Synchronous teaching and asynchronous trauma: Exploring teacher trauma in the wake of Covid-19

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ABSTRACT

Following the onset of COVID-19, major subsections of our global society have shifted and mutated from the status quo of operation, especially in the field of education. A system that served far more social functions than just basic literacy and numeracy instruction, education has shifted out of the school buildings and into living rooms and spare bedrooms across the world. This research investigated the physical and psychological implications of traversing and functioning in this new virtual world that educators found themselves operating in. This study utilized narrative inquiry and survey data in order to gather mixed method data to gain a deeper understanding of the impact of COVID-19 and how educators processed and coped with the transition to distance learning. The findings illuminated narratives of trauma and managing stress in the face of the pandemic. Additional study may focus on replicating this research across multiple research locations.

1. Introduction and background

As COVID-19 began to ravage the United States in the first quarter of 2020, forcing schools to close overnight and devastating communities, educators were left scrambling to deliver their classes online without any virtual teacher training or time to process the impact of the pandemic themselves. This research tells the intersecting identity stories of teachers, parents and researchers as the pandemic unfurled.

Teachers do not "fold neatly away in the desk at the close of the school day" (Hill-Jackson, 2018, p. xiii). Teacher identity has become a leading area of education research (Beijaard et al., 2004; Connelly & Clandinin, 1999; Middleton, 2014), and understanding the narratives of their lived experience is essential in understanding how teachers navigate this "relational phenomenon" (Beijaard et al., 2004, p. 108). Philips (1994) contended, "Listening to a story requires us to involve ourselves in another's world of time, embodiment, relationship, meaning, and concern" (p. 10). Understanding through narrative inquiry (Connelly & Clandinin, 1990) how educators and parents navigate, process, and cope with the trauma caused during the COVID-19 pandemic is the focus of this research.

1.1. Synchronous and asynchronous online teaching

Synchronous online teaching is characterized by real-time instruction by distance that attempts to mimic the classroom experience as organically as possible (Johnson, 2006; Tallent-Runnels et al., 2006). Teachers and students needed access to virtual platforms to facilitate interactions between teachers and students to conduct effective synchronous teaching. This teaching method required students to log on to their devices at the start of their scheduled school day and navigate in and out of virtual classrooms as they progressed through their schedules each day.

The amount of preparation required for synchronous online teaching is exponential compared to traditional classroom teaching, and online disruption can be attributed to a variety of variables, often simultaneously (Podgor, 2006). Although deemed the safest and most desirable way to proceed with student education, barriers to effective synchronous teaching in K-12 included the inability to control the distractions surrounding students, student access to one-to-one devices, reliable internet service for students and teachers (Karaman et al., 2013). In the lower grades, parental assistance was needed for students to learn to navigate the new online platforms or even to remind them to sit in their seat, pay attention, or stay on task. The lack of developmentally

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appropriate movement breaks and hands-on activities took a toll on both teachers and students. These barriers left many districts without synchronous online teaching as a viable option for their students. Initially, synchronous online teaching was engaging for the districts that attempted online learning due to the perceived novelty of the situation for both educators and students. However, as time passed, teacher emotions and attitudes became a factor preventing effective instruction (Frambaugh-Kritzer & Stolle, 2019), and the question of whether synchronous teaching online is effective and is developmentally appropriate for K-12 lingers.

Asynchronous online teaching is described as instruction that "students can log on to and work on even if no one else is logged on at the same time" (Tallent-Runnels et al., 2006, p. 93). Due to instructional mode allowing for more flexibility for students, teachers, and parents, many districts opted for this mode of instruction amidst the pandemic, especially with asynchronous online learning being a more convenient use of limited device availability. Asynchronous methods require "a higher degree of self-management on the part of the students" (Tallent-Runnels et al., 2006, p. 98), which requires more parent oversight and teacher communication to individual students. Asynchronous teaching lacks the social interaction that helps teach social skills and problem-solving and helps connect content to practice. This method was more practical for allocating resources and teaching older students; however, it lacked immediate feedback and control required for effective teaching, especially for younger students (Johnson, 2006), and still requires devices, reliable internet, and vast amounts of parental support.

Universities across the country have well-established both synchronous and asynchronous online teaching with the implementation of exclusively online courses and hybrid courses that meet both online and in-person or as an addition to regular course instruction for in-person courses (Little-Wiles & Naimi, 2011). Universities utilized learning management systems such as Blackboard and Moodle for online discussion boards, quizzes, tests, literature, and media (Little-Wiles & Naimi, 2011). These online platforms have allowed for the transition to fully online classes during COVID-19 by universities with relatively few transitional issues by university instructors. Conversely, K-12 public schools did not have a similar universally organized platform and "depend on a number of outside learning providers, and in most cases, K-12 school administrators tended to contract with multiple online learning providers to serve a variety of specific instructional needs" (Picciano & Seaman, 2019, p. 4). Teachers were forced to introduce multiple new platforms to students remotely, such as Google Classroom, Zoom, and Seesaw, making a central hub to organize students' online learning hard to come by (Picciano & Seaman, 2019). Many school districts did not have a universal learning management system already adopted, which left individual teachers, schools, and districts scrambling to plug the holes with multiple types of software and online accounts leading to organizational disarray for students and parents at home.

1.2. Impact of COVID-19 on neophyte teachers

All the participants in this research, except for Edwina and Luke, are pre-service or new teachers. Novice teachers are particularly vulnerable to high levels of stress that often lead to their resignation within the first five years of teaching (Darling-Hammond, 2000; Huberman, 1993; Ingersoll, 2001). This stress leads to teacher burnout and, ultimately, teacher turnover. Zysberg et al. (2017) explained the symptoms and indicators of burnout as "a multilevel response syndrome associated with prolonged exposure to stress and characterized by physical and psychological exhaustion, cynicism (as an interpersonal and emotional indication of built-up aggression), and a sense of helplessness and low self-efficacy" (p. 123). These symptoms can lead to anxiety, depression, diminished job performance, and can cause absenteeism. Gold (1985) attributed teacher attrition before retirement partly to "dealing with disruptive behavior, students' lack of interest in their work, new

programs, accountability testing, and excessive paperwork" (p.255). Moreover, Gold called for more systematic research to be conducted on the underlying feelings that "lead to burnout during student teaching" (p.257).

Researchers have shown novice teachers who lack adequate initial preparation are more likely to leave the profession (Anhorn, 2008; Darling-Hammond, 2003; Pearman & Lefever-Davis, 2012) and that the impetus for teacher attrition may very well begin in pre-service teacher education programs. Indeed, Anhorn (2008) described the experiences of new teachers as "overwhelming, hectic, beaten down, unsupported, humiliated, afraid, stressed, and drowning" (p.15). All too often, new teachers are left on their own, without help or guidance, and the resulting isolation that many teachers feel can magnify an already stressful situation for new teachers.

The onset of the COVID-19 pandemic exacerbated this situation for new teachers. Not only did they have the stress of being new to the profession, but they were also dealing with teaching their students from a distance. Teachers continued to worry about their students and their families, as well as being concerned for their own families. This unprecedented dilemma saw teachers changing their teaching plans overnight and rushing to upload curriculum to school online platforms. Many veteran teachers did not have any prior training, evaluation, or certification to teach online courses, let alone novice teachers or pre-service teachers on field placement or observation. Their efforts were somewhat of a trial by fire. New teachers may not have had a mentor or colleague who could guide them through this challenging time, which may have led to increased teacher trauma and potentially more significant attrition further down the line.

1.3. Asynchronous trauma

Trauma is an emotional response to a particularly disturbing event such as a natural disaster, a sexual assault, or serious injury (American Psychological Association, n.d.). Trauma leads to several harmful physical effects including gastrointestinal distress, cardiovascular diseases, and musculoskeletal pain (Boyraz et al., 2016; Boyraz & Waits, 2018). Researchers estimated that over half of people experience a traumatic event during their life. They also found that self-blame coping mechanisms, behavioral disengagement, and denial significantly predicted self-reported deleterious health effects (Boyraz et al., 2016). Researchers have also estimated that 6.4%–6.8% of the population will display post-traumatic stress disorder symptoms (PTSD) in their lifetime due to traumatic experiences (Boyraz et al., 2016; Kessler et al., 2005; Pietrzaka et al., 2011).

Those who are serving traumatized populations, such as therapists, social workers, and educators, are more vulnerable to "shared trauma" and "compassion fatigue" (Berger et al., 2016; Cohen et al., 2006; Saakvitne, 2002); that is, there are those who vicariously experience the trauma of the populations they serve which leads to emotional, physical, and cognitive responses. Teachers have long been documented as experiencing burnout, which is typically characterized by a reduced sense of personal achievement, exhaustion, and depersonalization (Friedman, 2000; Herman et al., 2018; Maslach et al., 2001). Teacher burnout leads to low performance by teachers which engenders low performance by students (Friedman & Farber, 1992). The similarity of these symptoms to PTSD is also known as Secondary Traumatic Stress (STS) or vicarious traumatization (Berger et al., 2016; Boscarino et al., 2004; McCann & Pearlman, 1990).

The stress that teachers experience through STS, burnout, and compassion fatigue can be passed on to their biological children as well: intergenerational trauma may be passed through an epigenetic change in the gametes, change in cortisol levels during gestation, or through the relationship with the parent changing after vicariously experiencing trauma (Antonelli, 2012; Bowers & Yehuda, 2016; Franklin et al., 2010; Yehuda et al., 2005). Historically, trauma has affected entire populations at a time, such as those that are displaced, marginalized, or

affected by a traumatic event (Antonelli, 2012; Myhra, 2011; Yehuda et al., 2005).

Students also experience trauma, and it is estimated that about a quarter of American children experience a potentially traumatic event by the age of three (Briggs-Gowan et al., 2010; Mongillo et al., 2009). Furthermore, trauma-informed education is an up-and-coming field of study (Cummings & Swindell, 2018) as researchers and educators recognize the impact of trauma on learning in childhood through its epigenetic and psychopathological effects (Boyce, 2014; Shonkoff & Garner, 2012).

1.4. COVID-19

The severity of COVID-19 has "disrupted billions of lives and endangered the global economy" (United Nations, 2020). This unprecedented event has caused thousands of people who were considered non-essential employees to work from alternate work locations, and American teachers had to adjust to teach their students from home. Not only did teachers have to adjust to a new classroom environment, but they also had to create and disseminate curricula to students of varying levels of ability. This new curriculum attempted to incorporate lessons for students receiving special education services, gifted students, English language learners, and on-level students.

In mid-March of 2020, the governor of Texas, Greg Abbott, closed universities, public K-12, and charter schools until the end of the school year (Swaby, 2020). Teachers of all levels, from kindergarten to university professors, attempted to teach their students online via Zoom or other online video teleconferencing services. The distinctive border between home and work had been blurred or eliminated entirely as many teachers tried to teach their students and care for their own children simultaneously. The following accounts from teachers, parents, and researchers give a unique insight into their lived experiences during these uncertain times.

2. Aim and research questions

1. How are educators navigating the demands of schooling amidst the COVID-19 pandemic?
2. How are educators processing the impact of the COVID-19 pandemic?
3. How are educators coping with the COVID-19 pandemic?

3. Theoretical framework

According to Clandinin and Connelly (2000), narrative inquiry has been used in various social science and humanities disciplines since the 1980s. Connelly and Clandinin (1990) assert that "narrative is a way of characterizing the phenomena of human experience and its study which is appropriate to many social science fields" (p.2). Simply put, narrative inquiry per Clandinin and Connelly (2000) "is stories lived and told" (p.20). Narratives of practice are shared by teachers, researchers, counselors, and therapists, among many others. Narrative inquiry allows us to burrow into teachers' stories to find commonalities between ourselves and others because "life—as we come to it and as it comes to others—is filled with narrative fragments, enacted in storied moments of time and space, and reflected upon and understood in terms of narrative unities and discontinuities" (Clandinin & Connelly, 2000, p. 17). These stories have a binding effect by teaching us "what is important about life, why we are here and how it is best to behave" (Lamott, 2018, p. 179). Clandinin and Connelly (2000) asserted that Dewey believed that experience was both social and personal and that experiences perpetuate further and fuller experiences. A depth of understanding for the experiences of others is acquired through detailed stories of lived experiences, as Clandinin and Connelly (2000) explained that:

Experience is what we study, and we study it narratively because narrative thinking is a key form of experience and a key way of writing and thinking about it. In effect, narrative thinking is part of the phenomenon of narrative. (p.18)

Each of the participants in this research holds multiple narrative identities, such as leaders, educators, students, mothers, wives, and daughters in this research, and recounting their experiences with the COVID-19 pandemic holds merit to gaining a deeper understanding of how these experiences have shaped and changed their lives.

Clandinin and Connelly (2000) also discussed narrative inquiry's three-dimensional space. They described three common places—situational, social, temporal—at the intersection of which is the space where narrative inquiry research takes place. These are similar to Joseph Schwab's (1973) description of the four common places of experience: subject matter, learner, teacher, and the milieu. The need for a "simultaneous exploration of all three commonplaces" (Connelly & Clandinin, 2006, p. 479) is required for narrative inquiry to be effective. Temporality is described as events and people always having a past, present, and a future and that it is "important to always try to understand people, places, and events as in the process, as always in transition" (Clandinin et al., 2007, p. 23). They highlighted that "narrative inquirers are concerned with personal conditions and, at the same time, with social conditions" (p. 480). By place, Connelly and Clandinin (2006) meant the actual "physical and topological boundaries of place or sequence of places where the inquiry and events take place" (p. 480). This description of the three-dimensional space fits with the interpretivist paradigm that Glesne (2011) described as "a world in which reality is socially constructed, complex, and ever changing" (p.8). Moreover, Connelly and Clandinin (1990) discussed the term "broadening," in response to general overview questions towards people and society. While Connelly and Clandinin (1990) stated that sometimes these are interesting questions, they are not strictly narrative questions. This requires "burrowing," in essence, rooting out the emotions connected with events and why the subject has "these feelings and what their origins might be" (p. 11). In this case, we, as researchers, burrowed into our own experiences surrounding the pandemic. Our feelings of helplessness and frustration became evident as the school year came to an end and we were still unsure about what would happen in the coming months.

4. Methodology

This research strongly aligned with narrative inquiry research methods (Clandinin & Connelly, 2000). However, it employed the use of surveys, and the researchers consider this to mean the research used a mixed methods research design (Creswell & Creswell, 2018; Patten & Newhart, 2018). Mixed methods research (Creswell & Creswell, 2018; Patten & Newhart, 2018) uses rich narrative and descriptive writing to convey as much authentic data as possible to the reader. Believability is increased because the hypothesis emerges, definitions are used in context, samples are purposive, and the design is flexible. It is important in mixed methods research to achieve triangulation in as many areas as possible to increase believability. This research employed data triangulation by gathering data from multiple participants in the form of narrative responses, personal emails, journal entries, and survey responses. These were collated by the participants and submitted to the researchers for analysis. It is important to understand that the participants in this research are also the researchers. This is a community of practice. Researcher triangulation was used for inter-rater reliability (Armstrong et al., 1997) and involved four researchers examining and using emergent coding on 20% of the data and concurring to 0.8. They then individually assessed the remainder of the data, and 13 codes emerged: anxiety, burnout, compassion fatigue, coping, depression, the ethic of care, expectations of teachers, fear, helplessness, isolation, safety, shifting roles, technology, and trauma. The researchers then used the item definitions established by Holmes and Rahe (1967) and Stamm (2010) and agreed that the codes collapsed into one of three emerged themes of: (a) navigating the demands of schooling amidst COVID-19, (b) processing the impact of COVID-19, and (c) coping with

COVID-19. How educators, students, and parents managed COVID-19 through teachers' expectations, ethics of care, safety, and technology were generally related to external factors. Furthermore, anxiety, burnout, compassion fatigue, depression, fear, helplessness, isolation, shifting roles, and trauma are typically associated with internal factors. There was an interconnectedness between external and internal reflection in participant narrative responses, personal emails, journal entries, and survey responses.

4.1. Surveys

This research utilized two surveys: the Holmes-Rahe Life Stress Inventory (Holmes and Rahe, 1967) and the Professional Quality of Life Scale (ProQOL) (Stamm, 2010). Participants completed these surveys amidst the COVID-19 pandemic.

The Holmes-Rahe Life Stress Inventory, or the Social Readjustment Rating Scale (SRRS), measures the likelihood of stressful events causing health issues and illnesses later in life (Holmes & Rahe, 1967). The inventory identified and utilized 43 different stressors that were each weighed based upon the perceived relative score ranging from 11 to 100 points. The identified stressors ranged from significant stressors such as the death of a spouse to minor stressors such as going on vacation. The inventory is self-scored based on the participants' life stressors in the past twelve months (Holmes & Rahe, 1967). If a score was greater than 300, it meant there was an 80% chance of falling ill or struggling with a mental health episode within the next two years (Holmes & Rahe, 1967). The lower the score was, the less likely the participant was to struggle with physical or mental illness within the near future.

The researchers chose the Holmes & Rahe Life Stress Inventory to determine the effects of life stressors on students, educators, and parents outside of those roles. According to Noone (2017), "The SRRS is surprisingly consistent despite the cross-cultural differences one would expect" (p. 581).

The Professional Quality of Life Scale (ProQOL) measures both the positive and negative effects on professionals in a serving or caretaking capacity. Educators are part of this serving or caretaking capacity as they are *in loco parentis,* as by the nature of the profession, they have a moral imperative to nurture, care, and support their students. The survey contains three subsections consisting of thirty questions that measure compassion satisfaction along with burnout and secondary traumatic stress, which are both elements of compassion fatigue (Stamm, 2010). The survey was scored on a Likert scale, with participants reflecting on to what degree each statement resonated with them within the previous thirty days. In this research, each participant completed and self-scored the survey to determine their levels in each sub-section.

The researchers chose to use this survey to see the positive and negative effects on each participant during the COVID-19 pandemic as their roles as educators, students, and parents shifted. Stamm (2010) stated that "while the incidence of developing problems associated with the negative aspects of providing care seems to be low, they are serious and can affect an individual, their family and close others, the care they provide, and their organizations" (p. 8).

4.2. Research context and setting

To garner a comprehensive understanding of the research context and setting, it is essential to provide a thick, rich description (Creswell & Miller, 2000; Tracy, 2010) of both the schools in which the educators work and their positionality within the research. Thick description is integral in enabling the reader to draw their own conclusions (Tracy, 2010) and achieve a feeling that the reader could have experienced the events described in the research (Creswell & Miller, 2000). Through this method, researchers can grasp a clearer understanding of context and tacit knowledge of participant experiences to "enable readers to make decisions about the applicability of the findings to other settings or similar contexts" (Creswell & Miller, 2000, p. 129). All the participants

are also researchers, and they all attended the same university in some capacity in the last 2 years as part of a master or doctorate in curriculum and instruction. Pseudonyms were used for all participants, schools, and the university. Therefore, the nuanced narrative of their experiences should be observed as some participants e.g., Katie is positioned within the identities of student and educator. This duality provided valuable insight into how participant researchers navigated both sides of the classroom(See Tables 1 and 2).

4.3. Researchers' perspectives

In narrative research it is important to provide the perspective from which the researchers are viewing themselves and the stories of the participants because "a wide variety of such viewpoints are possible. Whichever viewpoint the researcher selects will, during the conception, design, and conduct of the research, privilege the interests of one or more stakeholders" (Clarke & Davison, 2020).

5. Results and discussion of findings

As described in detail above, this research employed two surveys: the Holmes-Rahe Life Stress Inventory and the Professional Quality of Life Scale (ProQOL) to help give a more formed understanding of how COVID-19 was affecting the authors.

ProQOL measures the positive and negative aspects of professional quality of life. Fig. 2 is the positive aspect and compassion fatigue is the negative aspect, which breaks down into Figs. 3 and 4. The most positive result occurs when Fig. 2 is high while burnout and STS are low; this is evident in Rachel, who scored high in Fig. 2 and the highest of all participants, on the low end of moderate in Fig. 3, and in low on Fig. 4 and the lowest of all participants. Rachel was the only one with such a positive outcome. Luke and Danielle, the other two participants who scored high on Fig. 2, were each the highest in one of the other categories. Luke scored the highest in Fig. 3, which indicates that he experiences inefficacy and could be disengaged with his students (ProQOL manual, 2010, p. 22). Danielle scored the highest in Fig. 4 and was the only participant to score "high" in this aspect of ProQOL, but also scored high in Fig. 2 and moderate in Fig. 3, a combination that is "typically unique to high-risk situations such as working in areas of war and civil violence" (ProQOL manual, 2010, p. 23). Blaire had the highest score on the Fig. 1 and her results on the ProQOL show that she is likely to be experiencing Fig. 4 as a result of the pandemic. In conjunction with all participants having an 80% chance of a health crisis or mental health breakdown in the next two years, this shows that COVID-19 has had a deleterious effect on educators and students.

5.1. Themes

The three themes that emerged reflected the research questions and were labeled as: navigating the demands of schooling amidst COVID-19, processing the impact of COVID-19, and coping with COVID-19.

5.1.1. Navigating the demands of schooling amidst COVID-19

For educators, trying to navigate the demands primarily revolved around attempting to maintain some semblance of consistency as they tried to continue to deliver the curriculum through online classes and course packet drop off and delivery. This came with its own set of issues as Edwina noted "this unprecedented event left many educators in crisis, as they had not been properly trained in how to effectively teach online courses" (Edwina). This feeling of unpreparedness was expressed by university student and pre-service teacher, Eleanor, "it truly was the biggest stress that I've had from life changes that I've ever experienced" (Eleanor). This sentiment was also expressed by Blaire, a paraprofessional, as she struggled to contact her school's leadership "for the first few days, it was impossible to get in contact with anyone in administration within the district, so I struggled to know if I was going to

Table 1
Research setting demographics on general information, population served, and faculty.

	General Information	Population Served	Faculty Demographics
The University	• Tier 1 Research Institution • In rural Southeast Central Texas	• Just under 70,000 students • 55% Caucasian • 22% Hispanic • 8% Asian • 3% African-American • Remaining 12% is made up of multiracial, Native American, international students, or unknown	• Just over 7300 full-time faculty members • 66% White • 15% Hispanic/Latino • 7% Black/African-American • 7% Asian • Remaining 5% is made up of multiracial, Native American, Hawaiian/Pacific Islander, or unknown
Barrow Elementary	• Serves early childhood through fifth grade • In rural Southeast Central Texas • Title I • In 2018–2019 school year, it received an overall 'C' rating from the Texas Education Agency and received a 'C' rating in all categories assessed	• 324 Students • 68.8% Hispanic • 18.8% African-American • 10.8% White • .15% American Indian or Two or More Races • 82.1% experience low SES • 36.1% are English Language Learners • 25 are students with disabilities	• 27 Teachers • 77.8% White • 14.8% Hispanic • 7.4% Two or More Races • 0% African-American, American Indian, Asian/Pacific Islander • Teachers are 100% female • Highest degree held by teachers is 85.2% bachelor's degree and 14.8% master's degree • Average of 8.6 years experience with 3.6 years in district
Eagle Elementary	• Serves kindergarten through eighth grade • In suburban Southeast Central Texas • Free public charter • 2018–2019 school year was first year open • In 2018–2019 school year, it received an overall 'C' rating from the Texas Education Agency and the district received a 'B' rating • Received a 'C' rating in student achievement and a 'D' in school progress and closing the gaps	• 759 students in K-5th grade • 49.5% White • 28.5% Hispanic • 11.6% African-American • 5.9% Asian • 4.5% Two or More Races or American Indian • 46.5% of students are designated as at-risk • 40.4% of students experience low SES • 7.5% of students have limited English proficiency	• Just over 50 teachers and staff • 50.9% White • 27.7% Hispanic • 7.9% Asian • 4% African-American
Roberts Elementary	• Serves early childhood through fourth grade • In urban Southeast Central Texas • Title I • 2019–2020 school year is first year open • District received a 'B' overall rating during the 2018–2019 school year and a 'B' rating in all areas assessed	• District serves just over 14,000 students • 52.8% White • 13.2% African-American • 22.4% Hispanic • 7.8% Asian • 3.8% Multi-racial, American Indian, or Pacific Islander • 35.1% experience low SES • 34.4% are designated as at-risk • 8.5% are English Language Learners • 11% receive special education services	• District has over 900 full-time teachers • 84.6% White • 9.9% Hispanic • 3.8% African-American • Remaining 1.7% is comprised of Asian, American Indian, and multi-racial teachers

Note. The table shows the research setting demographics on general information, population served, and faculty for three schools and one university.

continue to get paid" (Blaire). For Rachel's own children, the transition to virtual learning was initially met with excitement "we received news that public schools in Texas were moving to a virtual format for the next couple of weeks. My kids were excited about virtual schooling, but they were beginning to miss their friends" (Rachel). However, for Katie, teaching in a low SES rural school, she immediately found herself frustrated by the expectations placed on her to try to cope with technology inequity when she wrote:

> With the implementation of alternative methods of instruction, we are expected to seamlessly navigate unknown terrain without consistent student access to technology. The district has required teachers to continue the scope and sequence as normal and teach our students with and without technology. (Katie)

The abrupt scramble to meet the demands amidst COVID-19 was also felt by Danielle when she reflected on her journal at the beginning of her school closing:

> We received a new email, detailing new plans and thoughts moving forward, what seems like multiple times a day, and by the middle of the first week closed, it had been determined that we were to transition our entire school, to online distance learning, and we had one week to do it.

She continued:

The school called an all staff meeting via a webinar app called Zoom with the intention of delivering the information they had currently and answering questions. It was in this meeting that the staff were told what online learning was supposed to look like. The plan was to teach a full regular school day, however all virtually. Problems and concerns arose immediately with this announcement.

At this point, the staff at the school where Danielle worked as a teaching aid highlighted their concerns and confusion regarding meeting the administrations expectations:

> What if students didn't have access to a device? What if students didn't have reliable internet or internet at all at home? How were we going to conduct classes online? Will teachers be able to go get supplies from their classrooms? How will they get supplies while trying to social distance in the building?

At the university level, Luke, who was teaching an undergraduate and a masters class, which had moved online when the university closed the campus, reflected on the barriers his students were facing in trying to navigate their education amidst COVID-19 when he wrote:

> Then I got an email from a student writing that she was behind in her work because she had to go home because a family member was sick. At the same time, I was an in-service teacher I had trained, posted to social media that her sister had Covid-19. It began to feel closer. (Luke)

Table 2

Participant demographics on background, education, and employment.

	Background	Education	Employment
Blaire	• American, White female • Recently married to a Canadian national undergoing immigration process	• Bachelor's degree from large Tier 1 research institution in Southeast Central Texas • Full-time graduate in Curriculum & Instruction at a large Tier 1 research institution in Southeast Central Texas	• Neophyte paraprofessional at urban Title I elementary school • Searching for job for upcoming 2020–2021 school year
Danielle	• German-Hispanic female perceived as White female • Grew up on a cattle ranch in small town and moved to a large Texas city in high school • Partner of nine years graduating with degree in engineering, searching for house together in Houston, TX	• Bachelor's degree in EC-6th Education from large Tier 1 research institution in Southeast Central Texas • Full-time graduate in Curriculum & Instruction at a large Tier 1 research institution in Southeast Central Texas	• Neophyte first grade instructional assistant at a free public charter school • Currently interviewing for K-2 positions at local school district in Houston, TX for upcoming 2020–2021 school year
Edwina	• White female • Grew up in Nigeria, Spain, Indonesia, and Bahrain because of father's job in oil industry • Identifies as "third culture" (Fail et al., 2004) • Been married for 24 years • Two sons in college	• Bachelor's degree from a university in Texas • Recently finished doctorate in Curriculum & Instruction from a large Tier 1 research institution in Southeast Central Texas	• Was a K-12 teacher for thirteen years • Adjunct professor at local junior college and state university in Houston, TX for nine years • Currently a postdoctoral research assistant for a program from the same university she recently graduated
Eleanor	• White female • Grew up in a suburb north of Dallas, TX • Partner of four years from nearby suburb north of Dallas searching for job in engineering north of Dallas	• Bachelor's degree from large Tier 1 research institution in Southeast Central Texas • Full-time graduate in Curriculum & Instruction at a large Tier 1 research institution in Southeast Central Texas	• Will be teaching in 2020–2021 school year in a suburb north of Dallas twenty miles from hometown in a Title I school
Katie	• White female • Grew up in Malaysia and England • Identifies as "third culture" (Fail et al., 2004) • Recently married and moved across the country	• Bachelor's degree from large Tier 1 research institution in Southeast Central Texas • Full-time graduate student in Curriculum & Instruction at a large Tier 1	• Neophyte first grade teacher at a rural Title 1 elementary school in Texas • Searching for a job in new home across the country

Table 2 (*continued*)

	Background	Education	Employment
		research institution in Southeast Central Texas	
Luke	• White male • Grew up in England, but has lived in Middle East and United States for over half of life • Identifies as "third culture" (Fail et al., 2004)	• Doctorate in Curriculum & Instruction from a large Tier 1 research institution in Southeast Central Texas	• Over twenty years of experience teaching and leading in a U.S. university and multiple international schools • University instructor and director of education outreach for two research centers at the same university he graduated from
Rachel	• White bisexual female • Married with five children	• Has AAS, currently pursuing bachelor's and Master's in Curriculum & Instruction at a large Tier 1 research institution in Southeast Central Texas	• Works part-time in a leadership role at the university

Note. The table shows the background, education, and current job position for each of the researcher participants.

Trying to navigate the various education systems for Blaire, Danielle, Katie, and Luke experienced as they tried to deliver education, and in the case of Blaire, Danielle, Eleanor, and Rachel receive education led to a plethora of reflection on how they were processing the impact of COVID-19 on themselves and those they hold an ethic of care towards.

5.1.2. Processing the impact of COVID-19

How educators and students were processing COVID-19 and the expectations on them was reflected on by Edwina, who is project lead on a university grant aimed at supporting educators' online professional development. She saw an upsurge of demand for her services and commented:

> What I have discovered in the last four weeks working with Texas teachers, is that they are overwhelmed trying to learn a new online management system and trying to reconcile the fact that they will not be returning to school for the remainder of the school year. Many are concerned for the safety of their students and themselves.

The strain and frustration that initially bubbled up as an impact of COVID-19 began to evolve to a tangle of emotions by educators when Edwina further commented that "many of the teachers that I am virtually mentoring and coaching have expressed anxiety, frustration, and trepidation for the coming weeks that we will be quarantined in our homes."

> As a student, Blaire experienced mental fatigue as she tried to find the energy and focus to finish her semester at university virtually while also feeling "detached from the previous very close-knit work community" (Blaire) when she reflected on her online lectures:

> I started losing an interest in schooling and while my professors were engaging us via Zoom weekly for our lectures, I struggled to pay attention. I opened and closed my school documents so many times just because I couldn't find the mental energy and would immediately start to feel frustrated to the point of tears. (Blaire)

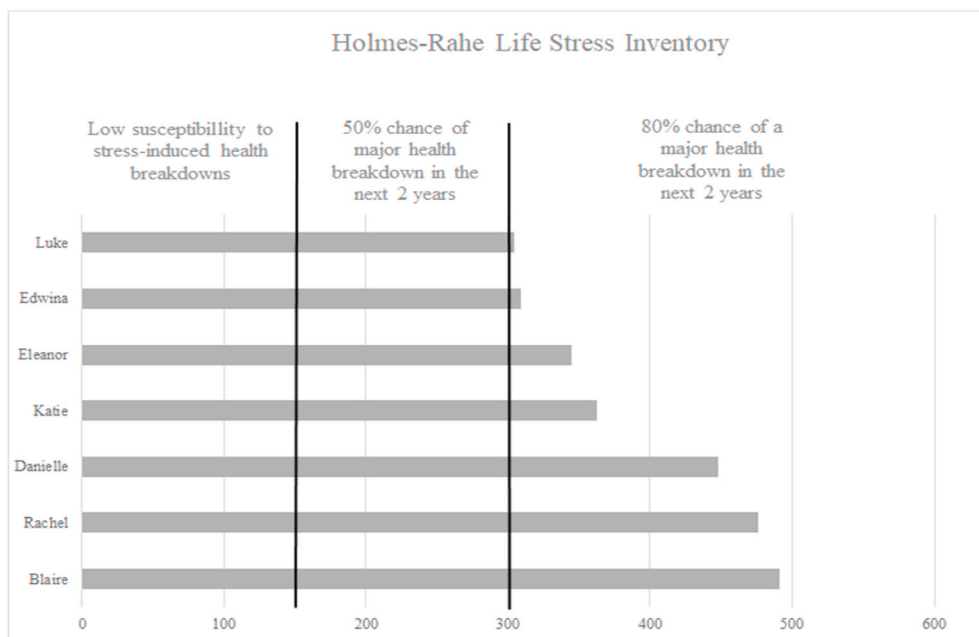As participants faced how to process their thoughts, feelings, and

Fig. 1. Participant scores for the Homes-Rahe statistical prediction model.

Note. The results of the Holmes-Rahe Life Stress Inventory (Holmes and Rahe, 1967) overwhelmingly indicate that these educators are in a time of stress and trauma in their lives. The changes that have happened in the lives of educators during COVID-19 have not been of their own volition and have caused major upheaval in their lives and livelihoods. The data show that all participants scored between 304 for Luke to 491 for Blaire and placed all respondents at an 80% chance of a major health breakdown in the next two years.
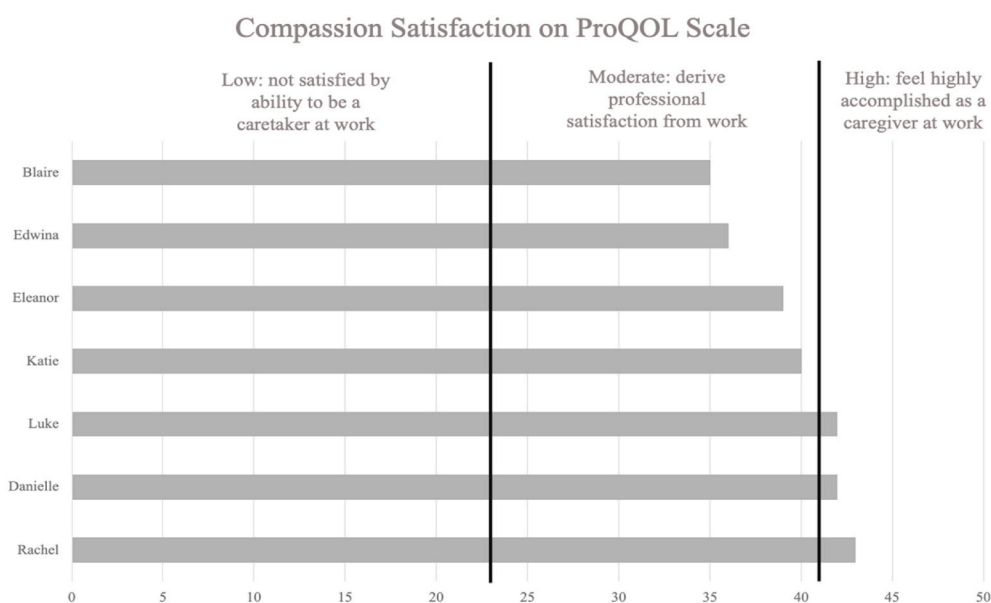

Fig. 2. Participant scores for compassion satisfaction on the ProQOL Scale (Alpha scale reliability 0.88).

Note. The results in Fig. 2 indicate that the educators in this study generally derive professional satisfaction from their work. The position that the participants hold does not seem to have bearing on their compassion satisfaction; interestingly—among the classroom educators of Danielle, Katie, Luke and Blaire—Danielle, Katie, and Luke are clustered together in the higher bracket of compassion satisfaction. Research with more participants would be needed to make a comprehensive assertion on educator compassion satisfaction.

expectations upon them, this was exacerbated for some, like Rachel, a pre-service teacher, a mother, and a university student, who was trying to cope with the impact of COVID-19 across her identities. She reflected on her dueling concerns when she wrote, "my anxiety grew as I considered how this might affect my preservice teaching requirements and my job. Deadlines for work and school started becoming overwhelming. Work emails multiplied exponentially" and turning her thoughts to her children she reflected on her feeling of helplessness that "as a result, my anxiety turned to frustration and I began to worry about how this virus was affecting my children's learning".

The impact of processing COVID-19 for Luke manifested itself differently, however, he reflected on how the shift in schedule was affecting him when he wrote "for me, working from home in sweatpants and a t-shirt felt like I was back writing my dissertation;

isolated, in my head, and working day and night, weekdays and weekends … all jumbled together in a repetitious monotony".

For both Katie and Blaire, the cost of COVID-19 was a laceration on their memory that cut sharply and deeply and will leave a permanent scar. For Katie, the greatest impact was on her first year as an educator and for Blaire the impact was on the end of her university education. In their reflections Katie and Blaire personified the virus, with Katie using the words "stolen," "surviving," and "fighting" to convey her trauma as a stormy sea when she wrote:

COVID-19 has stolen both my precious time with my first class and any sense of finality or accomplishment that comes with surviving the first year of teaching. Instead of worrying about surviving teaching, we are worrying about surviving this virus. We are not all in the same boat, but we are all in the same sea. Some by yacht, some by boat, and some by clinging to whatever floats our way and fighting with all of our might.
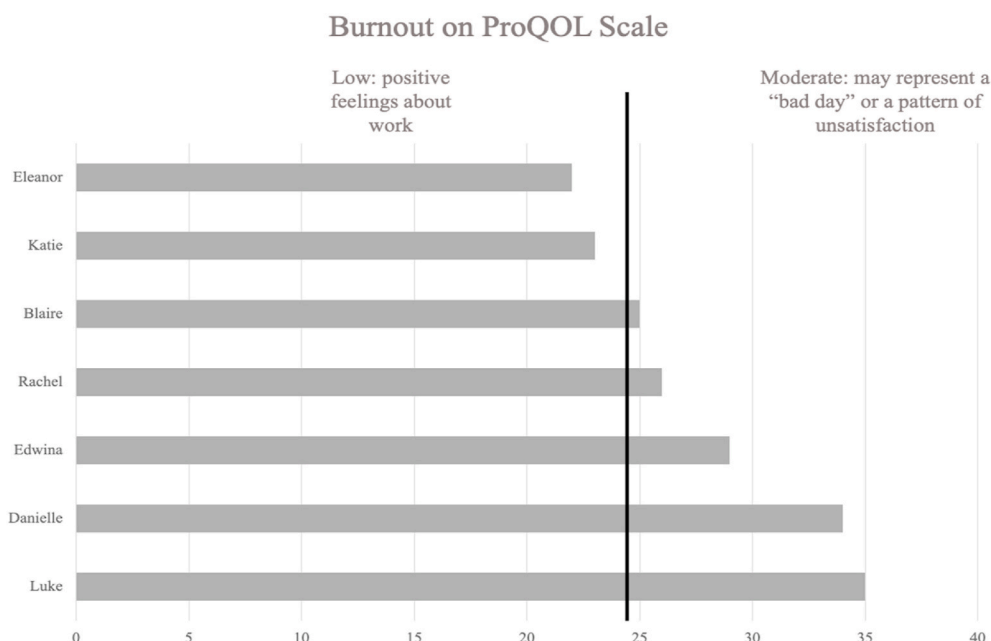
Burnout on ProQOL Scale

Fig. 3. Participant scores for burnout on the ProQOL Scale (Alpha scale reliability 0.75). *Note.* The results of the burnout segment are promising for the impact of COVID-19 on teacher, student, and parent burnout, with the understanding that each respondent holds more than one identity. For example, Rachel is a student, parent, and works full-time in a research center. Five of the seven participants scored moderate with two participants scoring low on burnout, meaning that over 70% of the respondents are potentially exhibiting a pattern of dissatisfaction with their work. As much as COVID-19 has changed the work lives of educators and the learning environment experienced by students, it does not appear to have changed whether they experience feelings of hopelessness about their perception of their ability to make a difference in their lived experience.
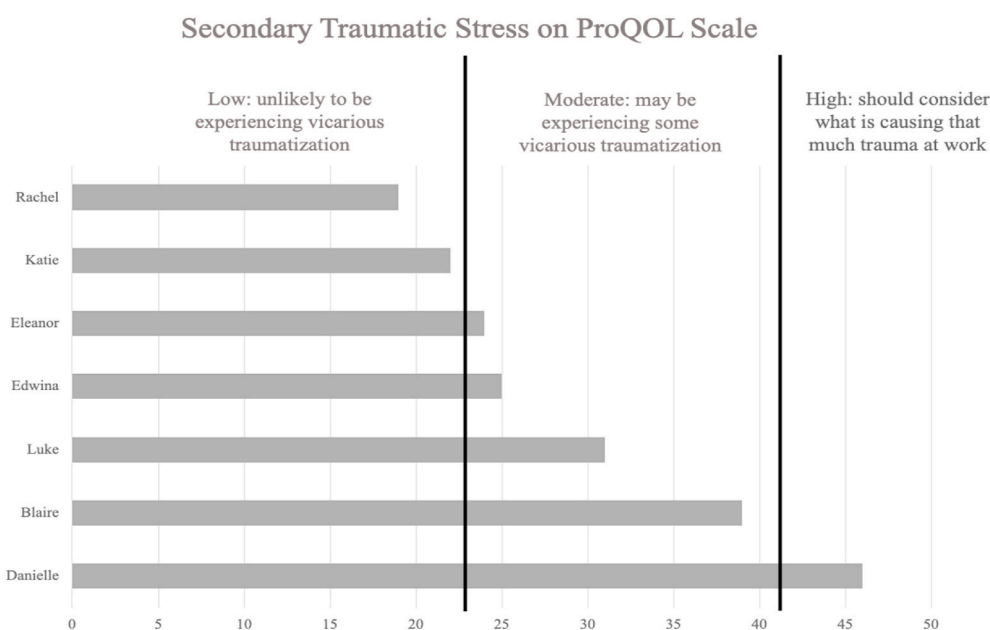
Secondary Traumatic Stress on ProQOL Scale

Fig. 4. Participant scores for secondary traumatic stress on the ProQOL Scale (Alpha scale reliability 0.81).
Note. The results of the STS aspect of ProQOL have the widest range. Two participants scored low, four scored moderate, and one respondent scored high, which shows that the experiences of the participants vary widely in terms of how impactful they are on PTSD-like responses through vicarious traumatization.

Blaire chose to use the words "cheated" and "stolen", and wrestled with the feeling of helplessness that the virus had taken her and her students' educations from them when she wrote:

> I struggle with feeling cheated out of the last month of graduate classes on the campus of my university and that the virus had stolen my education from me. I had always been told growing up that no one can take away your education, but I was left with an overwhelming feeling that the virus was taking not only my education but the education of my students.

Moreover, Eleanor echoed their sentiments when she reflected, "I don't know what my future holds for my first-year teaching, but I don't think it'll be a normal year, and that's really scary because I already

don't know what I'm doing and don't feel confident in my teaching ability."

Processing the impact of COVID-19 was made more complex as respondents experienced feelings related to burnout and trauma and were not able to find a refuge to fully process before the demands of teaching and learning continued.

5.1.3. Coping with COVID-19

COVID-19 has touched the lives of people globally. How people cope, regardless of their role, is of universal interest to enable one to empathize with others' lives. The feeling of helplessness, trauma, and exhaustion continued for Katie when she commented:

I am at a loss as to how to help my students cope and understand this situation when I have not had the energy or time to process it myself, and I do not have the advice from peers that has been gathered from years of practice to help me handle this situation.

The feelings of helplessness and isolation that Katie felt were reflected in Blaire's, with the addition that Blaire was seeking a point of something she could control and, like many experiencing COVID-19 at the university level, sought comfort in focusing on schoolwork when she commented:

I started to spiral downward and pulled away from my family and friends, and I would only look to find solace in schoolwork. However, I was constantly getting upset with my group whenever they would try to add to our projects because I felt like they were taking away my ownership over our assignments. I found myself writing our papers frantically to try to have something established that was mine.

The feelings of coping by focusing on schoolwork to struggling just to manage basic expectations were a phenomenon Luke saw as an instructor when he noted:

I began to see the stress and fatigue on my students' faces. They told me they were distracted, napping more, and their sleeping patterns were all over the place. I think my graduate students were coping to a greater extent than the undergraduates I teach, or they are just better at playing the game of pretending everything is fine when it is not.

Furthermore, for people like Rachel, who are wrestling with multiple identities, the experience of the COVID-19 pandemic was compounded by being a wife, mother, student, and curriculum leader. She commented on how she needed support to cope with the impact COVID-19 when she wrote "as a result of my growing anxieties and difficulties in my personal life, I made an appointment for the following week with the Counseling and Psychological Services (CAPS) office of [the university] to talk to a counselor". The negative feelings of anxiety, burnout, compassion fatigue, depression, fear, helplessness, isolation, shifting roles, and trauma are natural for those on the front lines. Eleanor expressed this sentiment in her reflection. The expectations of educators, students, and parents should be assessed to understand if our expectations are realistic and the cost to their mental health of attempting to continue schooling to this degree is worth the outcomes as they too try to navigate the impact of COVID-19. Eleanor expressed concern for her colleagues when she wrote:

I have friends who are worried about losing their jobs, or worse, are still going to work and are at risk. I have a friend who is a preschool teacher at a daycare, so she still goes in to work every single day and teaches her students. They even bumped her hours up, so now she has to get to school by 6:00 am, and she lives half an hour away, so she leaves her house at 5:30 am.

The concern for others was also highlighted by Danielle in her reflection on her young students' inability to process and cope with COVID-19 while trying to focus on the curriculum:

I feel helpless watching these episodes happen on screen, and I feel as though I can't help them. I don't want to interrupt their teacher who is teaching, but at the same time, I can see a student melting down that they can't see on their screen.

As educators were also feeling the mental fatigue being experienced by students, their ability to support their students, colleagues, and themselves to develop pandemic related coping strategies was hindered. Moreover, the pressure from increased expectations to keep the education system afloat and feeling helpless and detached due to the virtual learning environment, all contributed to educators straining to compartmentalize the empathy they were feeling to address their student's emotional welfare and continue their lessons.

5.1.4. Limitations and further study

This research was limited by the number of participants, demographics, geographic location, and experience in participants' educational fields. To garner a deeper understanding of the effects of the pandemic on education, a multi-site, longitudinal research study would be beneficial. Further research may include data gathered over a longer period and including a wider scope of research questions. Replication of this research in multiple countries would aid a greater understanding of the lived experience of educators at all levels of the education system during the COVID-19 pandemic. Finally, development this research to include the stories of senior administrators, such as superintendents, would provide a greater depth of understanding to this research as a body of knowledge.

6. Conclusion

How pre-service and neophyte educators experience their initial years in their field affects how they perceive their capability in a teacher's role and can influence their future engagement with teaching as a career choice. Understanding how educators are navigating, processing, and coping with the pandemic's impact is critical in understanding the outcome of COVID-19 on the global education system. The field of education already has an attritional issue as Dassa and Derose (2017) stated, "teacher attrition has been a global concern for many decades, with teachers leaving the profession at a higher rate than those entering" (p. 101). In the United States, a third to a half of all new teachers leave the field within the first five years (Dassa & Derose, 2017). This raises deep concern for pre-service educators as their teacher identity emerges and novice educators who are in the impetus of forming their teacher identity and comprehension of their field during a global pandemic.

The impact on the lives of the participants in this research alone is profound both personally and professionally, and there are myriad other narratives to be shared during the pandemic. Moreover, how COVID-19 has shifted educators' lived experiences and the ramifications it will have on career trajectory is captured succinctly by neophyte educators like Katie, who reflected that COVID-19 had "stolen … my precious time with my first class". The residual cost and trauma educators will experience because of COVID-19 is yet to be seen; however, the narratives shared in this research provide a glimpse to their lives which are a "continuing interpretation and reinterpretation of our experience" (Bruner, 1987, p. 12). The trauma inflicted by the pandemic on those engaged in the school milieu has led educators to feelings of burnout, secondary traumatic stress, and compassion fatigue. However, the pandemic has also led to ways the participants of this research are learning to overcome, build emotional resilience, and cope with teaching under pandemic protocols.

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

CRediT authorship contribution statement

Matthew J. Etchells: Conceptualization, Data curation, Formal analysis, Methodology, Project administration, Writing – original draft, Writing – review & editing. **Lillian Brannen:** Data curation, Visualization, Writing – original draft, Writing – review & editing. **Jordan Donop:** Writing – original draft, Writing – review & editing. **Jessica Bielefeldt:** Data curation, Writing – original draft. **Erin A. Singer:** Data curation, Methodology, Writing – original draft, Writing – review & editing. **Erica Moorhead:** Data curation, Writing – original draft, Writing – review & editing. **Tamra Walderon:** Writing – original draft.

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