

The experience of the nurse during the COVID-19 pandemic: A global meta-synthesis in the year of the nurse

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Abstract

Purpose: From its beginnings in China in December of 2019, the novel coronavirus COVID-19 spread and quickly became the center of nursing care and conversation across the globe (WHO, 2020). This meta-ethnographic study was conducted in order to provide the profession of nursing interpretative explanations of a common experience during the care of patients with COVID-19.

Design and method: A literature review focused on the experience of the nurse during the COVID-19 pandemic revealed a total of 13 qualitative studies conducted in China, Spain, Turkey, Iran, Brazil, and the United States. A meta-ethnographic review of these qualitative works, using the method of Noblit and Hare, was then conducted which revealed the experience of the nurse across the globe during the COVID-19 pandemic.

Findings: The review revealed strong similarities between the experiences of the nurse across the 13 studies. Given this reciprocal relationship, translations were constructed and synthesized until four new themes emerged outlining the global experience of the nurse during the COVID-19 pandemic.

Conclusions: Despite the differences between the structures of healthcare and government of the six countries represented in this meta-ethnography, the experience of the nurse emerged into a narrative shared by those represented in this study. As the profession of nursing continues to work through ongoing waves of COVID-19, these results will help guide the resources and training provided to nurses on the frontline of care.

Clinical relevance: Despite great personal risk, nurses across the globe stepped up to the challenge of upholding and improving the health of the world's people during the COVID-19 pandemic. As health policy, education, and system leaders, we must listen to the common experience revealed in this meta-synthesis and respond by providing the resources needed to improve nursing practice and care.

KEYWORDS

coronavirus, COVID-19, experience, global, international, meta-synthesis, nurse

INTRODUCTION

Since late December of 2019 the world has watched what was then an unidentified viral pneumonia spread across the globe (WHO, 2020). The World Health Organization (WHO) reported the outbreak to be caused by a novel coronavirus on January 9, but it was not anticipated by many to be a significant problem at this time. The first COVID-19 cases outside of China were confirmed in Thailand by mid-January, followed by the first case confirmed in the United States (US) on January 21, and more in France a few days later. Each of these original cases were persons who had traveled to the Wuhan region of China, and the general consensus was that those not traveling need not be concerned (WHO, 2020). This sentiment quickly passed as the eyes of the globe grew fixated on the news as confirmed cases of COVID-19 were found in all global regions and the death toll accumulated. The WHO announced that the disease caused by the novel coronavirus would be named COVID-19 on February 11, 2020 and declared it pandemic level on March 11, less than 2.5 months after the first confirmed case (WHO, 2020). While other references to this illness are in the literature, such as 2019-nCoV and SARS-CoV-2, the WHO standardized name of COVID-19 will be utilized throughout this study for consistency purposes.

The effects of COVID-19 have been experienced on every corner of the globe. As of April 29, 2021, according to the Johns Hopkins University, the number of global cases reached 149,903,893 and the number of deaths was 3,155,755 (Johns Hopkins University, 2021). Nurses, as the largest healthcare profession on the globe have been on the frontline of patient care through the COVID-19 pandemic, and are identified by many to be a vulnerable population due to their exposure (ANA, 2020a; WHO, 2017).

Nurses, among other healthcare professionals, have been expressing fear, uncertainty, stress, and hardship during COVID-19 (ANA, 2020b). As those on the frontline, it is essential to study the experiences of nurses during the COVID-19 pandemic in order to best determine how the needs of these essential personnel can be best addressed. As the world works through ongoing waves of COVID-19 cases and deaths, the results of this meta-ethnography need to be used to guide the resources and training provided to nurses on the frontline of COVID-19 care across the globe.

LITERATURE REVIEW

A literature review was conducted in September 2020 regarding the experience of the nurse during the COVID-19 pandemic with the original search criteria including dates of December 2019 through September 2020. This established the body of work to be examined, "the discourse to be addressed," in this meta-ethnography (Noblit & Hare, 1988, p. 24). Searches in CINAHL, PubMed, and Scopus, using the search words COVID, COVID-19, 2019-nCoV, coronavirus, and qualitative revealed a total list of 408 publications which were all published during the year 2020. The researcher realized

that, given the breath of available literature already available, this meta-ethnography could focus exclusively on the experience of the nurse. Three hundred and fifty-nine publications were then eliminated from the list due to the following exclusionary criteria: those publications which focused on a broader range of health professionals, quantitative in nature, duplicates and those focusing on prior coronavirus experiences outside of COVID-19.

It was then found during this next stage of the literature review that, of the remaining 43 articles, 13 focused exclusively on the experience of the RN, were published in English, and were suitable for this meta-ethnography study (Figure 1). It was validating to find, at this stage, that the studies represented a global audience of nurses in the countries of China, Spain, Iran, Turkey, Brazil, and the US. Each of the 13 studies included participants who were involved in the care of COVID-19 patients and were identified as nurses in some way. There is variety within the studies in the specific words used; clinical nurse, nursing professional, nurse, registered nurse, nurse in charge, etc. Given the international audience of this publication, the similarity in role and scope of the nurse participants, and for consistency purposes, *the nurse* will be used throughout this article to identify the participants.

METHODOLOGY

A meta-synthesis approach was chosen in order to answer the research question, "What was the experience of the nurse during the COVID-19 pandemic?" The specific method of Noblit and Hare (1988) was chosen as it outlines a way to look at the qualitative findings of each individual work, but then to take these findings and interpret them into each other. As the profession of nursing seeks to understand the experience of the nurse during this global pandemic it is essential that we take the experiences of the many together across the globe into consideration. This meta-synthesis will establish the greater truth of the experience of the nurse across the globe during the COVID-19 pandemic (Noblit & Hare, 1988; Sandelowski & Barroso, 2007). Of note, the experience of the nurse has been studied during other illness outbreaks such as the H1N1 flu (Corley et al., 2010; Wong et al., 2012), and the HIV epidemic (Sherman, 2000), but at the time of this study there were no other meta-synthesis works found that focused directly on the experience of the nurse working through illness outbreaks or epidemics.

SAMPLE

The 13 qualitative studies available focused on the experience of the nurse and were representative of the journey COVID-19 traveled across the globe. The majority (seven) were conducted in China, where the first case was identified on December 31, 2019 (WHO, 2020). The rest represent other affected countries that have been hit significantly, including Spain, Turkey, Iran, Brazil (2), and the United States.

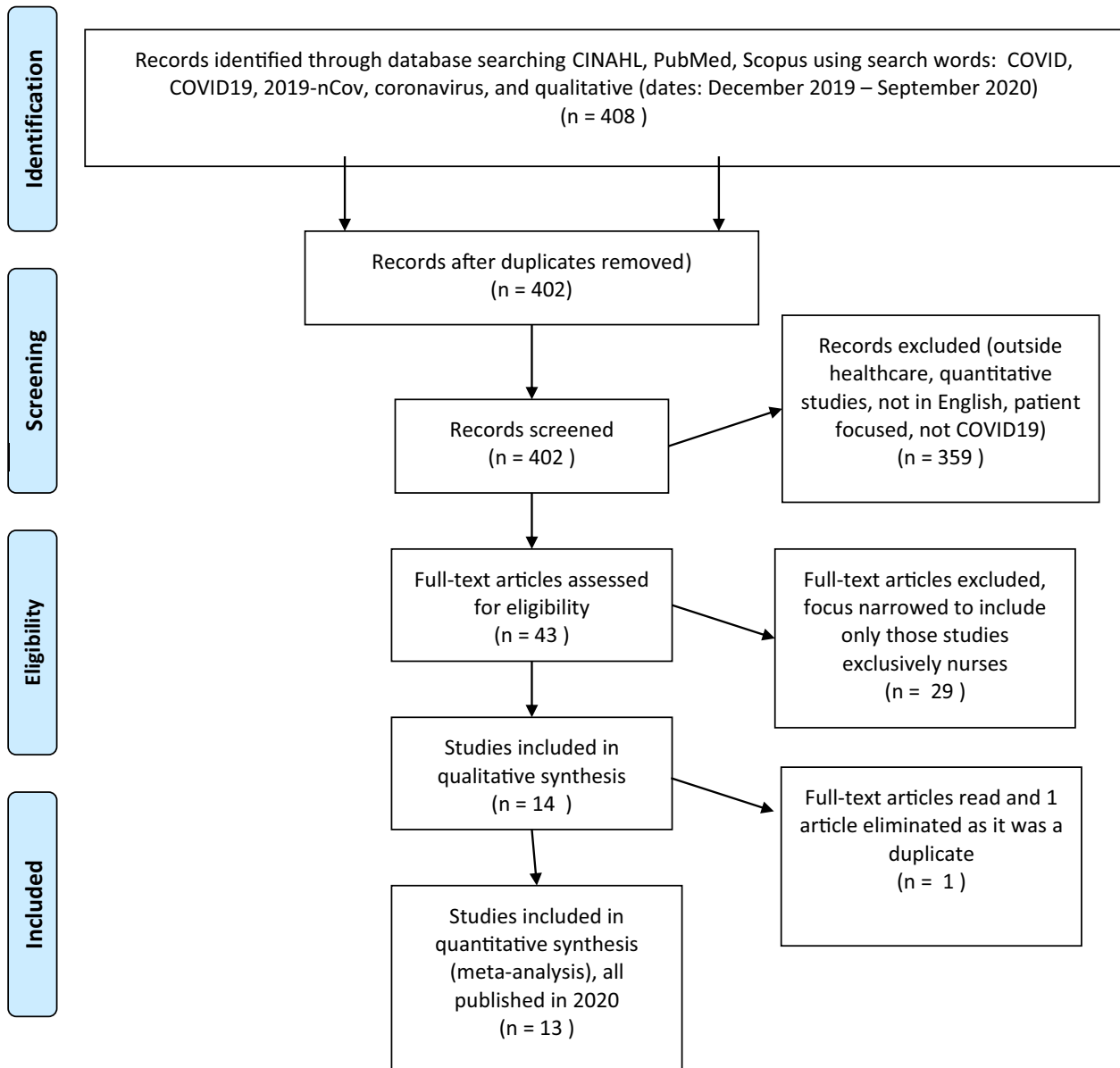


FIGURE 1 PRISMA (2009) flow diagram: The Experience of the Nurse During the COVID-19 Pandemic

Age, experience, and gender were reported differently throughout the studies, therefore, comparisons cannot be reported using these characteristics. Of note, the studies had a larger number of females in relation to males in the population of nurses.

Of the 13 studies within the sample three did not specify a unique qualitative approach. Generic words such as qualitative, descriptive, exploratory, standard, and phenomenological were used without reference to a specific technique (Jia et al., 2020; Liu et al., 2020; Schroeder et al., 2020). Of the remaining nine studies, five utilized Colaizzi's seven-step phenomenological qualitative research method (Gao et al., 2020; Garcia-Martin et al., 2020; Kackin et al., 2020; Sun et al., 2020; Zhang et al., 2020). The studies by Fan et al., (2020) and Sadati et al. (2020) were based on the Braun-Clarke Thematic Analysis Method and the study by Geremia et al. was based on the

Discourse of the Collective (DCS) technique. The study by Tan et al. (2020) identified their qualitative method as Heidegger's hermeneutic phenomenological approach and the study by Forte and Pires de Pires (2020) identified their method as the descriptive, phenomenological method of Giorgi from psychology.

DATA ANALYSIS

Noblit and Hare's (1988) seven step approach for synthesizing the findings of qualitative studies was utilized in this meta-ethnography on the experience of the nurse during the COVID-19 pandemic. As outlined above in the introduction, the phenomenon of the experience of the nurse during the COVID-19 pandemic was chosen (step 1

of Noblit & Hare, 1988) due to its global relevance on the profession of nursing. The COVID-19 pandemic has impacted every area of the world, and nurses have been on the frontline of the public health response and patient care. It is essential to the health of people across the globe, including nurses, that the nurses' experience of COVID-19 be defined, so that specific and relevant interventions can be put into place addressing the needs of both groups.

Thirteen qualitative studies were identified (step 2 of Noblit & Hare, 1988). The inclusion criteria were: qualitative studies (or mixed methods studies where the qualitative data was presented autonomously) that focused on the experience of the nurse during the COVID-19 pandemic. The exclusion criteria were: studies not available in English, those with broader healthcare professional focuses (such as doctors, pharmacists, etc.) and those with a focus on coronavirus strands other than the novel COVID-19.

12 of the 13 were qualitative studies interviewing individual nurses who were involved in the care of patients diagnosed with COVID-19 during the pandemic. The remaining study by Forte and Pires de Pires (2020), utilized social media data posted by nurses on Twitter and Instagram to qualitatively analyze the experience of the nurse during COVID-19.

Each of the articles was read over in detail by the researcher (step 3 of Noblit & Hare, 1988) on multiple occasions over the course of 13 weeks. Taking the time to slowly read the studies gave the researcher the opportunity to being to synthesize the studies even before the formal process began. The researcher then uploaded each of the articles into Atlas TI, as this was the qualitative research tool chosen in order to assist in analyzing the studies. Codes were identified in order to sort the demographic and methodological data contained in the studies: Age, gender, length of experience, and role. Researcher codes were assigned: Country, qualitative method utilized, data collection methods, research question, metaphors, and relevance for future use.

Data coding was completed in Atlas TI where key metaphors, phrases, and concepts were identified. In addition, these key aspects were also printed with their corresponding study identification and then physically sorted by the researcher into initial categories. It was determined during this process that the initial categories that emerged were similar in nature across the studies. Using the language of Noblit and Hare, these relationships were identified as reciprocal, or complimentary and similar, in nature (step 4 of Noblit & Hare, 1988). Charts were created that outlined the demographic data (Table 1), as well as the specific qualitative methodological data (Table 2), of each of the studies.

Given the reciprocal, or complimentary and similar, relationship between the studies, translations were constructed using the method outlined by Noblit and Hare (step 5, 1988). The key metaphors, phrases, and concepts initially identified and categorized within step 4 of the Noblit and Hare process were then continuously and systematically compared (or translated, using the language of the method) within and across accounts, utilizing the printed materials.

An additional layer of synthesis was conducted and resulted in finalized interpretations and conceptual understanding (step 6 of

Noblit & Hare, 1988). Finally, the resulting interpretations were presented as a new story in four themes, outlining the global experience of the nurse during the COVID-19 pandemic which is expressed as follows and on the attached table (step 7 of Noblit & Hare, 1988) (Table 3).

FINDINGS

Theme 1: Fear and moral conflict: Unprepared and scared for safety

Fear and Moral Conflict: Unprepared and scared for safety is a theme that appeared in all 13 of the qualitative studies in this meta-ethnography. The studies uncovered fear related to infection risk. The nurses saw healthcare workers getting sick and dying. They were fearful for their own safety and the safety of those with whom they had regular contact in the midst of an illness without standardized treatments and training (Fan et al., 2020; Forte & Pires de Pires, 2020; Gao et al., 2020; Garcia-Martin et al., 2020; Geremia et al., 2020; Jia et al., 2020; Kackin et al., 2020; Liu et al., 2020; Sadati et al., 2020; Schroeder et al., 2020; Sun et al., 2020; Tan et al., 2020; Zhang et al., 2020).

For me, my greatest fear was infecting my family and loved ones. Since I knew I would have had to work alongside patients with coronavirus, my family left our home. I didn't want to bring something home, which may not have an effect on me, but it may have on them (Garcia-Martin, et al., 2020, p. 8).

All of the 13 studies revealed themes of fear related to a lack of consistency in the availability of personal protective equipment (PPE) and training for the job at hand (Fan et al., 2020; Forte & Pires de Pires, 2020; Gao et al., 2020; Garcia-Martin et al., 2020; Geremia et al., 2020; Jia et al., 2020; Kackin et al., 2020; Liu et al., 2020; Sadati et al., 2020; Schroeder et al., 2020; Sun et al., 2020; Tan et al., 2020; Zhang et al., 2020).

There was an underlining theme of moral conflict as the nurses worked through lack of training, resources, and preparedness and compared these times to their usual state of patient care. Fourie (2015) defines moral conflict as, "any situation where normative factors clash and require incompatible action" (p. 94). Lack of equipment and supplies, as well as a lack of education and knowledge, left the nurses feeling morally conflicted about the inadequacy of the patient care. Geremia et al., observed "weaknesses related to the compliance with rules and norms, mainly, regarding contact precautions, hand washing, use of PPE, and rationalization of the use of materials" (p. 5). Another nurse described lack of knowledge and a clashing of normative factors like this:

I have worked for more than 10 years and nursed many critically ill patients, but this was the first time I had contact with patients in this kind of public health emergency and I lacked the knowledge to deal with this infectious disease. (Liu et al., 2020, p. 761)

TABLE 1 Demographic characteristics of study participants (Studies listed in alphabetical order by first author)

Authors (year)	Country	Number and type of participants	Age of participants	Years of nursing experience	Gender
Fan et al. (2020) *Note for this study: <i>Transdisciplinary Nurse</i> is defined as a nurse working outside of established area of expertise	China	Transdisciplinary nurses = 25 ("Transdisciplinary nurses" - defined by the study as those without infectious disease experience)	Transdisciplinary nurse (20-25 years) = 8 (26-30 years) = 9 (31-35 years) = 5 (36-40 years) = 2 (>40 years) = 1	Transdisciplinary nurse (1-5 years) = 7 (6-10 years) = 11 (11-15 years) = 4 (>15 years) = 3	Transdisciplinary nurses 4 Male 21 Female
Forte and Pires de Pires (2020)	Brazil	295 social media publications by nurses (101 - Twitter, 194 - Instagram)	-	-	-
Gao et al. (2020)	China	14 nurses who cared for COVID-19 patients in isolation wards	24-43 years old	2-13 years	-
García-Martin et al. (2020)	Spain	16 recent nursing graduates working in emergency departments	22-34 years old	≤ 6 months	6 Male 10 Female
Geremia et al. (2020)	Brazil	12 nurse managers who worked with COVID-19 patients	34-59 years old	10-30 years	1 Male 11 Female
Jia et al. (2020)	China	18 nurses who worked with COVID-19 patients on designated units	(20-29 years) = 7 (30-39 years) = 7 (40-49 years) = 4	(<5 years) = 3 (5-9 years) = 6 (10-19 years) = 6 (≥20 years) = 3	5 Male 13 Female
Kackin et al. (2020)	Turkey	10 nurses who cared for patients diagnosed with COVID-19	25-40 years old	-	2 Male 8 Female
Liu et al. (2020)	China	15 front-line nurses caring for COVID-19 patients	Mean age = 27.83 years old	Mean years in practice = 7.3 years	5 Male 10 Female
Sadati et al. (2020)	Iran	24 nurses who worked with COVID-19 patients	-	-	-
Schroeder et al. (2020)	United States	21 nurses who cared for COVID-19 patients	Mean age = 33.5 years old	Mean years in practice = 7.9 years	2 Male 19 Female
Sun et al. (2020)	China	20 nurses who cared for COVID-19 patients	25-49 years old	Mean years in practice = 5.83	3 male 17 female
Tan et al. (2020)	China	30 first-line clinical nurses who cared for COVID-19 patients	Mean age = 31.23 years old	2-25 years	-
Zhang et al. (2020)	China	23 nurses who worked in the epi-center of the COVID-19 pandemic	Mean age = 31.5 years old	Mean years in practice = 7.58 years	5 Male 18 Female

TABLE 2 Methodological characteristics of the qualitative studies (Studies listed in alphabetical order by first author)

Authors (year)	Qualitative method	Study purpose/Research question as reported by the authors
Fan et al. (2020)	The Braun Clarke Thematic Analysis Method	To investigate the experiences, vocational issues, and psychological stresses of front-line nurses in the process of fighting against the COVID-19 outbreak
Forte and Pires de Pires (2020)	Qualitative, descriptive, and exploratory study using the psychological method of Giorgi	To know and analyze the nursing appeals on social media during the coronavirus pandemic
Gao et al. (2020)	Phenomenological research, based on Colaizzi's seven-step method of data analysis	To explore nurses' experiences regarding shift patterns while providing front-line care for COVID-19 patients in isolation wards of hospitals in Shanghai and Wuhan during the novel coronavirus pandemic
Garcia-Martin et al. (2020)	Heidegger's phenomenological hermeneutical approach, based on Colaizzi's seven-step method of data analysis	To explore the experiences and perceptions of recent nursing graduates working in Emergency Departments during the COVID-19 outbreak
Geremia et al. (2020)	Discourse of the collective subject (DCS) technique	To analyze the main challenges of nursing in facing Coronavirus Disease-19 under the perspective of nurse managers in the west macro-region of Santa Catarina
Jia et al. (2020)	Descriptive, qualitative study where the research data were analyzed using the content analysis method	To examine the ethical challenges encountered by nurses caring for patients with the novel coronavirus pneumonia (COVID-19) and to provide nurses with suggestions and support regarding promotion of their mental health
Kackin et al. (2020)	Descriptive, phenomenological approach that analyzed the data using Colaizzi's seven-step method	The objective of this study is to determine the experiences and psychosocial problems of nurses caring for patients diagnosed with COVID-19 in Turkey
Liu et al. (2020)	Standard qualitative methods	To explore the experiences of front-line nurses combating the coronavirus disease-2019 epidemic
Sadati et al. (2020)	The Braun Clarke Thematic Analysis Method	This study aimed to investigate the nurses' perceptions and experiences of COVID-19 outbreak in Iran
Schroeder et al. (2020)	Qualitative descriptive study	The aim of this study was to explore the experience of RNs caring for patients with COVID-19 at an urban academic medical center during early stages of the pandemic
Sun et al. (2020)	Descriptive, phenomenological approach that analyzed the data using Colaizzi's seven-step method	To explore the psychology of nurses caring for COVID-19 patient
Tan et al. (2020)	Heidegger's hermeneutic phenomenological approach	To explore the work experience of clinical first-line nurses treating patients with coronavirus disease 2019 (COVID-19)
Zhang et al. (2020)	Descriptive, phenomenological approach that analyzed the data using Colaizzi's seven-step method	To identify the psychological change process of the registered nurses who worked in the epicenter of the COVID-19 outbreak

This nurse had previous expertise, but now was unable to deal with this new disease process, leaving her in a place of moral conflict.

In Tan et al., (2020), a nurse states, "I tell the head nurse I would like to go to the frontline and that I really want to help the patients. But when I go there ... I have a sense of being ineffective" (p. 1385).

In addition, the weight of their work seemed even heavier as other professions managed to create work-arounds in order to prevent exposure, but the nurses continued to be at the bedside

incurring the greatest risk (Forte & Pires de Pires, 2020; Jia et al., 2020; Schroeder et al., 2020). Patient care responsibilities were not fair or equitable for many of the nurses in this study, leaving nurses feeling morally conflicted about their responsibilities in contrast with those of other healthcare professionals.

The first week that COVID hit the hospital and there was like so much up in the air about proper PPE.

TABLE 3 Meta-synthesis themes (Studies listed in alphabetical order by first author)

Authors (year)	Fear and moral conflict: Unprepared and scared for safety	Duty: A sense of calling and obligation	Emotional and physical side effects: Exhaustion	Growth: A renewed sense of professional identity and calling
Fan et al. (2020)	<ul style="list-style-type: none"> Scared of personal infection Lack of training and consistency Lack of standardization of isolation control and cleaning 	<ul style="list-style-type: none"> Promoting "the Nightingale spirit" Responsibility and obligation Go to the frontline where the need is 	<ul style="list-style-type: none"> Intense working pressure and physical fatigue Anxiety, Grief, Pain, Insomnia, stress Powerlessness 	—
Forte and Pires de Pires (2020)	<ul style="list-style-type: none"> Unknown exposure and infection Scared of personal infection Lack of PPE and supplies #nothingnewinthe frontline 	<ul style="list-style-type: none"> Caring for patients in the midst of unknown illness Frontline that cannot go back #nowwearheros 	<ul style="list-style-type: none"> Tiredness, pressure, worry 	<ul style="list-style-type: none"> Advocating expertise into the community for the safety of the public #stayathome
Gao et al. (2020)	<ul style="list-style-type: none"> Fear of infection Lack of plan, training, consistency, communication, organization 	<ul style="list-style-type: none"> Nurses volunteered to work on the frontline Obligation to preserve PPE despite discomfort 	<ul style="list-style-type: none"> Physical discomfort from wearing PPE Inhumane shift patterns Anxiety 	
García-Martin et al. (2020)	<ul style="list-style-type: none"> Lack of training, support, consistency and preparedness Complexity of COVID-19 Fear of becoming infected themselves or infecting someone they love 		<ul style="list-style-type: none"> Guilt/feeling like a burden to more experienced nurses Anxiety, insomnia Dehumanized by the organization 	<ul style="list-style-type: none"> Improved communication between professionals Felt they were part of a team
Geremia et al. (2020)	<ul style="list-style-type: none"> Weaknesses and capacity in the healthcare system High lethality in nurses Lack of compliance with rules/regulations, hand washing and PPE use Lack of PPE and adequate personnel 	<ul style="list-style-type: none"> The legacy of Florence Nightingale to contemporary nursing practice Respond despite the risk 	<ul style="list-style-type: none"> Excessive workload and low wages Poor working condition Lack of professional recognition for nurses 	<ul style="list-style-type: none"> Identified strategies for strengthening the system and nursing during the pandemic
Jia et al. (2020)	<ul style="list-style-type: none"> Overwhelmed by personal risk of infection Limited medical resources, lack of job competency, emotional support for patients, expertise and training in new kind of nursing 	<ul style="list-style-type: none"> Felt they needed to care for their patients, despite the risk While other professions chose to stay further away 	<ul style="list-style-type: none"> Psychologically overwhelming Nurses being asked to step in for doctors/unequal exposure 	<ul style="list-style-type: none"> Improvement of nursing skills Scientific research experience, taking control and establishing nursing interventions Management and clinical coordination skills

TABLE 3 (Continued)

Authors (year)	Fear and moral conflict: Unprepared and scared for safety	Duty: A sense of calling and obligation	Emotional and physical side effects: Exhaustion	Growth: A renewed sense of professional identity and calling
Kackin et al. (2020)	<ul style="list-style-type: none"> • Fear as Healthcare workers getting sick and dying • Unclear treatment plans • Lack of equipment • Decreased quality of patient care 	<ul style="list-style-type: none"> • Part of the profession, dismissing the risk • Normalization of the role of nursing, this is what we do • Will to keep on doing it despite the working conditions and fatigue 	<ul style="list-style-type: none"> • Increase and unfairness in working hours and conditions • Social isolation & stigma • Lack of appreciation for work being done • Anxiety, depression, sad, stressed, tired, obsession with personal risk 	<ul style="list-style-type: none"> • Growth in resource management • Learned new personal coping skills
Liu et al. (2020)	<ul style="list-style-type: none"> • Fear of infection in themselves and family • New dangers • Lack of understanding of disease process and risk • Changing PPE expectations and availability • Learning new skills quickly 	<ul style="list-style-type: none"> • Strong sense of duty and identity as a healthcare provider • Duty to provide healthcare services regardless of the risk • Responsibility and mission 	<ul style="list-style-type: none"> • Exhaustion by heavy workloads and wearing PPE • Stress, insomnia • Guilt – not wanting to waste PPE to use the bathroom or eat 	<ul style="list-style-type: none"> • Pride in their work and recognition from others for work well done • Recognized need for improvement in infectious disease reporting system and public health emergency management system
Sadati et al. (2020)	<ul style="list-style-type: none"> • Worst perceived risk • Concern over risk to family • Lack of experience and skill, Protective equipment, Scientific evidence to treat disease and prevent infection • Unknown risks • Unexpected situations 	<ul style="list-style-type: none"> • Sacrificial commitment • Highest professional commitment despite the risk • Families encouraging them to continue in the work despite the risk 	<ul style="list-style-type: none"> • Anxiety • Social stigma, people scared to be around them • Defected preparedness 	
Schroeder et al. (2020)	<ul style="list-style-type: none"> • Fear of contracting COVID themselves or giving it to family and friends • Frequently changing and conflicting policies, procedures, expectations and workflows • Other professions avoiding direct-care, leaving the nurse at the bedside 	<ul style="list-style-type: none"> • A "sense of duty" to care for patients with COVID-19 	<ul style="list-style-type: none"> • Frustrated by leadership and changing expectations • Lack of psychosocial and emotional support 	<ul style="list-style-type: none"> • Doing the best we can • We are all in this together • Increased teamwork
Sun et al. (2020)	<ul style="list-style-type: none"> • Fear of the condition and the unknowns • Fear of impact on their families and risk for infection because of their work • Patients unmet psychological needs 	<ul style="list-style-type: none"> • Professional responsibility prompted participation in caring for COVID patients • Many volunteered to assist 	<ul style="list-style-type: none"> • High-Intensity and increased workload • Fatigue and discomfort related to unmet physiological and psychological needs in order to preserve PPE • Fatigue, discomfort, helplessness, anxiety 	<ul style="list-style-type: none"> • New coping skills • Encouragement of colleagues • Growth under pressure • Increased affection and gratefulness • Development of professional responsibility

(Continues)

TABLE 3 (Continued)

Authors (year)	Fear and moral conflict: Unprepared and scared for safety	Duty: A sense of calling and obligation	Emotional and physical side effects: Exhaustion	Growth: A renewed sense of professional identity and calling
Tan et al. (2020)	<ul style="list-style-type: none"> • Fear and uncertainty with environment & disease • Lack of teaching, understanding, PPE, healthcare workers, counseling, scheduling 	<ul style="list-style-type: none"> • Responsibility – empathy and compassion toward patients 	<ul style="list-style-type: none"> • Heavy workload and pressure, tired, overworked, anxiety • Physically uncomfortable with the PPE • Exhaustion • Anxiety, depression, helplessness, frustration, self-blame 	<ul style="list-style-type: none"> • Recognized the needs and impact of clinical first-line work • Impact of clinical first-line work on professional attitudes
Zhang et al. (2020)	<ul style="list-style-type: none"> • Healthcare workers being infected and dying • Lack of understanding of disease & treatment plans • Fear of being infected • Sharp increase in cases 	<ul style="list-style-type: none"> • Duty bound • Step forward without hesitation/excited and proud • Professional mission • Commitment to care 	<ul style="list-style-type: none"> • Emotional exhaustion and irritability, physical discomfort from PPE • Physical discomfort exacerbated the psychological distress • Anxiety and loneliness, frustration 	<ul style="list-style-type: none"> • Uncovered original purpose of commitment to care • Energy renewal and personal accomplishment • Anti-epidemic heroes, meaningful and valuable to health of the people

I knew physicians that didn't even go in the room because if they didn't have N95 masks available to them, they would not enter the room. That was just another thing for nurses to be like... 'if your doctors aren't going to the room, why would you expect us nurses to want to go into the room?' (Schroeder et al., 2020)

Nurses who were accustomed to providing comprehensive and quality care identified a clash between their usual and expected practice, and that which was available during the pandemic. Without adequate knowledge and resources they were left in a state of moral conflict as they continued to provide direct patient care, while they recognized the level of care was not to the same standard as their usual practice.

Theme 2: Duty: A sense of calling and obligation

The second theme of Duty: A sense of calling and obligation was identified in 12 of the 13 studies; the Garcia-Martin study did not address duty (2020). Nurses, despite their fear and risk for personal safety, acknowledged a sense of responsibility to care for patients on the frontline of the COVID-19 pandemic, and often volunteered to be there. They had the highest professional commitment and a strong sense of duty and identity as a healthcare provider.

From the first day I became a nurse, I was deeply conscious of my responsibility to heal the wounded and rescue the dying. In the face of sudden novel coronaviruses, the lives and health of the world's population are under serious threat. As an angel in white, I have to summon 'the Nightingale spirit' and go to the front lines where I am most needed to treat patients using professional knowledge and skills. (Fan et al., 2020, p. 12480)

The nurses stepped forward, without hesitation, and were excited and proud to give care to the COVID-19 patients. Each of these 12 studies revealed an ethical commitment as a healthcare provider to caring for COVID-19 patients despite the risk.

Let's say it is work ethics ... I know this is the job I have to do ... That's what keeps me going. After all, I have been trained for this ... we are on the field in this process ... who will take care of the patients when we retreat ... (Kackin et al., 2020, p. 7)

There was a recognition among the nurses that treating those affected by the COVID-19 pandemic was a mission beyond themselves. They were committed to fight the virus as a part of the greater good of their communities.

Now is the Spring Festival reunion, we have only one mission, which is to fight the virus to the end, so that more families can be reunited. It was a unique sense of mission that belonged to the healthcare provider. (Liu et al., 2020, p. 761)

Theme 3: Mental and physical side effects: Exhaustion

Each of the 13 qualitative studies within this meta-ethnography revealed themes of exhaustion, which stemmed from a long list of mental and physical complications. The increase in workload, expectations and the inconsistency of schedules and patient care assignments lead to physical symptoms such as pain, insomnia, frustration, helplessness, and anxiety, as well as mental side effects such as guilt, social isolation, and an overall feeling of helplessness. The required donning and doffing of PPE lead to fatigue, great discomfort, and a neglect of their own physical needs. "I feel uncomfortable. I wear the protective gear all the time. And I have to wear diapers. I try to adapt to it both physically and mentally" (Gao et al., 2020, p. 14).

When wearing protective clothing for a long time, I have headaches, chest tightness, and palpitations. The surgical mask strap pinches my ears. When I take off my protective clothing, my whole body is sweaty and I feel like I'm going to collapse. (Sun et al., 2020, p. 595)

In addition to their own discomfort, the nurses were subject to the suffering of their patients every day. There was intense guilt and helplessness related to their inability to meet patients' needs, another sign of mental exhaustion. "An elderly patient was suffering from wheezing, and it became increasingly severe. None of the treatments could ease her symptoms. She said "help" to me trembling, and I burst into tears" (Jia et al., 2020, p. 7).

Social isolation from their loved ones, in combination with feeling stigmatized by and isolated from their communities, added to the mental exhaustion in the nurses.

Two of our colleagues were going to the hospital. One of them got in a taxi and the driver asked him where she was going. When she told him to get her to the hospital, he asked her to get off. The same happened to another colleague when a driver, after knowing her destination –our hospital- did not allow her to get in the taxi. (Sadati, et al., 2020, p. 5)

My friend came to me really demoralized ... He/she did not tell anyone about his/her visit ... When he/she returned, he/she acted as if he/she had not visited me ... This situation wears me down emotionally. (Kackin et al., 2020, p. 163)

Theme 4: Growth: A renewed sense of professional identity and calling

Within ten of the 13 studies the last theme of growth and a renewed sense of professional identity and calling was discovered. Nurses discussed the lessons learned. The lessons were personal and involved an increase of gratefulness, pride, coping mechanisms, teamwork, and specific nursing skills.

The feeling that I had was really proud, proud that we are here to take care of the patients, we are being given an opportunity to take care of these very sick patients. And the patients are scared, they're scared, so it's our job to take care of them, you know, to our level best. And so, I'm very proud to be able to take care of the patients. (Schroeder et al., 2020, p. 5)

There was corporate growth noted as well in areas such as nursing research and the strengthening of public health systems. Forte & Pires de Pires, 2020, described how nurses used their voice and position to advocate for the safety of the communities with their #stayathome Twitter campaign. Geremia et al. (2020), identified strategies for strengthening their healthcare system and nursing interventions in the future.

This theme is best summarized by a quote from Zhang et al. (2020): "Their energy was renewed by recovering the original purpose of their commitment to care, reevaluating the value of the nursing profession, taking pride in their contributions, and having an elevated sense of personal accomplishment" (p. 528).

DISCUSSION

Nurses have been on the frontline of COVID-19 patient care since its beginnings as an unidentified viral pneumonia in December of 2019, through to the present. The journey that this pandemic took across the globe is represented in these 13 studies as they include the countries of China, Iran, Spain, Turkey, Brazil, and the United States. Using the meta-ethnographic method outlined by Noblit and Hare (1988), these qualitative studies were identified as reciprocal in nature, and their metaphors were synthesized into four new themes that represent the experience of the nurse during the COVID-19 pandemic across the globe (1988).

China, Turkey, Iran, Spain, Brazil, The United States: These are all very different places in the world. Despite the differences, it was remarkable the similarities this meta-ethnography revealed in the identified themes. Before the world knew of COVID-19, The World Health Organization (WHO) declared 2020 to be The Year of the Nurse and Midwife, in an effort to rally the globe behind the role and need of nurses in healthcare (WHO, 2020b). Little did the profession of nursing know at the time, that the Year of the Nurse would reveal to the world, yet again, what the role of professional nursing does to

uphold the healthcare of the most vulnerable, even in the midst of great personal risk.

Nurses, as the largest healthcare profession on the globe have been on the frontline of patient care through the COVID-19 pandemic, and are called out by many to be a vulnerable population due to their exposure (ANA, 2020a; WHO, 2017). Now, what are the implications for practice?

Implications – Reflections on each theme

Nurses revealed fear throughout these 13 studies. The fear was related to their risk of infection, lack of preparedness in the areas of education, training, and PPE. Nursing leaders, across health systems and universities, need to provide the education necessary to prepare nurses to care for those patients with COVID-19. Additionally, they must advocate for the allocation of proper PPE for those caring for these patients.

Nurse leaders also need to work with other healthcare professionals in order to collaborate on fair and equitable patient care responsibilities. Nurses have felt, since the beginning of the pandemic, as though they are a dispensable resource and can be sent to the frontline of patient care despite the risk. Studies revealed nurses providing direct patient care at the bedside of those with COVID-19 while other healthcare professionals purposefully stayed away, even asking the nurse to go in for them at times (Forte & Pires de Pires, 2020; Jia et al., 2020; Schroeder et al., 2020). Nurse leaders need to work with other professions (medicine, pharmacy, physical therapy, etc.) in order to create equal and fair work distribution. Academic and healthcare leadership needs to advocate for the presence of all healthcare professionals at the bedside and intervene when some are resistant.

Within the profession of nursing there is a sense of calling and duty. Throughout these studies this underlying sense of duty to serve those most vulnerable and in need came forward. All should be encouraged by this! Nurses really do look at the world differently than other professionals. Nurses know the risk, they see the danger, and they continue right into the space where their skills meet the need.

Especially now, as the waves of COVID-19 continue, nurses need to be affirmed and rewarded for their sense of duty, calling, and action. Healthcare organizations need to take the time to publicly thank and affirm their nursing staff for their contribution to patient care during COVID-19. Universities need to bring front-line COVID-19 nursing staff into the teaching setting in order to share the knowledge and experiences with those still in training.

Physical and mental exhaustion have now been identified among nurses working during the COVID-19 pandemic. Many of the processes that lead to exhaustion in the first round of COVID-19 were as a result of the unknowns. Now that there is more known, there needs to be action taken to prevent the exhaustion experienced by nurses.

Nurse leaders in healthcare systems need to create and implement realistic schedules and patient care assignments. These assignments and schedules need to incorporate the need for PPE and appropriate breaks in order to tend to personal care and needs. Healthcare organizations need to provide mental health services for staff, including counseling, employee assistance programs, and chaplaincy. The work is hard, and the resources need to be provided in order to avoid exhaustion.

When the WHO declared 2020 the Year of the Nurse, COVID-19 was not yet on the radar. An unidentified virus shook a small community in China and then, while the world watched, it spread faster than anything ever seen before. Nurses provided frontline care from its beginnings in China, across all nations, and in all settings. These 13 studies revealed the reciprocal nature of this work and the fact that even through fear, nurses responded out of a sense of duty and obligation. They worked through exhaustion and they grew in their professional identity and calling. The world witnessed professional nurses working in the most difficult of places and, in this, nursing showed the world that 2020 was truly the Year of the Nurse.

Recommendations for future research

As the COVID-19 pandemic has continued there are more qualitative studies available for consideration in a meta-synthesis study. The next steps in research could include further meta-synthesis work on the experience of the nurse working during the COVID-19 pandemic, followed by specific research focused on interventions related to improving the health of both nurses and our global population.

Limitations

The original work was conducted in the fall of 2020 and only included available qualitative research up to this time frame. It also did not include a search using Google Scholar, or the viral term SARS-CoV-2. It would be beneficial to the future research indicated above to open up the research using this additional search term and database. Additionally, given the work of the researcher as a Nurse Educator on an inpatient COVID hospital unit, it is difficult to discern the level of bias introduced by this intimate connection to the research. This researcher was greatly affected by the work required during the COVID-19 pandemic and hope that the themes revealed in this study will prove to be a catalyst in the improvement of readiness for nurses in the future.

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CLINICAL RESOURCES

- American Nurses Association COVID-19 Resource Center. <https://www.nursingworld.org/practice-policy/work-environment/health-safety/disaster-preparedness/coronavirus/>
- Centers for Disease Control COVID-19 Resources. <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
- Johns Hopkins Coronavirus Resource Center. <https://coronavirus.jhu.edu/>
- International Council of Nurses Covid-19 & International Year of the Nurse and the Midwife. <https://www.2020yearofthenurse.org/>

CONFLICT OF INTEREST

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

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