

Marvin Alfaro, Melagros Jalijali

# Nurses' Experiences of Caring for COVID-19 Patients

A Descriptive Literature Review

Metropolia University of Applied Sciences Bachelor of Health Care Degree Program in Nursing Bachelor's Thesis 18 November 2022

Authors	Marvin Alfaro, Melagros Jalijali			
Title	Nurses' Experiences of Caring for COVID-19 Patients			
Number of Pages	38 pages + 12 appendices			
Degree	Bachelor of Health Care			
Degree Program	Nursing and Health Care			
Specialization	Nursing			
Instructors	Anna Kaisa Partanen, Senior Lecturer			
	Tiina Varamäki, Senior Lecturer			

Nurses around the world faced one of the most challenging situations during COVID-19 pandemic. However, the main study was to describe the various nurses experience in handling patient suffering from COVID-19. This study aims to provide additional knowledge in managing the challenges nurses encounter in handling patients affected by novel coronavirus.

The study was facilitated using descriptive literature review. Literature search approach was executed with two databases: PUBMED and CINAHL. The search was limited to scientific studies, peer reviewed, English language articles that discussed the several experiences of nurses during COVID-19 pandemic. Accordingly, basic inductive content analysis was executed to analyze the collected data from 16 articles chosen.

The study presented five generic categories of nurse's experience and challenges in handling patient with COVID-19 virus: psychological factors, physical aspect, emotional impact, social/ relational effects and environmental challenges. These categories have sub categories withdrawn from articles chosen. Consequently, the study properly described and indicated the factors affecting nurse's experiences.

The result led to the conclusion that, Covid-19 pandemic tested the dedication, capabilities and emotions of nurses around the world. Hence, to overcome nurses' experiences and challenges faced during pandemic, strong support system is needed. Resolving the factors and giving solutions were recommended in managing the nurses' experiences and challenges.

Key Words

pandemic, covid-19, coronavirus, nurse, nurses' experiences, patient,

## Contents

1	Intro	duction	1
2	Wha	at is pandemic?	2
	2.1 2.2	COVID-19 as pandemic Nurses' role during COVID-19 pandemic	3 3
3	Purp	oose, aim and the research questions	5
4	Met	nodology and methods	6
	4.1 4.2 4.3	Data collection Database search and data selection Data analysis method	6 7 11
5	Res	ults	12
	5.1	The experiences of nurses in caring of patients with COVID-19 virus 5.1.1 Psychological factors	13 13
		5.1.2 Physical aspect	14
		5.1.3 Emotional impact	14
	5.2	Challenges nurses face when looking after patients with coronavirus	15
		5.2.1 Social/relational effects	15
		5.2.2 Environmental challenges	16
6	Disc	russions	16
	6.1 6.2 6.3	Discussion of findings Ethical Consideration Validity	16 17 18
7 (	Conclu	usion and recommendations	18
Re	feren	ces	20
Ap	pendi	ces	1
Ap	pendi	x 1: Data analysis result	1
Ap	pendi	x 2: Summary of reviewed articles	2

## 1 Introduction

On 31 December year 2019, the World Health Organization was advised of pneumonia cases with unknown source in China specifically in the city of Wuhan. The novel coronavirus or nCov was discovered as the origin by authorities in China on 7 January year 2020 and was provisionally termed "2019-nCoV". Coronaviruses (nCoV) are an extensive family of viruses that cause an illness preliminary from the common cold to further elevate to respiratory warning sign. The contagious virus is an unknown strain that has not been beforehand identified in humans. The newly discovered virus was afterwards termed the "COVID-19 virus". (World Health Organization 2020.) COVID-19 is instigated by a SARS-CoV-2 virus. In addition, it belongs to the coronavirus family, which contains common viruses that cause a variety of illness from chest or head to more severe patient state like the virus found in Middle East area of the world or also known as Middle East respiratory syndrome (MERS) as well as the severe acute respiratory syndromes (SARS). (Center for Disease Control and Prevention 2021.)

Coronavirus portray as crown-like thorns on the exterior sur-face of the virus; nor, it was so-called as a coronavirus (Shereen, Khan, Kazmi, Bashir & Siddique 2020: 91.) It has caused significant indefinite number of challenges and harm to over 200 countries and different regions worldwide (Gao et al. 2021: 12). Notably, it was newly known disease, the knowledge of nurses regarding the disease and the effort they had committed themselves to came initially from the news only (Specht et al.2021: 3012). However, nurses are at the vanguard of patient management during start of infectious disease pandemics. Nurses perform an essential role in treating and preventing the propagation trend of the disease (Zamanzadeh, Valizadeh, Khajehgoodari & Bagheriyeh 2021: 1).

Nurses task during the Covid-19 pandemic have brought several experiences such as social, psychological, and emotional distress in coping with overload work demands, personal lives, and social relationships (Xu, Stjernswärd, & Glasdam 2021: 19). In addition, nurses endure challenges in undertaking with the inconsistent pandemic due to unpreparedness, the uncontrolled changes occurring in the disease, and the difficulty of performing their responsibilities due to the lack of concrete protocol, reliable information, and proper equipment to prevent the spread of virus contamination (Koontalay, Suksatan, Prabsangob & Sadang 2021: 3023). Apparently, despite the possibilities of risk to themselves and their family, nurses have continued to provide care in a range of

contexts and were inevitably over-represented among Covid-19 cases (Matthew 2020: 3).

This study aims to provide additional knowledge in managing the challenges nurses encounter in caring patients affected by the recent pandemic. Although healthcare providers accept exposure to Covid-19 as part of their profession, facilitating a quality care in unpredictable pandemic situations is not possible without proper support to healthcare workers and paying attention to their mental health and other needs. (Ghorbani et al. 2022: 24.) Moreover, literature review is facilitated in this study and the purpose is to describe the nurses' experiences in caring patients who suffered from Covid-19 virus. Thus, nurses who are facing stressful environments and nurses in the future will benefit from this study.

### 2 What is pandemic?

Pandemic is described as an outbreak of a disease that transpire over a wide geographic area such as different continents and multiple countries. Pandemic typically and usually affects a significant proportion of inhabitants. Similarly, it is an aftereffect of sudden growth, rapid spread, or development of an illness. (Merriam-Webster 2022). In addition, pandemic is described as a dangerous disease that infect numbers of individual, plants, and animals at one time and existing in different areas (Cambridge University Press 2022). A widespread-scale outbreaks of a specific contagious disease that will certainly upsurge number of mortality and morbidity along a wide scope of terrestrial zone and cause substantial environmental, social, even political, and economic disruption is called pandemic. (Madhav, Oppenheim, & Gallivan 2017). Conferring to the Center for Disease Control and Prevention (CDC) the word pandemic is defined as an epidemic that has expand over indefinite number of continents or countries, basically affecting a large population count.

An outbreak of a specific disease is called epidemic according to CDC. However, when there is a sudden elevation in cases and it spread across several places that affects a large number of human beings, it is classified as a pandemic. In addition, a certain virus is determine and how it is dispersion from one individual to another in a consistent method, the public health representatives custom the Pandemic Severity Assessment Framework (PSAF) in able to ascertain the bearing of the pandemic, or how "depraved" the pandemic will be. Meanwhile, the are two chief aspects that can be facilitated to regulate the influence of a pandemic. The initial is medical severity, or how intense is the disease related with infection. Secondly the aspect is transmission, or by what method straightforwardly the virus pandemic extends from human-to-human. These two features collectively used to guide the pronouncement regarding which arrangements Center for Disease Control and Prevention endorse and advise at a prearranged time all through the day of pandemic. (CDC 2016.)

#### 2.1 COVID-19 as pandemic

On 11th of March year 2020, the World Health Organization acknowledge and officially broadcasted COVID- 19 as pandemic due to the uncontainable count elevation of cases around the world (WHO 2020.) COVID-19 is identified to cause several respiratory symptoms that can feel much like a flu, pneumonia, cough, cold, or flu and may affect more than the lungs and a person's respiratory system. Furthermore, other parts of the body may be affected as well by the illness. The same with numbers of other respiratory viruses, coronaviruses or COVID-19 virus spread rapidly through droplets that project out of the mouth or nose when a patient sneezes, coughs, saliva, secretions, breathes, or when a person speaks. (CDC 2021.)

The phenomenon of the Covid-19 pandemic and dynamic deviations in the health care system have formed problematic and even crisis situations in the lives of health care workers (Ślusarska, Nowicki, Niedorys-Karczmarczyk & Chrzan-Rodak 2022: 1154). Subsequently, nurses perform a main role in health care system and are often the underrated leads in health care amenities and emergency response. They are frequently the first to detect health emergencies and effort on the front lines of disease prevention and the conveyance of primary health care, together with health inhibition, promotion, facilitating interventions, dealing and rehabilitation. In many countries, nurses compose almost half of all health care specialists and have a dynamic role in how health arrangements are applied and organized, mutually at the front-line and managerial stages. (WHO 2020.)

#### 2.2 Nurses' role during COVID-19 pandemic

Nurses are the largest health workforce in all healthcare divisions, communities and sectors and necessity to embrace chances to deliver narrative intervention and show-case nursing's contribution to the COVID-19 pandemic days (Popoola 2021: 8). Hence, there is a recognized emotional impact for nurses' witnessing extended suffering of patients inside hospital facilities (Alharbi, Jackson, & Usher 2020: 2762). But despite in-

volvement a proficient commitment to care for the municipal during a pandemic or epidemic, several nurses consume apprehensions regarding their responsibilities and the bearing on them personally. In line with this, considering the experiences of nurses can support in recognizing certain stressors and caring managing strategies to notify support services. (Fernandez et al. 2020: 2.)

Throughout the COVID-19 pandemic days, nurses have been exposed to highly contagious infection risks, mortality, morbidity, moral dilemmas in determining who gualifies for basic care, immediate or intensive care, and excessive workloads as well (Cabarkapa, Nadjidai, Murgier, & Ng 2020: 9). In order to avert the extent of COVID-19 virus and infection, health institutions executed protocols to lessen the family members and caregivers' number in contact with patients, that elevate the burden of giving proper care on affected individual. Some tasks such as portable X-ray imaging that radiological technologists and blood sample collection by medical technologies performed also became nurses' responsibilities. Similarly, staff nurses required to prepare papers for one hospital to another institutions transfers of infected patients, and were also accountable for receiving, validating, keeping, and delivering parcels to patients. Nurses were progressively exhausted in related to additional task, particularly to the job description outside their limit, were given and delegated to them. (Jang, Yang, & Shin 2022: 2924.) Previous study discovered that caring and handling for COVID-19 patients was related with an assortment of experiences for nurses. An investigation of the nurses' experiences discovered four core themes: first is psychological, societal burden of care and physical effect, second is needs that were not met, third is constructive experiences, and lastly the approaches. (Ahmadidarrehsima, Salari & Dastyar 2022: 6.)

Covid-19 occurrence origins serious health and socioeconomic difficulties in the whole world and many new-fangled viral variants are evolving and regrettably the effects of the pandemic will be preceding for an extensive time (Karabey, & Aybek 2021: 1764). Moreover, nurses' experiences during COVID-19 sheds light on the influence of a major pandemic on the health workforce, a main pillar of health systems (Chemali, Mari-Sáez, El Bcheraoui & Weishaar 2022: 27). Previous studies show nurses experience diverse emotions during managing and treating Covid-19 patients, at least one in five healthcare professionals' complaint symptoms of anxiety and depressio. On the other hand, almost four in ten healthcare workers reports insomnia and other symptoms of sleeping difficulties. Yet, rates of anxiety and depression were more complex for female healthcare workers and nursing staff. Furthermore, recent study also included that milder mood symptoms are common, and screening should aim to recognize mild and sub-threshold syndromes. (Pappa 2020: 906.)

The COVID-19 pandemic event is a stress test for the healthcare division. In fact, the onset and persistence of COVID-19 pandemic have rendered to see what conquers in relation to effectiveness and what fails in healthcare facilities especially to nurses (Palese & Papastavrou 2021: 1351-1355.) Nurses are frontline workforces managing with the outpouring number of contaminations and health organizations securing under the strain, and cross the threshold of task in caring during the pandemic at a time when shortage of nurse are around the world. But nowadays it is clear that pandemic has raised the distinguishability of nurses more so, and emphasized that nurses are essential to health care. (Turale S. 2021: 165-170.) In the same manner, nurses survive with the trials of the pandemic in the workplace. At the same time, they do well as members of humanity and community, where they may appear comparable challenges related to child care, access to required possessions, and uncertainty and apprehension for infection inside and outside the clinical setting (Shah, Roggenkamp, Ferrer, Burger, & Brazil 2021: 69-75).

## 3 Purpose, aim and the research questions

The purpose of this literature review study is to describe the experiences of nurses in performing care for C0VID-19 patients.

The core aim of the study is to provide additional knowledge in managing the challenges nurses encountered in caring patients affected by the recent pandemic.

Research questions formed as follows;

- 1. What are the experiences of nurses in caring C0VID- 19 patients?
- 2. What are the challenges nurses face when looking after patients with coronavirus?

#### 4 Methodology and methods

Qualitative method refers to a non-numerical data that describes qualities, opinions or feelings and it provide outcomes not by means of statistical analysis or other resources of quantification. It applies a realistic tactic that pursues to comprehend phenomena about societies' dissimilar stories, behavior and lives comprising those associated to health, administrative functioning, social arrangements, or interactional affairs. (Cypress 2015: 356.) However, qualitative scholars have modified often to industrial transformation, equally in the method of engagement with contributors, and the collection, revolution and storage of statistics (Carter, Shih, William, Degeling & Somers 2021: 712). Qualitative methods and descriptive literature review were used in facilitating this study. Hence, the specific aim in using qualitative research is to deliver in-depth perceptions and thoughtful understanding of real-world matter (Chalmers & Fiona 2021: 46). In line with this study, this method aims to describe the nurses' experiences in handling and performing care for patients with COVID-19 virus.

Narrative or descriptive research establish with the stories of individuals and experiences as expressed. Narrative is an articulated expression or inscribed text giving a justification of an incident or action chronologically allied. (Cypress 2015: 358.) Consequently, this kind of analysis critiques and recapitulates a body of literature and draws conclusions about the theme in interrogation. The frame of literature is comprised of the substantial studies and knowledge that discourse the subject area. In addition, it is characteristically selective in the material it practices, even though the standards for choosing definite sources for review are not permanently apparent to the reader. Conversely, qualitative approaches are frequently facilitated as an initial phase in the advancement of quantitative tools or trainings, qualitative studies offer a compound and patient-centered understandings in their own right and are nowadays regularly produced to apprise health program, facilities for healthcare, and technological health evaluation. (Carter, Shih, Williams, Degeling & Mooney-Somers 2021: 2.)

#### 4.1 Data collection

Literature review recapitulates the appropriate research conclusions and theoretical verdicts on the theme in order to sustenance the direction of the current research and establish the variables to be explored. In addition, literatures review is also frequently present within issued research works and articles. This brief appraisal of pertinent literature, usually taken from the author's further comprehensive study, make available to readers with articles background and context for the contemporary study. (Bowden

2022: 97.) In the same manner, enterprise a literature search is an indispensable phase of the research development and will be appreciated when formulating for interviews, written assignments, and providing clinical care (Watson 2020: 432). Therefore, descriptive literature review was facilitated for the method of data collection in this study.

#### 4.2 Database search and data selection

Two electronic databases were used in this study including CINAHL and PUBMED. These databases comprised numerous health and nursing science articles regarding the various experiences, practices, and nurses' challenges in performing care for COVID -19 patients. Meanwhile, to each of the two selected databases, Boolean operators and the same research sentence (nurs\* experience\* AND challenge\* AND care) (covid-19 OR coronavirus OR 2019-ncov) were used to search for eligible studies. In CINAHL, limiters used were abstract, peer reviewed and English language. The total number of hits were110 studies, 19 were included based on title, 10 studies were selected based on abstract and 7 studies based on full text. Apparently, in the PUBMED database, limiters such as full text, abstract available, associated data, English language and free full text were used. The total number of hits in PUBMED database were 93 studies, 21 studies selected based on title, a total of 14 studies based on abstract and 9 studies were included based on full text. The total number of studies found in two databases were 203 and 40 out of the total number of hits were according to the study title. However, 24 studies were selected based on an abstract and a total of 16 were based on full text presented and listed in Table 1. Data Search.

Table 1: Data Search

Database/ limiters	Search sentence	Number of total hits	Total num- ber included based on their title	Total number included based on ab- stracts	Total number included based on the full text
CINAHL Abstract avail- able Peer reviewed English Lan- guage	nurs* experi- ence* AND challenge* And care AND coronavirus OR 2019-ncov OR COVID- 19	110	19	10	7
PUBMED Abstract avail- able Free full text Full Text Associated data English Lan- guage	nurs* experi- ence* AND challenge* And care AND coronavirus OR 2019-ncov OR COVID- 19	93	21	14	9
Total number of included studies		203	40	24	16

As the topic regarding coronavirus is relatively current, particular years were not used as a limitation or exclusion criteria. Studies published in English language, primary studies, peer reviewed, scientific studies topic about covid-19 patient and nurse's experience in handling patients with coronavirus are included in inclusion criteria of this study. On the other hand, exclusion criteria comprise non-English primary research studies, other pandemic diseases topics, non-nursing experiences, literature, non-academic journal, and thesis works. Studies were attentively read and selected according to criteria given in Table 2. Inclusion and exclusion criteria.

#### Table 2. Inclusion & exclusion criteria

Inclusion criteria	Exclusion criteria
English language literatures	Non-English language literatures
Scientific studies about Covid 19 patients	Other pandemic disease topics
Studies involve nursing experiences	Non nursing experiences literatures
Peer reviewed, scientific studies, primary studies	Non-academic journal and thesis work

The studies identified through database searching yield two hundred and three studies (n=203) from PUBMED and CINAHL. However, no (n=0) additional records identified through other sources. The total number of studies included based on title were forty (n=40) and one hundred sixty-three were excluded, and removed (n=163). Afterwards, one hundred thirty-nine (n=139) records were excluded and twenty-four studies (n=24) were considered as records screened according to abstract. A total of eight (n=8) studies were excepted with reason and the remaining studies were sixteen (n=16) considered as full text articles evaluated for eligibility. As a result, sixteen studies (n=16) were selected for the research study. However, to visually illustrate the process of selection of studies, PRISMA (Preferred Reporting Item for Systematic Review and Meta-Analyses) was used (Prisma 2015). The process of selecting studies was revealed in Illustration 1: PRISMA.

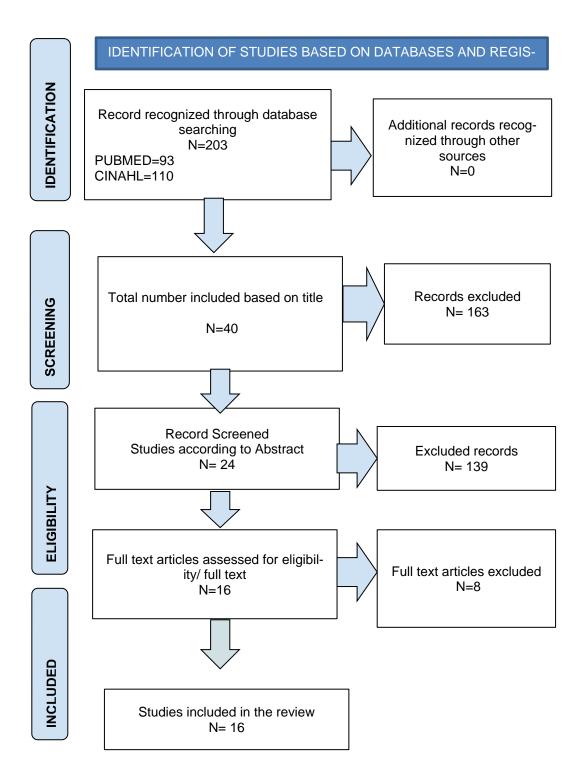


Illustration 1: PRISMA

A total of sixteen (n-16) studies were chosen based on full text reading from two databases used related to the study in related to experiences of nurses in performing care for patient suffering with COVID-19 virus. The studies were chosen and carefully assessed to answer the two study questions; What are the experiences of nurses in caring of COVID - 19 patients. The second question is what are the challenges nurses face when looking after patients with coronavirus. Furthermore, the quality and level of the articles were assessed by using the publication channel search; Julkaisufoorumi. The publication channel search used helps to critique the level of the articles and validate the reliable journals used. There are three levels of classification for the publication channel: 1 = basic, 2 = leading and 3 = top. Moreover, each study was carefully read and assessed. Selected studies were categorized in level 1 and some of the studies belong in level 2. A research article gives information in related with the results of innovative research and also evaluates its involvement to the body of knowledge in an assumed area. In addition, it is issued in a peer-reviewed scholarly periodical or journal. Hence, a given academic field will probably have dozens of peer-reviewed journals (Hall, 2022.) Particular numbers studies selected were introduced in Appendix 2: Summary of review articles

#### 4.3 Data analysis method

Content analysis is a beneficial qualitative analysis method outstanding to its contentcomplex category and ability to analyses numerous categories of exposed data groups. This research method permits scholars to objectively and systematically pronounce research spectacles at the hypothetical level. The content analysis may be utilized to innumerable categories of documents such as images, discussion records, and even in speeches. Thereafter, it is likewise used to generate context, concepts, groupings, and themes, which can be extended to form models, theoretical structures and concrete plots that define the theme underneath study. (Kyngäs 2019: 11-14.)

The inductive content analysis summarizes an array of information into key points relevant to a given research objective. In addition, the inductive content analysis is an advantageous and frequently useful analytical methodology. Even though inductive content analysis tracks a logical procedure, researchers habitually discover it problematic to explicate on how they acknowledged firm themes, groupings, or perceptions, for the reason that the development comprises a certain quantity of awareness. Subsequently, qualitative researchers who included the inductive content analysis do not give contemporary any numerical results, nonetheless rather use the concepts recognized during the analytical progression to answer their research question. This helps to increase the overall understanding of the characteristics and the quality of the research topic. (Kyngäs 2019: 11.)

The uncomplicated inductive content analysis is supported out in related to the succeeding phases: lessening of data collected, statistics assemblage, and followed by concepts development that can be used to answer research questions. In addition, content analysis is used for data abstraction (Kyngäs 2019: 14.) To add more, the process of data analysis is from the comprehension of the data as the beginning step. Related phrases were obtained from the sixteen selected studies as the meaning unit, followed by simplifying it, which is considered as reduction or coding. Meanwhile, similar words and expressions that described nurses 'experiences and the challenges in handling COVID- 19 patients during pandemic years were grouped as subcategories. Each subcategory was analyzed and combined into a generic category. Lastly, the main category was formulated to correspond with the two research questions: What are the nurses experiences in caring COVID -19 patients, and what are the challenges nurses face when looking after patients with coronavirus.

#### 5 Results

Upon careful identification of the various categories in the sixteen selected studies, five general categories were classified such as psychological factors, physical aspect, emotional impact, social/ relational effects, and environmental challenges. The following subcategories were identified: fear, anxiety, depression, stress, burn out, excessive workload, wearing Personal Protective Equipment (PPE) and exhaustion. In addition, emotional stress, moral distress, living with uncertainty, lack of support or presence of individuals also included in nurses' experiences. Moreover, team cohesion, communication groups, guidance to the information of the disease, lack of protective equipment, work organization, safeties, dealing with different changes, management of stress and self-reflection were also part of the subcategories of this study.

Nurses experienced stigma in handling patient with COVID-19 virus and they had divergent healthcare hero perception. In the same manner, accommodating through elevated rate of patient's deceases, dealing with patients who need an intense care at the same time, frequent changing of PPE, and negative emotional states were some of the challenges nurses faced when pandemic caused by COVID-19 virus happened. Staff shortage, priority setting dilemmas, communication challenges, adjustment in working with newly acquired staffs, lack of information about the virus and moral distress were also found as subcategories from the articles chosen. The outcome of the data analysis was interpreted in Appendix 1: Data analysis result.

#### 5.1 The experiences of nurses in caring of patients with COVID-19 virus

The first main category of analysis result was the experiences and practices of nurses in kind caring for COVID-19 affected individual including three main categories: psychological factors, physical aspect and emotional impact. The procedure of inductive analysis was administered in interpretation of the study results. The groupings were formulated from the sub-categories found in analyzing the sixteen studies.

#### 5.1.1 Psychological factors

There were different psychological factors in a nurse's experience performing care for COVID-19 infected patients such as stress, depression fear, burnout, anxiety, and exhaustion. Hence, nurses' as significant adherents of the COVID-19 patient intervention squad were at risk to encounters hardships produced by the disease. The primary sources of the nurses' distress, suffering and apprehension remained the hazard of COVID-19 contamination. The likelihood of spreading the sickness to the community and immediate family members, abrupt worsening of some patients' medical situations, and enlarged the rate of mortality. Apparently, the obsession with the likelihood of a little assignation or not creating adequate determination to prolong and save patients life, skills and ability insufficiency to perform assistance for critically-ill patients. (Ahmadidarrehsima, Salari, Dastyar & Rafati 2022: 1-7).Hence, the properly required usage of personal protective equipment (PPE) before touching and going to the patient's room added stress to the nurse (Chen, Zang, Liu, Wang & Lin 2021: 13-14.)

The pervasiveness of the ailment and providing nursing intervention for COVID-19 patients predestined injury of peace in lifecycle, cessation of personal life, restricted contact with family members, family members be frightened of contamination transmission and their fascination, all of which recommended a kind of internal agony among the nurses. (Moradi, Banghei, Hosseingholipour & Mollazadeh 2021: 1159-1168). It is widely acknowledged that the involvements of frontline primary health care authorities during COVID-19 are imperative to comprehend how they act and respond under circumstances of pandemic as the gatekeepers in the primary health care system. (Lee, West, Tang, Cheng, Chong, Chien & Chan, S. 2021: 399-408). In addition, nurse's burnout in handling COVID-19 patients was caused by mental tiredness and overworked during the pandemic due to shortage of staff, workload increase and new responsibilities (White, Wetle, Reddy & Baler 2021: 100-203.

#### 5.1.2 Physical aspect

Founded on the nurses' experiences, extended exposure taking care of COVID-19 patients had directed to some difficulties, which includes skin rashes, spots, physical weariness, skin damage and hormonal illnesses. Working with PPE reduced ability and focus when excruciating weight of putting personal protective gear, struggle in taking meals, drinking liquids and incapability to use the urinate and defecate related to the use of protective paraphernalia. (Moradi, Banghei, Hosseingholipour & Mollazadeh 2021: 1159-1168). In fact, nurses come across countless unforeseen uneasiness such as breathlessness, overheat, dehydration, suffocations, and headaches. These are all accompanying with compromised physique function (e.g., impaired hearing, reduced visualization, joint sensation, smell sensation and controlled mobility and relational communication) connected with the practice of layering the full gear PPE. (Chen, Zang, Liu, Wang & Lin 2021: 13-14.)

The pandemic era emphasizes entirely all points of the health care association and weights given to the nurses together with being assigned to different units and compulsory overtime shifts that cruelly conceded the nurses' sense of welfare (Casey, Oja, & Makic 2021: 1072-1080.) However, over workloads, extreme physical overtiredness of working throughout the C0VID-19 pandemic due to staffing deficiencies/absences, and unfamiliar tasks were dispensed to nurses. (White, Wetle, Reddy & Baler 2021: 100-203).

#### 5.1.3 Emotional impact

Nurses experience a divergence of emotions during COVID-19 pandemic such as vulnerable, panic, empathy and fright. Some of these emotions included the fear of getting the disease and passing the disease to someone, a COVID-19 lacking of intervention and knowledge about it, and treament for patients in an isolated the environment. (Gordon, Magbee & Yoder 2021). However, In the occurrence of stressful predicaments while providing treatment for patient who are affected by the disease, nurses must be provided with extra help and assistance by the management in overcoming the symptoms of depression, having programs that may counsel nurses to alleviate anxiety, from the senior nurses and to those who are just new. As everyone needs help during these times. (Naylor, Hadenfeldt & Timmons 2021: 392-394). One of the emotional impacts is living with uncertainties during pandemics. Purely rely on the nurses' experiences, the unknown cause and its origination of the disease due to the lack of information on the prognosis, lack of specific treatment and medicines, unknown route of transmission, ambiguous clinical presentation and scarcity of a specific vaccines were mainly the causes of a indistinct and uncertain situation. In addition, the distress of contracting the virus and infecting family members had led to a kind of self-doubt and ambivalence in the nurses' lives. (Moradi, Banghei, Hosseingholipour & Mollazadeh 2021: 1159-1168). The accoutability of caring for patient who's been affected by the disease, suffering and demise was also included as consequential (White, Wetle, Reddy & Baler 2021: 100-203.)

#### 5.2 Challenges nurses face when looking after patients with coronavirus

The challenges nurses faced when looking after patients with coronavirus is the second main category of the study. By using inductive analysis two generic categories were created such as social/relational effects and environmental challenges.

#### 5.2.1 Social/relational effects

The COVID-19 pandemic came with isolated challenges and difficulties to critical care areas and to nurses. The social effects encountered by nurses such as multiple responsibilities, stigma, divergent healthcare hero perception, the loneliness and isolation, strained interaction with others (Gordon, Magbee & Yoder 2021). The use of personal protective equipment created a substantial hindrance to relational care and in interacting and communicating with patients, it compromised hearing, seeing facial expressions, lip reading, the use of non-verbal cues and sings, and loss of physical touch. Personal protective equipment also made it difficult to determine specific personnel (Sugg et al, 2021: 1-17.) In addition, majority of experienced nurses expressed dreadful feeling fear and the sense of being unwanted by society or their particular families as it was labelled as an unfortunate event. It was also expressed as the apathetic of coworkers in different divisions and in approximately cases the family's displeasure and with their work in the area for COVID-19 patients as awful societal encounter. (Ahmadidarrehsima, Salari, Dastyar & Rafati 2022: 1-7).

Communication concerns directly with the patient and their relatives, with mostly half of respondents stating that this influences nurses' ability to establish a connection with

patients. They had a hard time building connections establishing rapport with patients; encountered difficulties in being listened to, recognized, and sharing time with patients; and were reduced to the use of non-verbal cues, facial expressions and initiate comfort and connect with the patients. (Sugg et al, 2021: 1-17.)

#### 5.2.2 Environmental challenges

In an unfamiliar and rare care environment encounter owed to virus spread threat was the part of the nurse to stand as substitute for primary relations. Nurses shared trials lending human reassuring interactions, undergoing losing patients, quarantine, lack of PPE concerns, delay of care, the constant changing practice guidelines, and lastly, language barriers (Gordon, Magbee & Yoder 2021.). However, one of the articles included in this study gives a result that work surroundings and organization are fundamental for the standards of life at work and patients' welfare, and the change process determines the promotion of individuals. Swift organizational changes, the vigor of nurses to giving COVID-19 services, rotational in work shifts and the inaccessibility and lack of breaks due to the wearing of personal protective equipment defines and depicts nurses' environmental challenges in handling patients suffering with COVID-19 virus. (Poortaghi, Shahmari, & Ghobadi 2021: 27). In addition, environmental challenges may differ depending on the circumstances that can be predicted or not.

## 6 Discussions

## 6.1 Discussion of findings

The main objective of this study was to describe the experiences of nurses' taking care of COVID-19 patients; additionally, it aims to provide additional knowledge in managing the challenges nurses encounter in catering for patients affected by the COVID-19. The findings associated with this study were categorized into five generic categories and together with its subcategory. This review found only sixteen studies that fulfilled the inclusion criteria which were mostly made up of qualitative approaches Furthermore, these findings that were interpreted in the results show how difficult is it to care for patients that have been affected by the pandemic, and multiple factors were also highlighted. Upon c careful review of the available literature, these findings provide insights that affect the experiences of nurses that can be used in the future. The result of this study identified the problems that the nurses faced throughout the Covid-19 pandemic. Thereafter, with elevated probability of infection, exhausting workload, health concerns,

and even death. The five categories that were identified summarize all including the subcategories and this shows what are the experiences the specifics of caring for those individuals and what nurses faced during the pandemic

These findings are important as it may serve as a basis when identifying experiences of nurses during a pandemic not only during this time but also in the future. Often over-looked, nurses are more than capable of handling multiple factors. With proper support and education, nurses may help lessen and avoid negative experiences that they encounter. The outcome of this study identified the problems that the nurses endured during the commencement of the COVID-19 pandemic. Hence, the outcomes were able to narrow down the major factors that the nurses faced but also it was able to focus on what were the danger, threats, prolonged exposure to patient suffering and viral transmission, and a substantial number of negative impacts on nurses' psychological 16 well-being. It is evident that there is a need to seek factors to protect nurses over all well-being and psychological health

#### 6.2 Ethical Consideration

The significance of ethics in conducting research and challenges while doing the research is vital, schools and researchers go to extensive lengths to secure and preserve the anonymity and safety of research participants. For its purpose of research to be reliable and ethically acceptable and also for its results to be trustworthy, the research should be conducted in accordance with the accountable manner of research. Implementing the guidelines for the responsible manner of research within the research community account for a form of self-regulation that is bound by law. In addition, the accountable conduct of research is an intact and importantly part of the quality assurance of research organizations (TENK 2012.) With any discipline that includes research with animals or a human, researchers required to discourse any ethical issues probable. Ethical concerns are particularly straightforwardly perceived with nursing research for the reason that the line of separation amid what establishes the collection of the research statistics can sometimes get distorted and the projected practice of nursing (Polit & Beck 2013: 118.) The subject of this study being a global concern and focused entirely on determining the experiences and as well as the challenges nurses encountered while providing care for COVID-19 patients over the past two years, no questionnaires/survey forms were administered, and no respondents were targeted, therefore, informed consent is uncalled for. Research questions were answered by gathering information from verified, updated sources relevant to the study which were recently published. Data search, data collection, and analysis methods are in accordance to the responsible conduct of research and ethically proved. Lastly, all references cited in this research were properly credited and resources are outlined in the appendices.

#### 6.3 Validity

The validity in qualitative research defines the "appropriateness" of it is a tool, processes, and data. In case if the research question is effective for the anticipated results, the chosen methodology is suitable for responding the research question, if the enterprise is precise for the methodology, the selection and figures analysis is relevant, and lastly, whether the results and conclusions are in parallel for the sample, context, and background. (Leung 2015: 325). To add more, validity concludes if it the statement is true enough, as has how well the study was measured that it has evidence to back it up. The trustworthiness of data focusing on the study questions was considered in this literature review. A detailed search was conducted in respected electronic databases such as CINAHL and PUBMED to further ensure the validity of this study. JUFO was also used in this study to determine the rating and classification system of scientific publications to assist with the quality assessment of the academic research that was chosen.

JUFO which is a forum by Finnish scientific community with the intention of to give assistance and to guarantee and support the quality assessment of academic research and classifies the level of the study (JUFO, 2021). Finally, those chosen articles were analyzed using the same codes and then reviewed and then evaluated. This literature review had its limitations. Reviewed literature did not include studies conducted in other pandemic diseases. Neither it included studies, non-nursing experiences literature and non-academic journal and thesis work were also excluded.

## 7 Conclusion and recommendations

This study described nurses' different experience in providing care for patients infected by COVID-19 virus and provides additional knowledge in managing challenges nurses encounter in caring for patients suffering from the virus during COVID-19 pandemic. Qualitative research using descriptive literature review methodology was facilitated to execute this study. Consequently, the occurrence of COVID-19 virus worldwide affects the well-being care sector particularly nurses who have direct contact with patients. This COVID-19 pandemic changed the world and have been traumatic to every individual. In addition, pandemic tested the dedication, capabilities and emotions of nurses in every part of the world.

The sixteen articles used in this study showed three generic categories under nurse's experience; psychological factors, physical aspect and emotional impact. However, two generic categories were revealed as challenges nurses face when looking after patients with coronavirus such as social/relational effects and environmental challenges. Hence, after reading and reviewing the selected articles regarding several experiences of nurses in handling COVID-19 patients, it was revealed that the nurses went through different situations and states throughout the start of COVID-19 pandemic around the world. The presented study outcomes can be generalized among nurses in different hospitals and countries.

Lastly, the presented study could inspire further reviews into nurses' experiences in handling COVID-19 patients and further pandemic illnesses in the forthcoming days. Different kinds of viruses have a possibility to discover again and may damage to anyone. It will be easier for healthcare providers to handle it if certain studies pertaining to resolving the negative experiences nurses encountered from the past pandemic days will be facilitated. In the same manner, to overcome the different experiences and challenges nurses face during pandemic, the causes of stress, burnout, depression, anxiety, fear, physical exhaustion, social/relational effects and environmental factors should be first resolved.

Hospitals and other institutions can provide activities that may divert nurse's stress in handling patients, incentive may also be given to encourage health care providers to do their best in the work field. Furthermore, hospital management must give additional assistance to nurses such as counselling sessions, seminars, lectures or mentoring program to enhance their capabilities as health care providers. In addition, giving awards and recognition may help nurses to feel appreciated despite toxic situations. It will also be helpful for nurses to receive clear instructions, protocol, and information regarding a new disease before handling it. Hence, strong support system among nurses from family, community and government is vital as well.

## References

Ahmadidarrehsima, S.& Salari, N.& Dastyar, N.2022 Exploring the Experiences of Nurses Caring for Patients with COVID-19: A Qualitative Study in Iran. The BMC Nursing, 21(1),1–7.

Alharbi, J. & Jackson, D., & Usher, K. 2020. The potential for COVID-19 to contribute to compassion fatigue in critical care nurses. The Journal of Clinical Nursing, 29. 15-16.

Bowden V.R. 2022. Types of review part three: A literature review, integrated review, scoping review part 3. The Pediatric Nursing 49(2), 97-100.

Cabarkapa, S.& Nadjidai, S.& Murgier, J. & Ng, C. 2020. The psychological impact of COVID-19 and other viral epidemics on frontline healthcare workers and ways to address it: A rapid systematic review. Brain, behavior, & immunity - health, 8. 1-10.

Cambridge University Press 2022. Definition of Pandemic <u><https://dictionary.cam-bridge.org/dictionary/english/pandemic</u>>. Accessed 03 November 2022.

Carter S.& Shih P., William J. & Degeling C., & Somers J. 2021. Conducting qualitative research online challenges and solutions.14, 711–718. <a href="https://doi.org/10.1007/s40271-021-00528-w">https://doi.org/10.1007/s40271-021-00528-w</a>. Accessed 04 May 2022.

Casey, K., Oja, K. J., & Makic, M. B. F. (2021). The lived experiences of graduate nurses transitioning to professional practice during a pandemic. A Nursing Outlook, 69(6), 1072–1080.

Chemali, S.& Mari-Sáez, A. & El Bcheraoui, C. & Weishaar, H. 2022. Health care workers' experiences during the COVID-19 pandemic: a scoping review. The Human resources for health, 20(1), 27.

Chen, F., Zang, Y., Liu, Y., Wang, X., & Lin, X. 2021. Dispatched nurses' experience of wearing full gear personal protective equipment to care for COVID-19 patients in China-A descriptive qualitative study. The Journal of clinical nursing, *30*(13-14), 2001–2014.

Centers for Disease and Prevention 2016. Pandemic Severity Assessment Framework (PSAF). < <u>https://www.cdc.gov/flu/pandemic-resources/national-strategy/severity-as-sessment-framework.html</u>>. Accessed 20 May 2022.

Centers for Disease and Prevention 2021. A Basic of COVID-19. <a href="https://www.cdc.gov/coronavirus/2019-ncov/your-health/about-covid-19/basics-covid-19.html">https://www.cdc.gov/coronavirus/2019-ncov/your-health/about-covid-19/basics-covid-19.html</a>. Accessed 05 May 2022.

Chalmers, J. & Fiona C. 2021. "What Are Quantitative and Qualitative Research Methods? A Brief Introduction." A Dermatological Nursing, Part 2, 20 (2), 45–48.

Chemali, S.& Mari-Sáez, A. & El Bcheraoui, C., & Weishaar, H. 2022. Health care workers' experiences during the COVID-19 pandemic: a scoping review. The Human resources for health, 20(1), 27

Cypress, B. 2015. Qualitative research: the "what," "why," "who," and "how"! Dimensions of critical care nursing: DCCN 34 (6). 356–361.

Fernandez, R. & Lord, H., & Halcomb, E. & Moxham, L. & Middleton, R. & Alananzeh, I., & Ellwood, L. 2020. Implications for COVID-19: A systematic review of nurses' experiences of working in acute care hospital settings during a respiratory pandemic. International Journal of Nursing Studies, 111.

Gao, Z.& Xu, Y.& Sun, C.& Wang, X.& Guo, Y.& Qiu, S. & Ma, K. 2021. A systematic review of asymptomatic infections with COVID-19. The Journal of microbiology, immunology, and infection, 54(1), 12–16.

Ghorbani, A. & Shali, M. & Matourypour, P.& Salehi Morkani, E. & Salehpoor Emran, M. & Nikbakht, A. 2022. Explaining nurses' experience of stresses and coping mechanisms in a coronavirus pandemic. The Nursing Forum, 57(1), 18–25.

Gordon, J. M., Magbee, T., & Yoder, L. H. 2021. The experiences of critical care nurses caring for patients with COVID-19 during the 2020 pandemic: A qualitative study. Applied nursing research: ANR, 59, 151418.

Hall, Shane 2022. Definition of a Research Article. penandthepad.com. Retrieved from Definition of a Research Article. Accessed 28 May 2022.

Jang, H. & Yang, J., & Shin, Y. S. 2022. A phenomenological study of nurses' experience in caring for COVID-19 patients. The International Journal of Environmental Research and Public Health, 19(5), 2924.

Jufo, Publication Forum, <https://julkaisufoorumi.fi/en> Accessed 29.05.2022

Karabey, T. & Aybek, D. 2021. Oxidative Stress, Covid-19 and Nursing Care. The International Journal of Caring Sciences, 14(3), 1763–1770.

Koontalay, A. & Suksatan, W.& Prabsangob, K., & Sadang, J. M. 2021. Healthcare workers' burdens during the COVID-19 pandemic: A qualitative systematic review. Journal of Multidisciplinary Healthcare, 14, 3015–3025.

Kyngäs, H. 2019. The Application of Content Analysis in Nursing Science Research <a href="http://dl1.tarjomac.ir/nursing-ebooks/TPC202203.pdf">http://dl1.tarjomac.ir/nursing-ebooks/TPC202203.pdf</a>>. Accessed 26 April 2022.

Lee, R., West, S., Tang, A., Cheng, H. Y., Chong, C., Chien, W. T., & Chan, S. 2021. A qualitative exploration of the experiences of school nurses during COVID-19 pandemic as the frontline primary health care professionals. Nursing outlook, *69*(3), 399–408.

Leung, L. 2015. Validity, reliability, and generalizability in qualitative research. Journal of family medicine and primary care 4(3), 324–327.

Madhav, N. & Oppenheim, B. & Gallivan, M. 2017. Pandemics: Risks, Impacts, and Mitigation. In: Disease Control Priorities: Improving Health and Reducing Poverty. The International Bank for Reconstruction and Development / The World Bank, Washington (DC)<<u>https://www.ncbi.nlm.nih.gov/books/NBK525302</u>>. Accessed 14 November 2022.

Matthews, S. 2020. Appreciation of nurses enhanced by the Covid-19 experience. Dissector, 48(3), 3.

Merriam-Webster 2022. Definition of pandemic. <a href="https://www.merriam-web-ster.com/dictionary/pandemic">https://www.merriam-web-ster.com/dictionary/pandemic</a>> Accessed 24 April 2022.

Moradi, Y., Baghaei, R., Hosseingholipour, K., & Mollazadeh, F. (2021). Challenges experienced by ICU nurses throughout the provision of care for COVID-19 patients: A qualitative study. Journal of nursing management, 29(5), 1159–1168.

Palese, A. & Papastavrou, E. 2021. Challenges and opportunities in health care and nursing management research in times of COVID-19 outbreak. Journal of nursing management, 29 (6),1351-1355

Pappa S. & Vasiliki N. & Timoleon G. & Vassilis G. & Eleni P. & Paraskevi K. 2020. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis, Brain, Behavior, and Immunity, 80. 901-907.

Polit DF & Beck CT 2013 Essentials of Nursing Research: Appraising Evidence for Nursing Practice. Philadelphia, USA: Wolters Kluwer Health. <Essentials of Nursing Research: Appraising Evidence for Nursing Practice> Accessed 10 May .2022.

Poortaghi, S., Shahmari, M., & Ghobadi, A. 2021. Exploring nursing managers' perceptions of nursing workforce management during the outbreak of COVID-19: a content analysis study. BMC nursing, 20(1), 27.

Popoola, T. 2021. COVID-19's missing heroes: Nurses' contribution and visibility in Aotearoa New Zealand. Nursing Praxis in Aotearoa New Zealand, 37(3), 8-11.

PRISMA Flow Diagram. (2015) PRISMA Transparent Reporting of systematic Reviews and Meta-Analyses. <a href="http://prisma-statement.org/prismastatement/flowdiagram">http://prisma-statement.org/prismastatement/flowdiagram</a>.06 June 2022.

Shah, M & Roggenkamp, M. & Ferrer, L. & Burger, V. & Brassil K. 2021. Mental health and COVID-19: The psychological implications of pandemic for nurse. Clinical Journal of Oncology Nursing, 25(1), 69-75.

Shereen, M.& Khan, S. & Kazmi, A.& Bashir, N. & Siddique, R. 2020. COVID-19 infection: Emergence, transmission, and characteristics of human coronaviruses, Journal of Advanced Research, 24,91-98.

Ślusarska, B.& Nowicki, G.& Niedorys-Karczmarczyk, B. & Chrzan-Rodak, A. 2022. Prevalence of Depression and Anxiety in Nurses during the First Eleven Months of the COVID-19 Pandemic: A Systematic Review and Meta-Analysis. International journal of environmental research and public health, 19(3), 1154.

Specht, K.& Primdahl, J. & Jensen, H. & Elkjaer, M. & Hoffmann, E.& Boye, L. K., & Thude, B. R. 2021. Frontline nurses' experiences of working in a COVID-19 ward-A qualitative study. Nursing Open, 8(6), 3006–3015.

Sugg, H. V. R., Russell, A.-M., Morgan, L. M., Iles-Smith, H., Richards, D. A., Morley, N., Burnett, S., Cockcroft, E. J., Thompson Coon, J., Cruickshank, S., Doris, F. E., Hunt, H. A., Kent, M., Logan, P. A., Rafferty, A. M., Shepherd, M. H., Singh, S. J., Tooze, S. J., & Whear, R. 2021. Fundamental nursing care in patients with the SARS-CoV-2 virus: results from the COVID-NURSE" mixed methods survey into nurses' experiences of missed care and barrie to care. BMC Nursing, 20(1), 1–17.

TENK (2012). Responsible conduct of research and procedures for handling allegations of misconduct in Finland. <http://www.tenk.fi/sites/tenk.fi/files/HTK\_ohje\_2012.pdf> Accessed 24 April 2022.

Turale S. 2021. Nursing challenges into the future. Pacific Rim international Journal of nursing Research. 25 (2). 165-170

Watson M. 2020. How to undertake a literature search: a step-by-step guide. British Journal of Nursing. 29(7):431-435.

White, E. M., Wetle, T. F., Reddy, A., & Baier, R. R. 2021. Front-line Nursing Home Staff Experiences During the COVID-19 Pandemic. Journal of the American Medical Directors Association, 22(1), 199–203.

World Health Organization 2022. Coronavirus disease (COVID-19) pandemic. Updated 2022<WHO/Europe | Coronavirus disease (COVID-19) outbreak - About the virus>. Accessed 18 April 2022.

World Health Organization 2022. Nursing and Midwifery. Updated 2022< https://www.who.int/health-topics/nursing#tab=tab\_1 >. Accessed 26 April 2022.

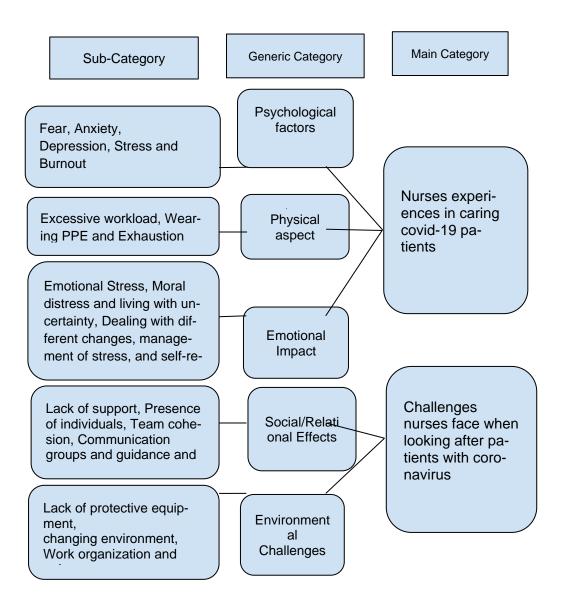
World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020. 2020. Available from: <a href="https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020">https://www.who.int/director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020</a>> Accessed 04 May 2022.

Xu, H. & Stjernswärd, S., & Glasdam, S. 2021. Psychosocial experiences of frontline nurses working in hospital-based settings during the COVID-19 pandemic - A qualitative systematic review. International journal of Nursing Studies Advances, 3.

Zamanzadeh, V.& Valizadeh, L.& Khajehgoodari, M., & Bagheriyeh, F. 2021. Nurses' experiences during the COVID-19 pandemic in Iran: a qualitative study. BMC Nursing, 20(1), 1–9.

## **Appendices**

## Appendix 1: Data analysis result



STUDY	AIM	SAMPLE	RESEARCH DESIGN/METHODS/	MAJOR FINDINGS	LIMITATIONS
			ANALYSIS		
1	The aim was to recognize the	1062 qualified respond-	piloted a cross-sectional study	Of 1062 respondents, the most rated	Possible limitation of this study is
Sugg et al.	views and experiences of reg-	ents were UK-based	employing a mixed methods ex-	mobility, talking and listening, non-ver-	the absence of a predefined sample
	istered nurses and non-regis-	registered nurses and	planatory design guided by a	bal communication, interaction with	size. We employed a convenience
2021	tered nursing care staff on	non-registered auxiliary	pragmatic philosophy. For the	significant others, and emotional well-	sampling frame with a sample size
	lack fundamental care and	nursing/ healthcare sup-	quantitative and qualitative com-	being as worse for patients with	determined by the period of time the
UK	the obstacle to fundamental	port workers/ assistants	ponents, we collected data con-	SARS-CoV-2.	survey was open for, which was in
	care for inpatients with the	that had actively in-	currently and analyses data next		turn constrained by the rapid nature
Foundational nurs-	SARS-CoV-2 virus not inva-	volved in nursing inpa-	(with qualitative data analyses in		of the wider COVID-NURSE trial
ing care in patients	sively ventilated.	tients with the SARS-	order to explain the quantitative		and the need to collect pandemic
with the SARS-		CoV-2 virus who were	data)		evidence as quickly as possible in a
CoV-2 virus: out-		not invasively ventilated.			rapidly evolving situation.
come from the					
"COVID-NURSE"					
mixed methods					
survey into nurses'					
experiences of					
missed care and					
obstacle to care					
2	Recent study explored the	The targeted research	This qualitative study was ana-	In this study, ten nurses who worked	Although efforts were made to
Ahmadidarrehsima	experiences of nurses caring	population was nurses	lyze with a conventional content	in COVID-19 and ICU COVID-19	maximize the dissimilarity of
et al.	for patients with COVID-19.	working in	analysis approach to explore	wards were question and probed.	nurses, due to sample size limita-
		-	nurses' experience of caring for	Four participants were male and the	tions and the selection of nurses

## Appendix 2: Summary of reviewed articles

2022		the wards and intensive	COVID-19 patients in the south	rest were female. Analysis of the data	from one hospital, it cannot be
2022				,	•
		care units (ICU) where	of Iran.	revealed 4 main themes: (1) Physical,	guaranteed that all nurses' experi-
Iran		patients with COVID -		psychological, and social burden of	ences have been considered. The
		19 were look after for.		care, (2) Unmet needs, (3) Positive	findings of this study may not be
Study of the expe-				experiences, and (4) Strategies. The	generalizable to nurses
riences of nurses				main themes and sub-themes that	of other countries.
caring for patients				emerged from the data collected from	
with COVID-19: a				nurses' experiences in caring for pa-	
qualitative study in				tients with COVID-19 disease.	
Iran.					
3	The aim of this study was to	Selected participants	Phenomenology is a philosophi-	Participants identified challenges of	Although the teacher-to-former stu-
Naylor, H et al.	describe the experience of	were novice nurses with	cal approach and qualitative re-	dealing with frequency of patient	dent relationship of the PI to partic-
	novice nurses working in	two years or less expe-	search method that can be par-	deaths, high acuity patients, changing	ipants may be a limitation regarding
2021	acute care settings during a	rience working full-time	ticularly effective when studying	personal protective equipment (PPE)	perceptions about nursing school
	pandemic.	in any acute care setting	phenomenon where little	requirements, and working under-	preparation for the pandemic, par-
USA		that taken care of pa-	knowledge has been	staffed. They also described positive	ticipants willingly responded to calls
		tients with COVID-19.	previously uncovered as in the	aspects such as interaction with team-	for participation and shared openly
Newly graduate		Six different acute care	phenomenon experienced by	mates, satisfaction with their decision	with the PI, perhaps due in part to
Nurses' Experi-		facilities were repre-	nurses caring for acutely ill	to become a nurse, and how nursing	the established relationship. Addi-
ences Caring for		sented. Ten nurses	patients during a pandemic.	school featured in their adaptation to	tionally, participants noted in a
Acutely III Patients		worked with COVID pa-	For the data analysis, a team of	working in a pandemic. Below is a	theme that talking with other health
during a Pandemic		tients or patients under	three researchers, including the	summary of these findings with sup-	care providers who understand was
-		investigation (PUIs),	PI, independently examined and	porting quotes. All participants were	a significant and desirable form of
		and three worked on	coded the 13 de-identified tran-	assigned pseudonyms to protect their	coping with stress during this time,
		non-COVID units, with	scripts using Microsoft Word and	privacy	and they may have perceived ben-
		one of these three	"track changes" and "comments"		efit in sharing this experience with
		asked to cross-train to	features with notes on sidebar.		a fellow clinician, and their former
		work in a COVID unit.			teacher.

4	The aim is to describe the	15 Portuguese nurses	Qualitative study with phenome-	The study elaborated the perception	One of the limitations of the study
Borges, E et al	perception and experiences	take part in the study.	nological	and experiences of a sample of	was the method of selection of
	of nurses about their execution		approach.	nurses about their performance in the	participants is considered, which
2021	during the COVID-19 pan-			context of the COVID-19 pandemic,	does not allow the conclusion of
	demic.			highlights,	the respective results. As well, the
Brazil				from this experience the negative	fact that the context of the COVID-
				emotional impact.	19 pandemic is a new situation for
Perceptions and					participants.
experiences of					
nurses about their					
execution in the					
COVID-19 pan-					
demic.					
		<b>F</b> ''()	Our lite the many such as the d		The feature of the three of
5.	The aims of the study were to	Fifteen graduate nurses	Qualitative research method	Seven themes were identified: 1) be-	The familiarity of the three re-
Casey, K et al	1) identify practice experi-	participated to take part		ing new is overwhelming, even more	searchers may be viewed as both a
	ences of graduate nurses	in the study. Three of		so during COVID-19, 2) flexibility is a	strength and limitation. The re-
2021	during the COVID-19 pan-	the nurses identified as		must, 3) pandemic knowledge and	searchers were familiar with the
Colorado	demic and 2) perceived grad-	being in practice for		practice disconnect, 4) communication	challenges of transition to practice
	uate nurses' preparedness	three to five months;		barriers worsened with because of	for graduate nurses and the partici-
The lived experi-	for practice during the	four participants identi-		masks, 5) being a "COVID nurse," 6)	pants were accustomed to sharing
ences of graduate	COVID-19 pandemic.	fied as being in practice		lack of self-care, and 7) gratitude: still	their experiences with the GNR
nurses becoming		for nine to ten months;		glad to be a nurse	Program Coordinator during
professionals		and eight identified as being in practice for 11			monthly check in sessions. The nurses all work in a level one
practice during a		to 15 months.			safety-net hospital providing care to
pandemic					, , , , ,
					a unique demographic population of a large urban city which may
					have influenced the practice expe-
					riences shared by the participants

C	Describe priority acting and	Among the 1606 pertial		The response rate was quite law	Among the 1606 porticipants 670/
6	Describe priority-setting pre-	Among the 1606 partici-	Quantitative. A cross-sectional	The response rate was quite low	Among the 1606 participants, 67%
Miljeiteg, I. et al	dicaments, moral distress	pants, 67% had experi-	hospital-based survey	(18%), which may be due to limited	had experienced priority-setting di-
winjeneg, i. et al	and support encoutered by	enced priority-setting di-		time or access to computers or email	lemmas the previous two weeks.
2021	nurses and physicians across	lemmas the previous		at work. Healthcare workers more af-	Healthcare workers who were di-
2021	medical specialties in the	two weeks. Healthcare		fected or interested in COVID-19 re-	rectly affected in COVID-19 care,
Norway	early phase of the COVID-19	workers who were di-		sponses might have been more likely	were redeployed or worked in psy-
	pandemic in Western Nor-	rectly affected in		to participate, which may have biased	chiatry/addiction medicine experi-
Priority-setting pre-	way.	COVID-19 care, were		our results. However, the distribution	enced it more often. Although 59%
dicament, moral		redeployed or worked in		of background variables was similar in	of the respondents had seen ad-
distress and sup-		psychiatry/addiction		our sample as seen in the source pop-	verse repercussion due to resource
port experienced		medicine experienced it		ulation, which is reassuring. Another	scarcity, severe consequences
by nurses and phy-		more often		potential limitation is the moral distress	were rare. Moral distress levels
sicians in the early				scale, which was used as a simplified	were generally low (2.9 on a 0-10
phase of the				proxy to capture the complex experi-	scale), but higher in selected
COVID-19 pan-				ence of moral distress.	groups (redeployed, managers and
•					working in psychiatry/addiction
demic in Norway.					medicine
7	The aim of this study was to	All 17 respondents were	Qualitative descriptive study	the study occurred during the initial	The study findings represent the
	gain a better understanding	interviewed in order to		months of the pandemic, and many	communication experiences of
Pariseault, c et al	of the insights and experi-	allow for richer satura-		nurses may have simply been too	nurses working during the global
2022	ences of nurses caring for pa-	tion and to make our		overwhelmed to respond. Another lim-	COVID-19 pandemic. As hospitals
	tients and families under the	confidence high with the		itation is the homogeneity of the gen-	shifted toward social distancing and
Original Research:	COVID-19 pandemic's so-	findings.		der and racial and ethnic characteris-	restricted visitation policies, the
Nurses' Experi-	cially restrictive practices and	-		tics of the sample.	nurses in our study adapted how
ences of taking	policies.				they communicated with patients,
care for Patients					families, and other providers.
and Families Dur-					· · · · · · · · · · · · · · · · · · ·
ing the COVID-19					

Pandemic: Com-					
munication Chal-					
lenges					
8	This study aims to explore the	The recruitment process	A qualitative study design	The results of this study highlight an	There were four limitations in this
	experiences of school nurses	emerged in the inclusion	adopted the principles of the-	expected path from initial feelings of	study. School nurses' responses to
Lee R. et al.	during the onset of the	of 19 school nurses em-	matic analysis. Nineteen school	uncertainty and stress at the start of	the interview questions may have
	COVID-19 pandemic in Hong	ployed in Hong Kong, all	nurses were recruited to partici-	the pandemic, to a focus on precaution	been impacted by feeling chal-
2020	Kong.	of whom involved in indi-	pate in individual semi structured	and then reaping the benefits of this	lenged on their role and responsibil-
		vidual semi structured	interviews and shared their roles	preparedness and professionalism	ities in fighting this global outbreak
Hong Kong		interviews. They met the	and responsibilities during the	through heightened attention to their	with so many uncertainties. Two
		inclusion criteria and re-	COVID-19 pandemic.	roles with school communities.	school nurses requested PI not to
A qualitative study		cruited via the member			have their names included in any
of the experiences		contact list of the Hong			report documents. All the interviews
of school nurses		Kong School Nurses As-			were conducted via communication
during COVID-19		sociation.			tools due to social distance re-
pandemic as the					striction. Thus, data corroborated
frontline and pri-					from face-to-face interviews. Most
mary health care					of the school nurses in this study
professionals.					had more than 17 years of work ex-
					perience. Nurses who were
					younger might not have cared for
					SARS patients and they might have
					had more anxiety for their own
					health.
9	The aim is to identify how	A total of 897 partici-	We interviewed staff reports re-	The results have shown key areas that	A key limitation is that the study
	COVID-19 has impacted the	pants of nurses across	garding the impact of the	require attention and guidance during	numbers across groups are dissim-
Foye, U. <i>et al.</i>	ability of mental health nurses	a range of inpatient and	COVID-19 pandemic on mental		ilar or matched meaning that the

	to deliver care in community	community settings that	healthcare and mental health	the ongoing COVID-19 crisis. This in-	study lacked power to undertake
2021	and inpatient mental health	participated.	service users in the UK, using a	cludes the hardships of the swift shift	comparative statistical analysis.
	services in the UK.		mixed-methods online survey.	to remote working in community ser-	
UK				vices, ensuring the safe use of protec-	
How has COVID-				tive clothing in people's homes or on	
19 impacted men-				cramped wards, and the need for tar-	
tal health nurses				geted guidance and support for MHNs	
and the delivery of				working in inpatient settings, where	
mental health nurs-				they are faced with unique challenges	
ing care in the UK?				in maintaining social distancing and in-	
				teracting with mentally distressed and	
				confused patients.	
10	aims is to understand how	Sixteen nurses partici-	Exploratory study used qualita-	Exploratory study found four themes	Better understanding the experi-
10	nurses experience providing	pated caring for COVID-	tive research methods to investi-	that describe the experiences of	ences of nurses' during the pan-
Cadge, W et al.	care for patients hospitalized	19 patients during the	gate the experiences of nurses	nurses providing care to patients in	demic will require a larger, more
2024	with COVID-19 in intensive	first surge of the pan-	at a quaternary 1,000-bed hospi-	COVID-19 ICUs during the first surge:	unique sample from multiple institu-
2021	care units.	demic were selected via	tal during the first COVID-19	(a) challenges of working with new co-	tions.
USA	ouro unito.	purposive sampling.	pandemic surge in Boston, from	workers and teams, (b) challenges of	
		Participants worked in	April to June 2020.	maintaining existing working relation-	
Intensive care unit		ICUs of a quaternary		ships, (c) role of nursing leadership in	
nurses experience		1,000-bed hospital in		providing information and maintaining	
during COVID-19:		the Northeast United		morale and (d) the importance of insti-	
A qualitative study		States.		tutional-level acknowledgement of	
		Jiaies.		their work.	

11	aim was to identify the chal-	a total of 17 nurse par-	Qualitative descriptive study	The nurses stated the four following	It is recommended that similar
	lenges experienced by ICU		Quantative descriptive study	5	
Moradi, Y. et al.	nurse's onset of the provi-	ticipants working in in-		challenges throughout the provision of	studies in other contexts be con-
	sion of care for COVID-19	tensive care units were		care for COVID-19 patients: 'organi-	ducted to make the results more
2021	patients.	selected using purpos-		zation's inefficiency in supporting	generalizable. In addition, this was
Iran		ive sampling.		nurses', 'physical exhaustion', 'living	a short-term study, and prolonged
IIdii				with uncertainty' and 'psychological	engagement with the subjects can
Challenges experi-				burden of getting the disease'.	provide a valuable way to identify
enced by ICU					the present and future challenges.
nurse's onset the					
provision of care					
for COVID-19 pa-					
tients: A qualitative					
study					
12	The aim was to identify dis-	Individual semi-struc-	This descriptive qualitative in-	Four themes came in to conclusion	The results of other contextual fac-
Chen, F <i>et al.</i>	patched nurses' experiences	tured telephone inter-	quiry act in accordance with the	from the data: inadequate prepared-	tors were not considered. More
	of wearing full gear personal	views were done in a	COREQ guidelines.	ness for working with full gear personal	strategies could be adopted to fur-
2021	protective equipment to care	purposive sample of 15		protective equipment, full gear per-	ther examine transferability and de-
	for patients with coronavirus	frontline nurses who		sonal protective equipment stimulated	pendability by involving local front-
China	disease-2019 (COVID-19) in	were dispatched and		stress responses, coping strategies	lines nurses and dispatched nurses
Dispatched nurs-	Wuhan, China.	particiapted to the out-		and professional growth. Participants	from other provinces or municipal
es' experience of		break epicenters from		learned a great deal from problem-fo-	cities.
wearing full gear		March to April 2020.		cused and emotion-focused strategies	
personal protec-				to tackle challenges related to the pro-	
tive equipment to				longed wearing of full gear personal	
care for COVID-19				protective equipment for quality nurs-	
patients in China-				ing care and reduced risk of exposure.	
A descriptive qual-				They became more vigilant to the ad-	
itative study.					

				herence to evolving protocols and ap-	
				propriate training concerning full gear	
				personal protective equipment use.	
13	The objective of the study	The total of 152 nursing	Qualitative method	Respondents pronounced ongoing re-	This was a convenience sample of
	was to list down and docu-	home employees from		strictions on testing and sustained reli-	nursing home staff enlisted through
White, E <i>et al.</i>	ment the experiences of	32 states, including di-		ance on crisis standards for protracted	social media and professional net-
2021	these front-line health care	rect-care staff and man-		use and reuse of personal protective	works who may not be demonstra-
	professionals all through the	agers.		equipment. Administrators deliberated	tive of a broader population of nurs-
USA	pandemic.			the burden of tracking and applying	ing home employees, and could be
Front-line Nursing				sometimes confusing or contradictory	subject to answer bias. Unable to
Home Staff Experi-				management from numerous agen-	authenticate respondent employ-
ences During the				cies. Direct-care staff expressed fears	ment or position because we did
COVID-19Pan-				of contaminating themselves and their	not collect licensure or certification
demic				families, and expressed sincere empa-	details, or the names or addresses
donno				thy and concern for their residents.	of employers.
				They described undergoing burnout	
				due to increased workloads, staffing	
				shortages, and the emotional burden	
				of caring for residents facing signifi-	
				cant isolation, illness, and death. De-	
				fendants cited the presence or lack of	
				organizational announcement and	
				teamwork as important factors manip-	
				ulating their ability to work under chal-	
				lenging circumstances. They also la-	
				belled the demoralizing impact of neg-	
				ative media coverage of nursing	
				homes, contrasting this with the heroic	
				public recognition given to hospital	
				staff.	

					l
14	The presented work aims to	In this study, fifteen se-	A qualitative study with conven-	There were three groups and seven	A partial quantity of partakers was
14				<b>0</b> 1	
Deerterhi C	discover the nursing manag-	lected nursing manag-	tional content analysis using	sub-categories emerged from the data	purposefully selected. Therefore,
Poortaghi, S.	ers' perception of nursing	ers joined the purpose-	Granheim and Landman ap-	analysis: 1) administration of work-	its results cannot be comprehen-
Shahmari M, &	workforce management dur-	ful sampling method.	proach.	force recruitment (volunteer work-	sive to the whole community of
Ghobadi, A.	ing the outbreak of COVID-			forces, non-volunteer workforces), 2)	nursing managers. Due to the pos-
	19.			management of workforce arrange-	sibility of infection through infection,
2021				ment (flexible work schedule, redispo-	it was not possible to conduct face-
				sition of the workforce), and 3) man-	to-face interviews with all partici-
Iran				agement of workforce retention (pre-	pants. Therefore, it was problem-
Exploring nursing				ventive measures, motivational	atic to get the non-verbal re-
managers' percep-				measures, and psychological support).	sponses of the participants.
tions of nursing					
workforce man-					
agement during					
the outbreak of					
COVID-19: a con-					
tent analysis study					
15	The intention of this study	Nurses from one ICU	Qualitative, descriptive design	Passions experienced were subcate-	Characteristic to the nature of qual-
	was to scrutinize their experi-	participated in semi-	was castoff; theoretical frame-	gorized into anxiety/stress, fear, help-	itative research, the findings from
Gordon, J.,	ences caring for these pa-	structured interviews.	work was not nominated for this	lessness, worry, and empathy. Physi-	this study cannot be generalized to
Magbee, T. &	tients	The number of partici-	study because the researchers	cal symptoms were subcategorized	other settings and healthcare pro-
Yoder, L.		pants were eleven	were struggling to obtain an un-	into sleep conflicts, headaches, dis-	fessionals. Participants in this study
2020		nurses.	biased perspective of the nurs-	comfort, exhaustion, and breathless-	were from a single community hos-
			es' involvements.	ness. Care environment challenges	pital positioned in one region of
USA				were subcategorized into nurses as	Texas during the early phases of
The experiences				surrogate, incapability to provide hu-	the pandemic. Methods including
				man heartening connection, affected	multiple study sites over a longer
of critical care				role dying, personal protective equip-	duration may lead to substitute find-
nurses caring for				ment (PPE), isolation, care delay,	ings.
patients with				( ), <u></u> , <u></u> 2000),	, , , , , , , , , , , , , , , , , , ,

COVID-19 during				changing exercise guidelines, and lan-	
÷					
the 2020 pan-				guage barrier. Social effects were sub-	
demic: A qualita-				categorized into stigma, divergent	
tive study.				healthcare hero perception, additional	
				responsibilities, strained connections	
				with others, and isolation/loneliness.	
				Short term coping strategies were sub-	
				categorized into co-worker support,	
				family support, distractions, mind/body	
				wellness, and spirituality/faith.	
16	This literature goal to evalu-	130 nurses from Israel	A cross-sectional stud is used in	In this learning nurses reporting will-	Education, age and population
	ate the industrial satisfaction	were engaged to partic-	conducting the research.	ingness to leave the profession had	group were not associated with oc-
Savitsky, B., Ra-	during the pandemic of	ipate through several		lower mean occupational satisfaction	cupational satisfaction, certain of
domislensky, I. &	Covid-19 between the nurses	Facebook groups of		scores. At a time of crises, it is time to	that underrepresentation would not
Hendel, T.	in Israel, to shed light on cir-	nurses during June-		take care of those who take dangers	influence the results. There was
2021	cumstances of work and to	September 2020.		on the frontline. Covid-19 is a severe	overrepresentation of nurses who
Israel	recognize factors accompa-			disease, exposing healthcare workers	held managerial positions among
	nying with low occupational			and their families to infection.	the community nurses. Higher oc-
Nurses' occupa-	satisfaction.			Healthcare administrations should pre-	cupational fulfilment found among
tional satisfaction				vent any shortage of PPE which could	community nursing and their higher
				cooperation the basic values of the	amount in the study sample could
during Covid-19				nursing profession – taking care of	result in higher occupational satis-
pandemic				those who need care.	faction in this study than is reflected
					in reality.
					in rouncy.