

COVID-19—A Qualitative Orthopaedic Nurse Perspective

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In response to a March 2020, New York State mandate, our elective surgery center began a physical and operational transformation to provide inpatient care to COVID-19 patients. Research study aims included (1) a description of the orthopaedic nurses' experience during the pandemic, and (2) tactics used to cope with related stress. Researchers used a descriptive, qualitative design to achieve study aims. During April to December 2020, nine nurses responded to seven open-ended, study prompts asking them to journal their thoughts about the pandemic. The majority (66%) of participants were experienced nurses and all provided direct patient care. Nurses provided 51 journal entries that generated 12 themes, which encapsulated their experience living through the pandemic: (1) Whirlwind, (2) War, (3) Control, (4) Death and Dying, (5) Staying Safe, (6) Loss, (7) Looking for Meaning, (8) Whatever It Takes, (9) Adaptability and Resilience, (10) What I Have Learned, (11) The New Normal, and (12) When Will This Be Over? Orthopaedic nurses in this study pivoted to the needs of patients requiring them to draw on all their training and resources. Nurses described the enormity and taxing nature of the viral threat and their ability to manage their well-being while caring for patients and loved ones, amidst social distancing and need for aggressive infection control. Support from peers and leadership were paramount factors in nurse coping. Positive thinking and personal resilience were considered essential. Most participants described personal growth; however, decreased participation in journal responses overtime, suggested emotional strain. Future studies should examine nurses' observations about the impact of changes to their practice brought on by the pandemic, and reliance on technology.

Introduction

The COVID-19 pandemic is considered the second deadliest infectious scourge since the 1918 influenza pandemic that infected 500 million people (Rosenwald, 2020). The first patient in New York City to contract SARS-CoV-2, the virus that causes COVID-19, was identified on March 1, 2020. On March 22, 2020, Governor Andrew Cuomo's "New York State on PAUSE" executive order (Cuomo, 2020) went into effect. As occurred in states nationwide, this lockdown directive meant that nurses, physicians, and

other essential workers would continue to work, but the rest of New York State workers would work remotely. Three days later, the Governor ordered New York City hospitals to increase bed capacity by 50% and to cancel all elective procedures (Cuomo, 2020). These mandates greatly affected our hospital, an orthopaedic facility specializing in elective procedures, where inpatient capacity was reduced from 200 to 20 patients.

Within a week, our organization began a physical transformation to accommodate COVID-19 patient overflow from a large nearby teaching facility (Miller et al., 2020). Operating rooms and recovery settings were converted into intensive care units (ICUs) to meet anticipated demand for critical care of patients with COVID-19. Leaders augmented laboratory services to support diagnosis and treatment as well as converted orthopaedic inpatient units to provide general medical care with telemetry support. Our regional ambulatory sites were expanded to provide urgent orthopaedic treatment, digital access increased through telemedicine, and the hospital was designated as the New York City orthopaedic trauma center.

The shift in clinical focus required preparation of our facility's nurses to care for critically ill and contagious COVID-19 patients, rather than postoperative patients recovering from joint and spine surgery. Postanesthesia

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care unit nurses staffed newly configured COVID-19 ICUs. Although competent to provide critical care, these nurses were unused to caring for dying patients. Operating room nurses proficient in knowledge and skills required to practice in the high-tech, infection-controlled, surgical suite were less up-to-date in competencies associated with caring for medically complex and terminally ill people. As happened in many settings across the globe, preparing orthopaedic nurses at our institution to transition to COVID-19 care required mobilization of just-in-time education to ready them for clinically significant changes in practice (Santy-Tomlison et al., 2020). Our hospital began to accept COVID-19 patients on April 1, 2020. Over the course of 5 weeks, the facility provided inpatient care to 148 COVID-19 patients, 10 of whom did not survive.

Methods

The primary study aims were to understand among orthopaedic nurses at our facility (1) their experience working in an elective surgical setting that transformed into a regional COVID-19 overflow hospital, and (2) coping tactics they employed during the pandemic. We chose a qualitative, descriptive study design, suitable for exploring multiple perspectives and understanding phenomena relevant to practitioners (Sandelowski, 2000).

COPING THEORY

Lazarus and Folkman's (1984) Transactional Model of Stress and Coping guided our research. According to this model, individuals constantly appraise their environment and initiate coping strategies to manage their emotional reaction or influence the environment. Stress is defined as harmful, threatening, or challenging stimuli that exceeds a person's management strategies. Stress interpretation is a two-step process: threat assessment followed by stress reduction. Stress interpretation varies depending on personal attributes (i.e., self-efficacy) and resources (i.e., financial means). Coping consists of cognitive and behavioral efforts to manage demand-exceeding resources and involves an interplay between these appraisal processes.

Coping strategies are categorized as "problem focused" (directly managing the stressor) or "emotion focused" (regulating emotions arising from the stressor). Cognitive reappraisal based on the outcome of coping efforts determines coping effectiveness. Failure to cope with either strategy may generate further coping effort, with continued failure compounding negative distress. When coping strategies are exhausted, people may reach a crisis point involving panic attacks, psychotic breaks, or suicide. The theory conceives of stress as a cycle of transactions between individual and environment, experienced as disruptions to equilibrium and adaptive behaviors attempting to resolve this disequilibrium (Briggs et al., 2017).

According to Lazarus and Folkman, emotion-focused coping helps people adapt to intense emotional distress, when stressors are appraised as uncontrollable and resources insufficient to support problem-focused coping strategies. Emotion-focused coping is described as an

adaptive strategy, allowing individuals to combine resources to then engage in problem-focused coping strategies (Ben-Zur, 2009). However, persistent reliance on emotion-focused coping strategies over long periods of time is not considered to be beneficial as emotion-focused coping behaviors encourage individuals to disconnect from the problem. This in turn prevents further attempts to cope.

More recently described by Folkman (2008), unsuccessful coping may generate "meaning-focused" coping: drawing on one's values and beliefs to reorder life priorities, ascribe positive meaning to ordinary events, and to remind oneself of the benefits of stress. Meaning-focused coping elicits positive emotions, influences cognitive appraisals, sustains coping efforts over time, and provides relief from distress.

Sampling

A purposeful sampling approach identified nurses familiar with the COVID-19 experience (Creswell et al., 2011) and willing to participate (Bernard, 2002). Participation required an ability to communicate personal experiences and opinions through email. Direct care RNs employed at our institution were invited through the Nursing Inquiry Council, a self-governance structure consisting of nurses interested in nursing research. Members of the Council were asked to communicate this research opportunity with nurses on their units and investigator contact information was provided. Email invites with an introductory letter that explained the study purpose and its process was sent by the Inquiry Council Chair to the 20 nurses who expressed interest. The letter specified that a weekly reminder would be sent by email to provide a personal journaled response.

Ten nurses (50%) volunteered to participate. Review of participant data noted varied work experience, that is, direct patient care versus remote interaction as well as differing living circumstances, that is, living alone or with others. The study consisted journaling to six or seven prompts during April–June with a follow-up in December 2020. Nine nurses began the journaling process (90%) and remained in the study for Weeks 1–3 (100%); seven nurses participated in Week 4 (78%); and eight nurses in Weeks 5 and 6 (89%). Only three nurses (33%) responded to Prompt 7, which was issued 6 months after the study began and several of the original participants were no longer employed at the facility due to related COVID-19 staffing changes.

Data Collection

A request for demographic data collection was attached to the introductory emailed invitation. We collected participants' age, gender, education level, and years of nursing experience. Written narratives served as the data source for this study. To be clear about what we wanted participants to address (Speziale et al., 2011), prompts for journaling informed by Lazarus and Folkman's coping theory were provided to capture participants' thoughts and feelings about the pandemic

TABLE 1. PROMPTS SENT TO STUDY VOLUNTEERS

1. Describe your current thoughts and/or feelings about the COVID-19 pandemic
2. What are the sources of stress for you related to the COVID-19 pandemic?
3. Describe strategies you are using to cope with this stress. Include what personal strengths you have drawn upon.
4. Are there any personal stories or experiences you would like to share related to the COVID-19 pandemic? If so, please describe.
5. Reflecting on your experience to date, can you describe what, if anything, was gained from your experiences during COVID-19 pandemic.
6. Can you pass on any wisdom you may have gained to future practitioners who may not have lived through this type of event?
7. It has been 6 months since we began the COVID 19 journaling project. Has anything changed regarding how you view your experience to date and how you cope with the pandemic?

and their coping responses (see Table 1). The first six open-ended questions were emailed weekly, April through June 2020. The seventh question was emailed 6 months later in December 2020.

Data Analysis

Each investigator open-coded the data independently. Coding was reviewed by all investigators. Two researchers pulled out important phrases and made notes from coded data. Phrases and notes were compared and organized through repeated review of journaled responses. Thematic analysis was used to identify, analyze, and interpret patterns of meaning in the qualitative data (Braun & Clarke, 2006). This method does not require a specific epistemological or philosophical base; rather, the process seeks primarily to describe patterns across participant data. Through consensus, a final set of overarching themes emerged from the data.

Ethics

The study was approved by our organization's institutional review board. The invitation explained to potential participants that their participation was voluntary and they could opt out at any time. When recipients did not respond, they were sent a second invitation. To maintain confidentiality, those who volunteered to participate were instructed to select a pseudonym to protect their anonymity. Ongoing consent to participate was implied by volunteers' responses to each emailed reminder.

Findings

Participant ages ranged from 30 to 50 years. Most (66%) were experienced nurses. More than half (55%) had a graduate or doctoral degree. All were employed as direct care clinicians, but not all provided direct patient care during the study (i.e., remote patient interaction). Two

TABLE 2. DEMOGRAPHICS

Age (years)	
31-40	4 (44.4%)
41-50	4 (44.4%)
>60	1 (11%)
Gender	
Female	9 (100%)
Living with persons at high risk	
Yes	2 (22.2%)
No	7 (78%)
Years of RN experience	
1-5	1 (11%)
6-10	1 (11%)
11-20	4 (44%)
21-30	2 (22%)
>30	1 (11%)
Education	
Bachelors	4 (44%)
Masters	3 (33%)
Doctoral	2 (22%)

(22.2%) reported that they or someone they lived with were at high risk for severe COVID-19 (see Table 2).

The 51 journaled responses analyzed by researchers generated 12 themes encapsulating the experiences of orthopaedic nurses in our study: (1) Whirlwind, (2) War, (3) Control, (4) Death and Dying, (5) Staying Safe, (6) Loss, (7) Looking for Meaning, (8) Whatever It Takes, (9) Adaptability and Resilience, (10) What I Have Learned, (11) The New Normal, and (12) When Will This Be Over? (see Table 3).

THEME 1: WHIRLWIND

The theme of whirlwind metaphorically describes the nurses' experience of the COVID-19 pandemic, particularly in the early weeks. A whirlwind is often defined as a sudden situation that is full of quickly changing or confusing activity. (Cambridge Dictionary, n.d.b). Participants viewed the pandemic with initial shock or disbelief. All viewed COVID-19 as a threat; cognitive processing of its enormity and influence was similar in intensity. Participants described a constant change of information about the virus, daily upheaval, and navigation through a confusing ordeal. Participants used terms such as *rollercoaster* and *tornado* to describe the disruptive nature of the environmental threat. One feature of whirlwinds dissimilar from the pandemic is that whirlwinds are time limited and the pandemic's end remained uncertain during the study period.

The pandemic is certainly an event that no one saw coming. Participant (P) 9

The minute-by-minute reports about deaths, disease spread, ventilators, PPE—scary to say the least. Then the beat of political drums ... who's to blame, who's

TABLE 3. ALIGNMENT OF PROMPTS AND THEMES

Weekly Prompts	Themes
1. Describe your current thoughts and/or feelings about the COVID-19 pandemic.	Whirlwind War
2. What are the sources of stress for you related to the COVID-19 pandemic?	Control Staying Safe Death & Dying Loss
3. Describe strategies you are using to cope with this stress. Include what personal strengths you have drawn upon.	Whatever it Takes
4. Are there any personal stories or experiences you would like to share related to the COVID-19 pandemic? If so, please describe.	Looking for Meaning
5. Reflecting on your experience to date, can you describe what, if anything, was gained from your experiences during COVID-19 pandemic?	Adaptability & Resilience
6. Can you pass on any wisdom you may have gained to future practitioners who may not have lived through this type of event?	What I Have Learned The New Normal
7. It has been 6 months since we began the COVID-19 journaling project. Has anything changed regarding how you view your experience to date and how you cope with the pandemic?	When Will This Be Over

going to pay for it, what is the cost going to be, food shortages, manpower shortages, mask shortages ... and it goes on. Who should be tested, who can go back to work, when can you go back to work ...? New catch phrases—social distancing, mitigation, antibody testing, essential and not, the new normal. (P2)

The news was citing various ways of catching the virus and its highly contagious nature We were seeing hospitals being built overnight. Maps tracing possible contagious people all over the globe. Number of patients Covid (+) increasing by the day. Pictures of health care workers who looked defeated at best. (P8)

THEME 2: WAR

Participants viewed their experience in terms of being at war with the virus. *War* is defined as a situation in which there is strong competition between opposing sides or a great fight against something harmful (Cambridge Dictionary, n.d.a). Respondents made repeated references to war and warlike activities throughout the journals, many describing themselves in these terms as frontline workers caring for dying patients. Some experienced stress with being viewed as soldiers, rather than caregivers. Nightly applause aimed at supporting healthcare and other essential workers served to further confuse nurses about their roles, responsibilities, and purpose. Nurses wondered whether they were doing enough, and reported feeling conflicted about responsibilities to protect their loved ones versus their patients. This internal conflict may have been exacerbated by the war analogy so often used in the media and public discourse.

We anticipated every sick patient with dread, but [also] with valor, the forced honor of being a health care worker at such a time as this. We had to take up our sword and follow into the trenches where our leaders enjoined us in the direction of the battle. (P3)

THEME 3: CONTROL

Anxiety associated with the uncertain nature of the pandemic was pervasive among participants throughout the study period, most intensely in the early weeks. Work, family, and social norms were shaken and the sense of losing control was overwhelming. Nurses hastily worked to shield their families and patients from the virus. They struggled to manage their daily lives through new rigors of home schooling, social distancing, and changing work schedules. Those without children tried to stem the tide through professional volunteering. Choices between work and family were painful but accepted as necessary.

We live in a world where we may think that our lives [are] under our control, but this crisis is a clear validation that this is not the case. (P9)

THEME 4: DEATH AND DYING

Death loomed as a recurring theme across responses. As previously mentioned, our orthopaedic nurses were unaccustomed to caring for dying patients, and their exposure to them increased dramatically. Although this change was sudden and painful to experience, nurses expressed that they were most unnerved about the manner in which people were dying. The clinical, religious, and personal rituals associated with passages of life and death were forfeited or transformed because of social distancing requirements that made these deaths excruciating to witness. Respondents gave the impression that although it was difficult knowing that the deaths were caused by the virus, the restrictions around physical contact of dying patients compounded their feelings of sadness, grief, and resentment. Nurses connected with patients through whatever means possible and when necessary served as surrogate family members.

Being in an orthopedic hospital, we were not exposed to [dying] often. We had a total of 8 deaths, 7 were terminal weans. That meant the doctor pulled the tube and we made them comfortable and watched them die. We had to do anointing of the sick via FaceTime and the family said their last goodbye via FaceTime. That was probably the hardest part. Holding an iPad and having family tell these patients they loved them and it was ok. Then we reassured them they would not be alone when they passed and we held their hand until it was their time. If you were not in the room, you watched on the monitor outside. Some said prayers, some cried, some were in awe watching someone die in front of them.... I will never forget those that needed us to be there with them during that time. We all made sure no one was alone. We all let them die with dignity. (P4)

Overwhelming empathy for patients who are so sick and no loved ones to be by their side to support them and offer them strength. (P1)

Sad the first time I did the last rights with a patient and priest via FaceTime. Sad when the family said

goodbye via FaceTime. Sad to hold their hand when they took their last breath. (P4)

I tragically lost my 95 year old grandmother who was the matriarch of our family. She went quick and sad to say I didn't get the chance to say goodbye. Wake was cold and funeral colder with lack of hugs, kisses and holding hands. Not how she pictured her death, a woman who wanted to be laid out for five days!!!! (P7)

THEME 5: STAYING SAFE

Infection risks associated with caring for COVID-19 patients were always on the minds of participants. Concern for loved ones and family cohesiveness were recurring priorities. Nurses described struggles and choices made in order to meet the needs of self and family.

The biggest source of stress related to the Covid-19 pandemic is the threat to the health of family and friends. I was mostly concerned about my mom who has pre-existing conditions. (P5)

My first thought was I was scared. Scared to work with the sick patients, scared to work next door [at a sister hospital]. Scared to get sick. Scared to bring something home to my family. (P4)

Fear of getting sick, fear of being sick and then getting sicker, fear of our own mortality. (P1)

THEME 6: LOSS

In journaling throughout the study period, nurses assessed the sources of stress associated with COVID-19. The most extreme social cost was the painful and unsettling loss of life. Financial concerns were linked to a fear of unemployment and an uncertain economic future. Some hospital staff were furloughed at a percentage of their normal pay. Participants also yearned for life as they remembered it before COVID-19, a time when a sense of security was less hazy and not filled with so many questions. Nurses described exhaustion in trying to “keep things going” at work and at home, a price paid in mental and physical depletion while living through the ordeal.

The financial burden that this pandemic has caused many is worrisome; thankfully, most of my family and friends are in “essential” jobs but there are a few who have been out of work. So many lives changed from one day to the next. (P5)

Being home for 2 weeks on a smaller wage, poses stresses of a different sort. I am worried about the cost to the institution of paying out these salaries, without having an income in part because the patient load is low. I am worried for how long this can be sustained. (P3)

THEME 7: WHATEVER IT TAKES

Throughout the study, the nurses described actively scanning their internal and external environments to navigate the changes wrought by COVID-19. Nurses described varying perceptions of personal strength ranging from lack of confidence to resiliency. All participants referenced emotion-focused coping techniques. Negative or anxious thoughts were managed with cognitive reframing. Prayer and meditation were used to provide spiritual comfort. “Letting go” and “turning

over” where referenced as a means to unburden self and reduce fear.

My main personal strategy to minimize stress is identifying what I can do something about and what I can't ... I only have a certain amount of control over things and 100% of control over my reactions to them makes life manageable. I have both faith and hope—which allows me to be more positive than negative in life. (P2)

Practicing gratitude daily also helped me stay the course. I include this as part of my prayer every night. (P5)

Participants recalled the need to activate considerable mental energy to manage their responses to COVID-19-related stress. Withdrawal and detachment behaviors were used, but no respondents mentioned serious social isolation or other acute negative consequences (such as self-harm). None referenced using alcohol or drugs as a means of coping. However, it should be noted that at the 6-month follow-up (Prompt number 7), medication was mentioned as a coping strategy.

Problem-solving coping tactics were directed toward worries created by the pandemic. For example, to reduce infection risk, nurses described accessing and using personal protective equipment (PPE), which made them feel less anxious about getting sick (our institution experienced no PPE shortages). Seeking knowledge about the virus for personal and professional reasons helped manage stress. Interpersonal relationships were leaned on as a source of camaraderie and love. Humor was repeatedly referenced as a helpful behavior. Rest, sleep, and good nutrition were additional strategies to keep up strength and health during the pandemic. Exercise and creative outlets such as drawing and music were used as distractions.

I do feel very grateful to work for an institution that had the resources and the infrastructure to be so organized and intentional with our COVID-19 response. We are in a very privileged position and I am very glad that we were able to leverage that privilege to help other institutions. We did and continue to do the right thing. (P6)

Staying connected with friends through video chatting, keeping a positive mindset and growing in compassion toward others have all been extremely helpful in dealing with the current [situation]. (P9)

One thing that helped me was talking with some girls I have known for over 30 years. We are all nurses who work in different hospitals ... we would talk about the day. (P3)

I've found myself doing more art. I'm creating more than I normally do and trying out different mediums and subjects—painting, drawing, music. (P6)

THEME 8: LOOKING FOR MEANING

In response to Prompt number 4, when asked about experiences stories varied. Nurses further described the social impact of COVID-19-distancing restrictions and loss of family and friends to the virus. This open-ended

prompt provoked self-reflection that allowed participants to add to what they had already shared. Apart from theme of loss, nurses looked for meaning and sense of purpose through helping others and meaningful relationships.

I'd like to think that the pandemic has caused people to experience a renewal of their relationships with others Reverting to old habits is easy to do, but with everything we have learned through this pandemic, it would be refreshing to bring our newfound appreciation for others and our own selves into the process of rebuilding our society. (P9)

THEME 9: ADAPTABILITY AND RESILIENCE

During the initial phase of the study (4–6/2020) nurses expressed a longing to find their purpose in the midst of chaos and death. Most described some degree of character evolution and greater appreciation of what is important in life. During this phase, nurses adapted to changes and most experienced less acute stress over time. In some instances, they learned new coping skills, such as compartmentalized thinking. Nurses described gains in teamwork and some described personal growth and greater self-confidence. Self-development through navigating adversity was viewed as a transformative progress. Several participants described greater appreciation and time spent on what they valued most—for instance, the love of family, perseverance, and not taking things for granted. Overall, an emphasis on self-care emerged that included not only a more adaptable and flexible mental attitude but also physical care practices such as improved nutrition, sleep, and taking time for oneself.

I am noticing I am becoming more tolerant, more patient, letting things go, things I obsessed over. Dishes are left, vacuum is neglected, and toys are everywhere. It's good to take a deep breath, my priorities have changed. (P7)

I learned that I am stronger than I thought I could be. I was able to do my job, do my job well and balance my family life. I learned what a strong partner I have in my husband who picked up a lot of the slack at home. I learned that my kids will be ok (but they still need their momma). I learned how to balance work and home schooling. I learned that taking a little time away from the craziness of life is not that bad. I also learned I do miss just hanging out with friends and family. Even for a little bit. (P4)

I dedicate as much as I can to my children, knowing that I will not get this time back. We have made multiple achievements together such as teaching my son to ride a bike without training wheels, playing catch, letter and number recognition, and learning to tell time. I would have never had the opportunity to be able to spend countless full days with my children if there was no pandemic. (P7)

The amount of good that has come out of this crisis cannot be left unnoticed My family and I have grown in our relationships with one another, and my relationships with friends have developed as well The pandemic has shed light on the relationships that truly matter and ones that I find meaningful and purposeful. (P9)

What I've gained on a more personal note was the commitment and time to reconnect with high school friends, college friends who I was so close with, once upon a time. Plans have been made to meetup, train tickets purchased and we're excited. This pandemic gave us time and perspective and an important lesson to not take people or things for granted. (P8)

Participants described gains in professional growth and identity. The opportunity to practice nursing during a time of crisis and need was a fulfilling privilege. Nurses by nature like to help and the pandemic afforded means to be of service:

I had not realized how much I missed being directly on the floors working with patients When I became a nurse, I wanted to specifically work with communities of high need, who experienced barriers in their access to care. Being able to use our resources to care for all patients who need it gave me a great sense of pride. (P6)

In addition to individual growth, nurses described gains in self-image within the context of interprofessional teamwork that emerged during the crisis. Nurses conveyed confidence in caring for patients with medical needs despite more familiarity of working in a setting of routinely elective surgery patients.

In a minute everything changes and we just had to change with it. The nurse became the most relied upon team member; sometimes this is not always the case so it was refreshing to see the value of the RN I gained new meaning of teamwork; regardless of differences and role function, everyone did support and work together. (P1)

THEME 10: "WHAT I'VE LEARNED"

For the benefit of nurses working in future pandemic or public health crises of this magnitude, nurses documented lessons learned. They recommended patience and flexibility. This was an educated process that unfolded over time. Nurses recommended to future practitioners that they pay attention, have courage, and ask questions. They journaled on the importance of having good clinical skills, knowledge, and the importance of maintaining competency.

Be involved, be adaptable. (P8)

Maintain skills. (P1)

Stick to the basics! Think logically and not with fear. Ask questions and use your gut always. (P1)

After going through such a crisis, I would tell future practitioners that [being] willing to adapt to change quickly is probably the most crucial and helpful trait a healthcare worker can have. The fact that this crisis happened now, with so many advancements in health, technology, and knowledge in general, made it that much more of a shocking experience. (P9)

The complexity of patient care provided during the first surge of COVID-19 drew upon all professional capabilities and resources. There was the need for "just in time training," for example, refreshers on tracheostomy care, which made nurses apprehensive; however, they felt overall supported by the organization.

I do feel very grateful to work for an institution that had the resources and the infrastructure to be so organized and intentional with our Covid response. We are in a very privileged position and I am very glad that we were able to leverage that privilege to help other institutions. We did and continue to do the right thing. (F6)

... we were lucky at HSS, in terms of PPE and fast track education, the amount of resources [seems] endless. (P8)

Recommendations to future nurses were thoughtful and included self-care to sustain internal strength. Nurses described the importance of not taking for granted the gifts of everyday living and to prepare for the unexpected.

Don't get too comfortable and think it would never happen to us. I think that is probably the biggest. (P4)

I would also encourage future practitioners to maintain their own health the best they can. Making self-care a top priority should be at the forefront when educating future practitioners. (P9)

Be prepared and be ready to change your plans. I think that is good advice for anyone, nurse or otherwise, but especially true in relation to this pandemic. (P6)

I would start by saying try not to take anything in this life for granted. Life could and may change at any moment, where you may be unemployed, unable to shop both for food and clothes, and stuck home without social contact. Sounds unbelievable to even me and I lived through it. (P7)

Lesson Learned: Let the people I love know it. (P2)

The patients need us when we are here, the focus should be with them for the hours here, then on you and your family when home. (P1)

THEME 11: THE NEW NORMAL

The term "new normal" taken up by popular culture was a frequent expression to emphasize adaptation to change. This phrase was used to describe social order after major events such as World War II, 9/11, the Great Recession, and more recently the COVID-19 pandemic (Asomeny, 2020). "Return to New Normal" and the acronym RTNN were used at the study setting in communications including weekly updates streamed to all healthcare workers by clinical and administrative leadership. The future outlook was constantly on the minds of all participants eager for routine living.

When will we really "go back to normal," if at all? When can we stop wearing masks? When will a vaccine come out and will it be effective? How long do antibodies last and do they confer lifelong immunity? Why do people present with the virus in so many different ways? Will the economy bounce back? How long can our society sustain itself during this crisis? (P9)

My most [predominant] stressor is the uncertainty of the future. Will my mom be ok—given her current living situation? Will my family remain safe? Will I have a job given the reformatting of the work environment? (P2)

How will life change? How do we ever be social again? Will the economy recover from this? How will

we help those who have lost their jobs and the potential to be rehired soon? (P3)

This took us by surprise and the thought that our lives will never be the same is scary, but I am hopeful that our "new normal" will be better than what we were accustomed to. Hopefully, we learn from our experiences. (P5)

THEME 12: "WHEN WILL THIS BE OVER?"

Three months into the pandemic, the hospital resumed elective surgery and sustained adequate resources to meet the needs of patients. At this point, fewer participants journaled to prompts. Review of those who responded suggests fatigue and disappointment that daily living remained challenging. The overall tone of the responses was one of low energy and impatience. Medication was mentioned as a coping tactic, and participants described frustration with public discord and lack of trust related to misinformation, resulting in non-compliance with public safety precautions. This, combined with a heated election in a politically divided country, served to compound stress. Participants continued to "soldier on" as well as continued active coping activities, for example, donating plasma. There remained fear about contracting COVID-19 and anticipation of the vaccine.

I now have more information about the virus, how it spreads and what might work to control it. In the Spring, I had more faith in the ability to tame this beast despite all the hypothesizing, speculation, misinformation that circulated around. That is not so now. Despite the wonders of the potential "vaccine" I am worried. (P7)

I still get angry when I see people speak of how this was a hoax and how masks go against their rights. (P4)

My experiences this year are beyond anything I could have imagined. The number of things that have occurred still baffle me. Not only are we still in a global pandemic and receiving new direction every day on what the guidelines are for travel, work, school, and dining, but we have also experienced saddening civil unrest and a never-ending presidential election. (P9)

I rode to Central Park one day and saw the boarded-up store windows, I was disappointed. This was truly a reflection on our society. Never have I seen so much division and violence in my own lifetime, but then again, a pandemic and heated election will certainly do that to you! (P9)

Today, like most people, I am weary of the news, and distrustful of what I hear. Outwardly, I am calm. Overall, I am quieter and keep my distance. Inwardly, I am sad. I still haven't seen my mother—it has been 9 months. I miss my friends and my freedom to come and go. Yet, I am thankful. No one in my family is ill or has died How am I coping? I come to work every day, do what I am instructed to do and try my best. (P2)

I am happy to have been able to donate convalescent plasma and will continue to do so for as long as I have antibodies Initially, I felt discouraged. But, if COVID-19 taught me anything it was that I can

persevere. I made sure to keep this perspective as 2020 continued, as I would receive news from family and friends about their own personal struggles and would make sure to pass on this mindset with the intent to offer hope and strength in this unique time This pandemic has allowed me to grow in self-awareness and understand that our thoughts directly affect our emotions. As humans our thoughts are the most powerful thing we have. Therefore, I have learned that having a positive outlook is key and there is no emotion we can't handle. Knowing this, I am confident that we will be able to overcome this pandemic. (P9)

Discussion

Review of demographic data noted representation by nurses from varying orthopaedic clinical settings imposed by the pandemic (i.e., working in direct care and working at home). We considered this variation to be beneficial in our use of Lazarus and Folkman's theory to explore the participants' stressors and coping strategies related to the COVID-19 pandemic. The described experience of our nurses aligns with findings of previous research. Our participants described enormous personal stress, much the same as that observed by previous researchers (Ardebili et al., 2021; Cai et al., 2020; Foli et al., 2021; Gordon et al., 2021; Huang et al., 2021; Tan et al., 2020). Response to the outbreak was dramatic and rapid, driven by fear of disease duration and reach. Daily changes in information and planning contributed to uncertainty and the whirlwind-like experience the participants described in this study.

During the early months of the pandemic, government leaders used war metaphors to describe the response to COVID-19, as leaders in prior eras have done in seeking to contextualize nonmilitary health threats at the national level. For example, Richard Nixon declared a "War on Cancer" via the National Cancer Act in 1971 when he referred to cancer as a "relentless and insidious enemy" (National Cancer Institute, 2021). Participants in this study, as well as journalists, have employed the language of war to describe healthcare workers as soldiers on the front line facing down an invisible enemy (Wilkinson, 2020).

Some have critiqued the use of war terminology as an overly simplistic attempt to communicate the atrocity of COVID-19, warning that viewing the virus through this lens can influence how the public responds to it (Panzeri et al., 2021). For example, war requires winners and losers and views death as an inevitable consequence, with the victor surviving and the vanquished succumbing. Critics say that war analogies during times of public health crisis serve to promote a fighting rather than caring response, generating role confusion that may be particularly acute in healthcare workers (Marron et al., 2020).

Threat to family members was top of mind for most participants in this study and in others (Cabarkapa et al., 2020; Cai et al., 2020; Foli et al., 2021; Gray et al., 2021), including concern for sick patients and fear of getting ill (Khalid et al., 2016; Sun et al., 2020). Nurses described complicated efforts to control their environment and protect their families through social distancing, particularly in being available to both work and home school their children.

Participants described intense workloads and a heightened sense of moral responsibility and professional duty, which is consistent with studies conducted during the COVID-19 pandemic and prior outbreaks (Cai et al., 2020; Khalid et al., 2016; Lam et al., 2018). Consistent with the literature was the conflict for some in this study about providing care to patients with a disease with which they had little familiarity (Cabarkapa et al., 2020; Cai et al., 2020; Jia et al., 2021; Lam et al., 2018; Lam et al., 2020; LoGiudice & Bartos 2021; Nowell et al., 2021; Tan et al., 2020). Across studies including this one, nurses described the challenges of working in unfamiliar settings with continuously changing protocols as new information about the virus became available.

Apart from perceptions of clinical readiness, nurses in this study cited more than adequate organizational resources in the form of PPE, financial compensation, and family support. Access to these supports also ranked high on the list of importance to participants of prior research (Akkus et al., 2021; Cai et al., 2020; Lam et al., 2018; Lam et al., 2020; Sun et al., 2020). Infection prevention guidelines and information updates about the virus were also important resources observed in our and other studies (Ardebili et al., 2021; Khalid et al., 2016; Lam et al., 2020). Effective leadership played a vital role in stress management and participants described their organization with an attitude of pride and appreciation, which was reported in other studies (Cai et al., 2020; George et al., 2020; Lam et al., 2018; Nowell et al., 2021). Participants in our study shared this view and were pleased that they worked in a culture that was making extreme efforts to serve the community by transforming into a COVID-19 overflow and ICU setting.

Death was an unmistakable theme throughout our participants' journaling. Nurses in this study and others described difficulties in being present to their patients and acting as family surrogates during so many tragic deaths (Foli et al., 2021; Robinson & Stinson, 2021). This burden was particularly acute for nurses at our facility who were more familiar with caring for patients undergoing elective surgery where death is not a common outcome. Though observations of death were the most profound loss reported participants also reference loss of personal and work life routine and associated threats to financial security.

Strategies for coping with the pandemic depended mainly on interacting with the people most important to participants (Cabarkapa et al., 2020; Foli et al., 2021). Peer support has been described in the literature as a valuable resource (Cai et al., 2020; Lam et al., 2018; Sun et al., 2020), and this was confirmed by our findings. Nurses described application of both emotion-focused and problem-solving coping strategies. Reliance on emotional strategies involved, for example, positive thinking that emphasized concentration on one's own resilience and gratitude in the face of adversity (Huang et al., 2021; Sun et al., 2020; Zhang et al., 2021). More active strategies included those described elsewhere in the literature and included (a) spiritual practices and beliefs, (b) meditation, (c) music, (d) breathing exercises, (e) journaling, (f) humor, and (g) sleep (George et al., 2020; Gordon et al., 2021; Robinson & Stinson, 2021; Sun et al., 2020).

Nurses in this study also described self-development through navigating adversity and viewed this as a transformative progress. Description of values and not taking things for granted suggested meaning-focused coping. Application of meaning-focused coping may be at work here as nurses drawing on values, beliefs, and life priorities (Folkman, 2008).

Nurses in this study passed on recommendations for colleagues for future public health crises. They shared their views from the individual practitioner perspective. The first most important advice was maintaining clinical knowledge and skills and the second was self-care. Other studies did not ask this question directly, but maintaining skills and self-care were values expressed during discussions of the pandemic.

Throughout the study, references to the “new normal” were used by both the organization and the public communication. The expression implied that there was a state of social order that individuals could reference; however, most people experienced continuous change and this cliché misrepresented the continued experience of public uncertainty. Nurses in our study did report a personal transformation that made them more adaptable and resilient but that change was internal rather than environmental. There were also reports of professional development specific to teamwork arising from working together throughout the pandemic.

The majority of participants journaled consistently during the initial 2 months of the study. Over time, there was growing impatience and fatigue, which was compounded by political discord, which only furthered lack of confidence that things would get better and the pandemic under control. Concerns about the national election and civil unrest discussed in this study were not reported as stressors by other researchers during study implementation time frame. At 6-month follow-up, fewer participants ($n = 3$) responded to a single question about how they were currently coping. Participants expressed continued anxiety and described the outbreak as compounded by current events effected by public misinformation and nationally divisive, political views. All three participants described perseverance and were looking forward to a vaccine and life without the virus.

Limitations

Study limitations include constraints imposed by email as a method of data collection. The data collection process was not interactive, which averted the use of clarifying and explorative questions often used during semistructured interviews. The study provided for feedback from participants for more than 6 months. The sample was small but considered representative of our nurses. Themes in the initial phase of the study suggested saturation and transferability of findings. Responses to the last email reminder though few in number were intuitively familiar.

Benefits

Study benefits include rich, descriptive qualitative data that build on prior research. Unlike prior research, the

study elicited participant data over a 6-month period evidencing changes in nurse views and coping over a prolonged duration. Responses are in participants’ own written words and thus did not require transcription. The active voice in participants’ journaling spoke directly to what it was like and how colleagues might prepare for similar health threats in the future. The data were contextualized to the practice setting and provided a more informative picture of what it was like to work as an orthopaedic nurse during the first weeks of the pandemic.

Future Research

Recommendations by staff with respect to leadership investment in readiness can be standardized and tested, for example, training curriculums, refreshers and policies, and frameworks for peer support. The role of communication in reducing stress can be further advanced by technology and the impact studied on healthcare worker stress.

Conclusion

This study was undertaken to describe the experience of orthopaedic nurses working in an elective surgical facility that was transformed to manage COVID-19 overflow during the pandemic. Orthopaedic nurses in this study describe what it was like to work in an organization that pivoted to the needs of this new and vulnerable patient population that required them to draw on all their training and resources.

Nurses describe the enormity and taxing nature of the viral threat and their ability to manage their well-being while caring for patients and loved ones, amidst severe restrictions such as social distancing and the need for aggressive infection control. Support from peers and the leadership were paramount factors in coping, whereas descriptions of internal mechanisms such as positive thinking and personal resilience were also considered essential. Most participants described personal growth; however, overtime decreased participation in journaled responses suggested some emotional strain. This implication is further evidenced by descriptions of a new reliance on medication for coping and frustration with public and political discord.

Since our study was completed, vaccines have become available. Our organization mobilized to provide extensive immunization to both internal staff and the community. Efforts to create formal structures that support the well-being of staff have also been activated. Studies that examine nurses’ observations during the coming years should continue as they will inform practice and the work environment for example, the pandemic’s influence on the use of technology. Analysis should include continued value of lessons learned and coping skills found useful during COVID-19.

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