a mandatory mask order. Multiple veterans verbalized that their children quickly learned to comply with mask and sanitization requirements at school. Other veterans with infants expressed that strict hand washing and mask requirements have allowed them to have a limited number of visitors. With respect to large events finally resuming safely, however, one veteran spoke of the need for an efficacious COVID-19 vaccine.

Sleep and Pain

COVID-19-related stress and lifestyle changes led to the development of health behavior problems or worsened existing problems for many veterans. Several veterans mentioned experiencing worsened sleep hygiene due to the stress of the pandemic, with one veteran discussing how their children had less structured sleep schedules from staying at home for school, and noting that children being awake and making noise late at night affected the quality of everyone's sleep in the house. On the other hand, one veteran did note they had been "probably sleeping better than [they] have in years."

With respect to physical pain, one veteran stated increased stress was worsening existing problems with pain, and another stated that increased pain was likely contributing to feelings of depression.

Diet and Exercise

Veterans also commonly reported worsening diets and physical inactivity during the pandemic, contributing to weight gain in some cases. Veterans cited boredom, access to food at any time while at home, and lack of availability of healthy food at the grocery store during early stages of the pandemic as contributing to poorer eating habits. With respect to exercise, veterans were limited by gym closures and by instructions to stay indoors generally. One veteran, however, described finding "ways to adapt" such as going

for walks and runs and working out in other ways while at home.

HEALTHCARE ACCESS

Difficulty in Access

Veterans commonly reported a reduction in healthcare access due to COVID-related medical facility closures and reductions in staffing. This applied across a range of services including physical examinations, dentistry, cardiology, and endocrinology. Veterans reported having to wait long periods of time to receive a call back from their doctor, and that in many cases services were only being scheduled for emergencies. In some cases, veterans had simply not tried to get care, at times citing concerns about exposure to COVID-19. Veterans commonly expressed that their chronic health conditions were not as well managed since they were less engaged with their providers. Furthermore, multiple veterans or their partners experienced pregnancy and childbirth during the pandemic, and they felt reduced access to medical providers and related services complicated their pregnancy and delivery.

Telehealth

In lieu of in-person health appointments, some veterans reported receiving care for themselves and/or their children remotely, via telephone or internet video services (i.e., telehealth). This was particularly common for the management of mental health conditions. Veterans' levels of satisfaction with telehealth varied. Many found it problematic in some way, citing shortened visits, a belief that it was difficult for remote providers to assess them properly, and poorer rapport and communication. Two veterans who received mental health care via telehealth felt the availability of telehealth paradoxically made it more difficult to get appointments, as they suspected that more people were likely scheduling and attending their appointments. On the other hand, some veterans appreciated the convenience of telehealth and thus favored it over in-person appointments.

SOCIAL LIFE AND SUPPORT

Changes in Social Life

Due to social distancing and quarantine, many indicated a lack of face-to-face interaction contributing to a sudden reduction in social support/fulfillment. Participants who indicated decreases in social life often also reported loneliness or isolation and feelings of depression in conjunction with those changes. Decreases were specifically related to others and/or participants themselves needing to mitigate health risks related to socialization, and the cancellation or closure of events and places.

Other participants however reported having an increase in social activities, as online opportunities for socialization

were able to bolster connections for some. Some indicated no changes in behavior as they were not socializing much before the pandemic, and thus restrictions made little to no difference.

Social Support

Many participants discussed sources of social support as an important facet of their pandemic experience. Support between family and friends was a common theme, whether that included staying in touch virtually with others, or relying on coworkers and family members for in-person social fulfillment.

POSITIVE CHANGES

Personal Growth

Alongside challenges expressed, participants also indicated positive changes and goals as a result of living through the pandemic. Some individuals reported becoming more driven and focused on personal goals, which included advancing in education and career paths. Others discussed developing a focus on improving their mental and physical health. Participants often endorsed deciding to pursue this as a future goal as a result of the mental and physical health challenges they experienced during the pandemic.

Time with Family and/or Loved Ones

Many participants expressed that a positive part of the pandemic was spending more time with family members and/or loved ones due to being at home more often. Specifically, several discussed spending more time with their spouses and children. Some indicated that having the shared challenges of COVID-19 made their families closer.

MILITARY ATTITUDES AND RESILIENCE

Participants commonly endorsed feeling that their prior military experiences and attitudes influenced how they navigated the challenges of the COVID-19 pandemic. One theme was that of "pulling yourself up by the bootstraps," where participants endorsed feeling they had to deal with problems related to COVID-19 on their own, without help, or without complaining. However, some participants reported struggling with depression, anxiety, and substance use disorders, alluding to the common military belief that leaning on support is a sign of weakness as a reason to avoid seeking care.

Others talked about their military experience and prior adversity priming them with the ability and/or resilience to get through the pandemic. This was often mentioned in the sense of being tied to a greater "mission." For some this contributed to them feeling that dealing with COVID-19 was not a terribly adverse experience, comparatively speaking. For others, this presented as comparing living

through COVID-19 to deployment and implementing the skills and mentality they learned in the military, as well as taking comfort in sacrifices made during COVID-19 via a sense of altruism for society.

DISCUSSION

Our in-depth qualitative findings highlighted a range of factors that impacted veterans' behavioral health and experiences during COVID-19. Some factors were ostensibly widely shared across veteran and non-veteran civilians, such as concern over family members contracting COVID-19, while others were likely more particular to veterans, such as using the resilience they built in the military to manage stress during the pandemic and giving oneself over to a greater whole. The ecological framework scaffolds our understanding of the multiple interactions happening within the lives of veterans on various levels, which are shown in our results above. With respect to the original hypothesis of this study based on polyvictimization theory that veterans would be particularly susceptible to behavioral health impacts during the pandemic, some veterans did indeed struggle with behavioral health challenges. However, for others their military training and experiences may have enabled them to better adapt to the pandemic. Thus, we paint a more nuanced picture of veterans' adjustment during COVID-19 than might be suggested by the polyvictimization framework.

Qualitative interview data revealed relative stability among most veterans throughout the trying period of the initial months of the pandemic vis-à-vis the anticipated adverse behavioral health outcomes among a vulnerable population. Thus, while veterans endorsed a suite of financial, familial, and health stressors, many were able to overcome the hardships and receive support, provide support, and adapt to shifting situations after an initial shock.

However, while some veterans reported reducing alcohol and substance use for a variety of reasons, others intensified their use or even initiated drug use on account of stress and poor coping skills. These data show that the ways in which veterans frame their social support systems and their purpose in their lives (i.e., their goals, aspirations, and hopes) is important to grasp in understanding risks for alcohol and substance use and mental health disorders (e.g., depression and anxiety).

Notably, it appears that the degree to which a veteran ascribes to cultural models of military resilience, including the mentality of "pulling oneself up from their bootstraps," or feeling part of a greater "mission" in this sample may function as a protective factor for some veterans. However,

for others, such a mentality may have prohibited treatment seeking for mental health disorders by couching care as a source of weakness and therefore stigma. This is illustrative of the interactions between the macro-level military culture and the micro-level behavioral wellbeing. Veterans are traditionally a group that is resistant to seek behavioral health care (Smith et al., 2020; Tanielian et al., 2008; Vogt et al., 2014), and although the VA has made important strides in increasing access to behavioral health care via telehealth options during COVID-19 (Connolly et al., 2020), some veterans may not be receiving the care they need. Thus, aspects of military attitudes we uncovered provide important clinical considerations and may suggest a need for employing motivational interviewing to shift the mindset of treatment seeking as a weakness to a strength and one that helps contribute to the larger "mission."

This study found that veterans were relatively stable despite the challenges of the pandemic and the underlying vulnerabilities of the population. This reveals opportunities to explore how military- and veteran-related coping mechanisms during times of collective challenges like the COVID-19 pandemic can be leveraged to promote mental and behavioral health going forward.

LIMITATIONS AND STRENGTHS

The current study has a number of limitations. This was a small sample recruited outside of clinical settings; thus, mental health symptoms and substance use may not have been as severe pre- and peri-pandemic as they may have been if we looked at a sample in treatment for behavioral health concerns. Further, our sample, though representative in terms of gender and branch to the general US veteran population, was mostly comprised of White male veterans, which limits generalizability. Subsequent survey and interview studies from this team will focus on the particular challenges faced by women veterans. Future work is needed to fully understand the experiences of women and racial/ ethnic minority veterans. However, to our knowledge, this study is among the first to present qualitative findings of the lived experiences of US veterans during the COVID-19 pandemic. Results thus provide valuable understanding of veterans' behavioral health during the pandemic and point to ways in which veterans have incorporated the stressors of COVID-19 into their lives.

CONCLUSION

This study provided important insights into veterans' experiences with stress and coping during the COVID-19 pandemic. Although veterans reported personal struggles managing the pandemic, most reported that their

behavioral health, in terms of mental health symptoms and substance use, were manageable. Issues they were struggling with were often similar to what non-veterans may also be struggling, but veterans in the sample reported substantial social support and resilience that may be unique to this population. As the global population emerges from the worst of the pandemic, there is much concern about behavioral health (Pfefferbaum & North, 2020). These data, combined with other qualitative and quantitative work (Davis et al., 2021; Na et al., 2021; Pietrzak et al., 2021), suggests that veterans are not experiencing poor behavioral health as theory may have anticipated. However, it is important to note that all veterans in our sample reported some degree of difficulty coping with the pandemic, with some reporting worse stress and behavioral health symptoms than others. This makes it essential to continue to conduct studies with veterans during the pandemic and in the post-pandemic period to learn how best to design and implement prevention and intervention efforts to assist veterans in the future.

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COMPETING INTERESTS

The authors have no competing interests to declare.

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