and coped with. The effects of the work stressors can be buffered by individual or organizational resources.

So this framework helped us to construct our focus group guide, questions, and our analysis. We recruited participants who had previously participated in the RN Work Project, which was a 10-year panel study of newly licensed nurses funded by the Robert Wood Johnson Foundation. These participants had consented to being contacted for future research opportunities.

We recruited our participants via email, and we ended up with a sample size of 41, which we randomly split into two identical virtual focus groups. So we conducted focus groups in early 2019 using a threaded discussion board called QualBoard, part of 20/20 Research's platform. Participants and researchers could engage in discussion using any internet-enabled device and at any and at any time of day.

We were able to probe, ask additional questions both to the group and to individuals, and to monitor the data for saturation. Conventional content analysis was used to analyze the data, and we imported all the data into ATLAS.ti. Initial analysis included a line-by-line review of the focus group transcripts by each of the three researchers.

A priori codes from the Work, Stress, and Health framework were included in the coding scheme, as well as additional codes generated by the researchers. Next from the codes, categories were developed in an iterative process, achieving consensus among the researchers. And finally, themes based on portions of the narrative assigned to each category were developed.

A team maintained a code book to ensure consistency and conceptual accuracy during the coding process and as well for reproducibility. In this next slide, you'll see a screenshot of the threaded discussion boards. It's not a real setting, but it can give you an idea of what the researchers and and participants saw when() TJ and 72 0 612 792 reW*nBT/F1 12 Tf1N0000912 0 6tica6h)27(rk P)6(oj7e)-13(7(kt2 0 612

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examine the types of work-related substances, that is, those that helped the participants to stay awake in preparation for their work shift or during their work shift, as well as to help them go to sleep after work.

And we described this by tallying the frequencies of substances mentioned by the participants. We then categorized these into stimulants and depressants. We found that caffeine was, by and large, the most commonly used stimulant, while other stimulants mentioned included things like Adderall and Nuvigil. In terms of depressants, participants described alcohol as the most common depressant, and smaller fractions of the sample mentioned depressants like antihistamines, like common over-the-counter drugs like Benadryl, and prescription sleeping pills like Ambien.

The three themes that developed were titled "See no evil, speak no evil, hear no evil," "It's somewhere out there," and "Caffeine is king and alcohol is queen." So, participants flat out denied knowing, hearing, or seeing substance use, that is, illegal or recreational substances, in themselves or those who they worked with.

We have many examples similar to this first quotation, saying, "I have not heard any nurses I work with mention substance use." There were a few exceptions, however, in which there was some discussion of marijuana, particularly in cases where it was legal and outside of the work environment, which were noted clearly by the participants.

Here is an example. "While it's not brought up in conversation, it would not surprise me how many people use marijuana, even in the nursing profession. If it helps people cope and enjoy themselves, I'm all for it. Just not at work." So, our second theme reflects the indirect reporting of substance use. While not reporting substance use among colleagues or themselves directly, nurses were quick to point to a problem with substance use in the larger nursing profession.

Several participants made comments like this one. "I think it's a lot more prevalent than most people would like to admit." Another example is "I would go as far to say as that most nurses use some substance to get through the day, whether that's coffee, alcohol, sleep aids, recreational drugs, etc. I can't think of any nurse who I know who is substance-free." This theme suggests that there is still hesitation to openly discuss substance use, reflecting similarities in previous literature describing substance use as taboo or unacceptable among nurses and other healthcare workers, yet perhaps is a problematic issue in some proportion of nurses.

And finally, we developed a theme called "Caffeine is king and alcohol is queen." Here we reflected that participants readily described, at times, heavy use and reliance on legal substances like coffee, tea, energy drinks, and beer or wine, related to preparing and managing for their work day and subsequent time at home.

The first two quotes reference caffeine, and the third references alcohol. For example, "I drink coffee, three to four cups a day. And most of my coworkers drink coffee in varying amounts. Some drink other caffeinated beverages such as pop or energy drinks. And I've seen some people using herbal supplements as well." Another said, "It seems like we all come in with a coffee cup in our hands, and most of my coworkers crack a Red Bull by lunch."

And then finally, "I love my after-shift beer, and I'm not afraid to admit it. I run a hot bath, drink a beer or two, and then can actually get to sleep." The full manuscript detailing these findings are published in the Journal of Nursing Regulation, if you'd like to learn more. In the second part of this presentation, I'll focus on another paper that we're developing based on the participants' description of their sleep, shiftwork, and work stress, and how that impacts their wellbeing and patient outcomes.

Again, we've developed three themes: "Our voice should matter," "Tired but wired," and "We're only human." In our first theme, we found a multifaceted narrative regarding stress related to staffing, overtime, and on-call hours and the use of organizational resources and budget.

Overwhelmingly, participants wanted a safe patient care environment that included their voice in staffing decisions since they were the workers at the bedside. There was an undercurrent of frustration when administrators who made staffing decisions either weren't nurses or unfamiliar with the clinical challenges that nurses faced in an understaffed situation. This participant described, "I don't feel like we have a voice in staffing issues. The CNO and other administrators are fully aware of the stress that we are under due to poor staffing. They are reminded of it at least every month during nursing forums. The solution would seem to be just to hire more nurses, but we have been told that that is not in the budget. It adds a sense of hopelessness because the admins do not provide any solutions whatsoever."

Being asked to work overtime or take on additional cases was described as another form of stress. And at times, it was met with mixed feelings. Some felt like they could comfortably decline overtime, which is a good thing. However, others expressed a sense of guilt in declining overtime because they could empathize with their colleagues who are working in an understaffed situation.

For example, this participant described, "I feel like I can say no to the overtime, but I know what it is like to be at work and no one volunteers to work. You are on a sinking ship and no one is willing to help out, and that stinks." When a bonus or overtime hourly rate was offered, the financial incentive was often not worth the additional stress of working in an understaffed environment or on a scheduled day off.

This participant said, "We must really have a good reason not to take extra work, or help a coworker, or take a file. Depending on my day and the work, money or bonusing doesn't usually make a difference. It doesn't make a crappy or stressful day any better." Our second theme demonstrated nurses' articulation of the link between work stress, whether related to understaffing, difficult schedules, shiftwork, or sleep problems, and how the two are connected in a vicious cycle.

One participant explained the physiological experience of work stress and the impact on sleep. She said, "Your adrenaline pumps so much during a stressful shift that it's hard to wind down and go to sleep afterward. Sometimes I get no more than four hours of sleep due to this." Ruminating about a stressful shift at work or needing to decompress after a long shift often resulted in difficulty going to sleep.

This participant described, "As time has passed, I have found increasing difficulties sleeping after a

Our third theme explores nurses' description of what happens to them from several dimensions physical, mental, emotional when they're sleep-deprived due to their work schedules and/or shiftwork. The nurses further detailed how their exhaustion can lead to patient care problems.

We titled this theme "We're only human." First, the nurses described physical exhaustion from grueling work schedules, long shifts, and heavy workloads. This nurse describes, "When I work several days in a row, I feel drained and almost hung over with exhaustion, but I do get as much sleep as I am able to. It just feels constantly like I need more." The 12-hour shift was the most common shift in our sample, and it's the most common shift in the country.

But this shift is mentioned by participants as particularly tiring when working back to back to back or greater numbers of consecutive shifts. For example, this participant said, "Working three 12s makes my

stress fueled by heavy workloads and understaffing, as well as exhaustion from shiftwork and schedules, and signaled potential problems with substance use outside of caffeine and alcohol.

Interventions regarding sleep hygiene, when to seek evaluation for possible sleep disorders, and healthy coping strategies without the use of substances may offer promising next steps. The findings of this work are relevant and timely, especially given the high stress that the COVID-19 pandemic has brought upon the nursing workforce, where we're observing skyrocketing sleep problems related to work stress and anxiety.

Our findings confirmed previous quantitative studies on these topics that were studied separately and point to several action items to mitigate the negative sequelae of work stress and sleep problems. First, self-iiee uss6(t)ıı2 7tcgk p6tii

I think there's certainly a lot of dialogue happening regarding the hero narrative that has occurred post and during COVID. And I agree with the comment that sort of it can lead, in general, nurses can have this expectation that they have to always meet the care of others, and that if somehow perhaps they care for themselves, that that's not the most ideal situation.

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