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COVID-19 Ethical Decisions Encountered by Healthcare Professionals in Southwest Ohio

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The COVID-19 coronavirus has wreaked havoc on the world and medical community. Treating individuals during a worldwide pandemic is nothing short of heroic. With limited supplies and treatment options, healthcare professionals were forced to make ethical considerations when treating patients with COVID-19. The pandemic exposed stress in the healthcare system, leading to difficult ethical decisions such as providing access or denying access to treatment. Knowing these ethical considerations can assist healthcare professionals with practical policies for future pandemics. The key research question in this study explored how healthcare professionals in Southwest Ohio made ethical decisions related to who and how patients received treatment for COVID-19. This qualitative study used the punctuated equilibrium theory as the theoretical framework and semistructured interviews to investigate and understand ethical considerations encountered by the healthcare professionals in Southwest Ohio when treating patients with COVID. Interviews were transcribed, codes and themes were assessed. An analysis of the data from the fourteen interviews indicated stress related to the pandemic increased the number of ethical decisions for healthcare professionals. The COVID-19 pandemic created new ethical considerations such as the rationing of treatment, medication, and supplies by the federal government, which created barriers related to access. This study may provide positive social change in how healthcare professionals make ethical considerations to treat patients during COVID-19 and to prepare better healthcare policies for future pandemics.

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Dedication

I dedicate this doctoral dissertation to the memory of my father, Mark Lader, and Zena Huerta, mother to my wife, Dr. Miri Lader. The memory of our parents is such an incredible blessing. While we wish we had more time with them, we continue to find innovative ways to honor who they were.

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I acknowledge the unwavering support and love of my wife, Dr. Miri Lader. Miri was wholly encouraging and accommodating from our first discussion of going back to school to pursue my doctorate. I am forever grateful for our partnership for this and so many other reasons. I honor our three children, Zoey, Eliana, and Avi, who gave daddy time to complete my studies.

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Chapter 1: Introduction to the Study

Since early 2020, the world has been affected by the coronavirus pandemic (COVID-19). Facial masking, social distance, and quarantine are now consistent in daily vocabulary. Families have been devastated, and those who have survived may face long-term medical issues. From the first patient diagnosed with coronavirus at a hospital, healthcare professionals have encountered ethical decisions related to treatment. As of December 30, 2021, over 53 million patients have been infected, and over 800,000 Americans have lost their life due to COVID-19 (Centers for Disease Control and Prevention [CDC], 2021). Healthcare professionals have worked tirelessly to treat patients with COVID-19, and some have become infected themselves.

Challenges existed without a specific treatment option at the beginning of the pandemic. Patients were treated with recently approved drugs through emergency use authorizations and convalescent plasma courses, a time-tested process from previous pandemics of taking plasma from previously infected patients to infuse new patients affected by the coronavirus (Abd El-Aziz & Stockand, 2020; Chan et al., 2020). Ethical considerations were not just limited to the therapies. Supply chains for healthcare organizations were completely overwhelmed (Baumrucker et al., 2020). Access to personal protective equipment (PPE), ventilators, and other supplies has compounded the already stressful situation for healthcare professionals.

The United States federal government was not prepared for the pandemic. The lack of preparedness created a problematic situation for healthcare professionals to treat

patients with COVID-19. Healthcare organizations became overwhelmed with patients showing up for services, not knowing if they were infecting other patients and staff.

Chapter 1 emphasizes the background of the research study. The chapter includes the research questions, theoretical framework of the punctual equilibrium theory, and purpose of the study. Finally, the definition of the key concepts, assumptions, and the significance of the potential contribution to positive social change are considered in this chapter.

Background

COVID-19 created the perfect disaster for the United States in treating a mass communicable disease. Patients and healthcare professionals suffered a detrimental loss due to a critical lack of PPE, combined with limited treatment options. The lack of coordination and unpreparedness at all levels of government put healthcare organizations in a problematic situation (Subbian et al., 2021). There has also been a lack of preparation from public organizations to provide adequate support for COVID-19 testing, let alone treatment options, to patients diagnosed with COVID-19 (Barberia et al., 2021). As all levels of the government worked to incorporate new policies to assist healthcare organizations in treating patients with COVID-19, healthcare professionals bore the brunt of the pressure of the pandemic. Nonessential procedures were postponed or canceled to save hospital beds, preserve PPE, and hospital supplies to create a priority for COVID-19 patients (Howard & Kohlmeier, 2021).

Capacity and staffing issues fostered an environment for ethical issues in treating patients with COVID-19 to arise. Healthcare professionals worked tirelessly treating

patients with no end of the pandemic insight. Liability concerns in treating patients have presented an ethical dilemma. With limited treatment options, healthcare professionals were concerned with their liability should something negative transpire when treating patients with COVID-19. Patients received treatment outside of the hospital and atypical conditions, which has created more stress for healthcare professionals (Howard & Kohlmeier, 2021).

Ethical concerns related to COVID-19 surround treating patients with infectious diseases because it increased the risk of infection. Healthcare professionals worried about their health as many have been infected treating patients inflicted with COVID-19 (Morley et al., 2020). Becoming infected during work only exacerbates the staffing struggle healthcare professionals face. With inadequate supplies and the lack of options to treat COVID-19 patients, healthcare professionals made ethical decisions that directly impacted and affected other patients who may not receive treatment (O'Neal et al., 2021).

This ethical decision-making process contributed to even more stress on healthcare professionals during the pandemic. The tension of making the correct decision for each patient's treatment plan for COVID was exemplified with insufficient treatment and supplies. Healthcare professionals wanted to provide the best care for the patient amid a pandemic and unideal situation that impacted the decision-making process to treat COVID-19 patients (Bar et al., 2021). Denying or delaying care regardless of the reason contributed to the ethical decision-making process. It was already stressful to care for patients in nonpandemic times. Additional barriers made the decision-making process even more difficult.

Problem Statement

Currently, the United States has been decimated by the COVID-19 pandemic. With no definitive cure to treat the virus and inconsistent vaccine distribution, ethical decisions affected access to treatment. However, healthcare professionals in Southwest Ohio decided which patient may benefit from treatment. At the same time, another patient was denied access to treatment. This problem impacted U.S. communities because this pandemic required healthcare professionals to treat patients affected by the coronavirus. According to the CDC (2021), there have been more than 1.5 million COVID-19 patient cases and over the 20,000 deaths in Ohio. This fact is significant because communities around the country continued to see an increase in COVID-19 patients and an increase in COVID-19-related deaths. The lack of preparation and healthcare infrastructure compounded the ethical issues related to COVID-19 (Amri & Drummond 2020).

Many possible factors contributed to this problem of new ethical decisions: different decision-making processes, state of patient's comorbidities, treatment supply, collection of ventilators, and access to the vaccines. This study contributed to the body of knowledge specific to the region of Southwest Ohio to address this problem by investigating the ethical considerations healthcare professionals face while treating patients during COVID-19. It was important to recognize the gap in the literature regarding ethical issues facing healthcare professionals in Southwest Ohio and the impact on treating patients during a pandemic. Using a public policy approach to examine the

issue of ethical considerations enabled the research to be focused on the social implications of the healthcare professionals.

Patients have suffered from the pandemic and have few therapy choices to support their battle with COVID-19. Access has been limited to investigational drugs. Government intervention has created confusion, and new government regulations have restricted opportunities for treatment which have compounded the ethical considerations process. Rationing medication to healthcare facilities limited the number of patients treated. Patients' decision not to be vaccinated created new ethical decisions when treating these patients. For the last 2 years, the stress of treating patients has created ethical decisions related to treating COVID-19 when they arrive at the hospital with contagious high-risk respiratory issues (Miljeteig et al., 2021). This research may contribute to positive social change in how healthcare professionals in Southwest Ohio make ethical considerations to treat patients during COVID-19.

Purpose of the Study

The purpose of this qualitative study was to identify and understand the ethical considerations healthcare professionals make in treating patients during the COVID-19 pandemic (Suryadi & Kulsum, 2020). Identifying and understanding how these healthcare professionals make these ethical decisions through a decision-making ranking process or metrics related to treatment during COVID-19 added to the body of knowledge about the ethical decision-making process for future pandemics.

Research Question

How did healthcare professionals in Southwest Ohio make ethical patient healthcare decisions related to which patients are treated and the manner of treatment for COVID-19 infection since March 2020?

Framework for the Study

The theories and concepts surrounding this study included that approving public policies is typically constant. With the separation of powers in the U.S. government, policies predictably faced gridlock through an approval process. Weible and Sabatier (2018) explored the punctuated equilibrium theory to examine what happens to public policies when the major event causes a change in the structure. Baumgartner and Jones first presented the punctuated equilibrium theory in 1993 to demonstrate when a specific event upends the policy process (Baumgartner & Jones, 1993) The response to COVID-19 demonstrated how unprepared communities were to tackle such a pandemic (Amri & Drummond, 2020). The punctuated equilibrium theory exposed the stability of the policy decisions and agenda setting when an outside factor disrupts the system (Cairney, 2013). COVID-19 created mass chaos to our political system. Chaos created conflict among the population. People not believing the seriousness of disease, refusing to wear masks or be social distant, and spreading misinformation only confounded the mayhem.

The lack of preparation led to even more significant ethical considerations for healthcare professionals. The punctuated equilibrium theory was a possible justification for causing sweeping changes in the approval pathway to get a vaccine to market. The federal government's inconsistent reaction to the COVID-19 virus has created even more

concerns as it holds control over national public policies (Weible & Sabatier 2018). The ability to obtain treatment plus logistical barriers created supply issues that led healthcare professionals to decide who receives treatment. Organizations were designed to be continually searching for information (Koski & Workman, 2018). The media and the government shared misinformation throughout the pandemic, which affected policy decisions.

Nature of the Study

This qualitative study used a generic qualitative research design. The qualitative approach was a suitable choice for examining the ethical considerations for healthcare professionals in Southwest Ohio in treating patients during COVID-19. I chose this design and method to develop a small study to explore the healthcare professionals' ethical dilemmas when there are limits on treatments and devices to support coronavirus patients. The generic qualitative design was flexible in practice to describe real-world problems (Ravitch & Carl, 2016). The justification of using a generic qualitative research design to research COVID-19 considered the complexity of the COVID-19 would look at the ethical considerations on a small scale. The study design can be used to describe a phenomenon or occurrence (Cooper & Endacott 2007) The study design collected essential data to evaluate each professional's alignment in the ethical decision process and guide the research to answer the study question. The study included interviews with multiple choice and open-ended questions.

Definitions of Terms

Below is a list of definitions for key terms in the study.

COVID-19: "Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus" (CDC, 2021).

Cognitive bias: Thoughts and beliefs to lead to mistakes in decision-making process. (Lechanoine & Gangi 2020)

Decision-making: the process of gathering information, weighing risk and benefits, using judgment to resolve the situation related to healthcare treatment (Pope 2018).

Dilemmas: a challenging situation with results that could be unfavorable (Ong et al., 2012).

Drug Repurposing: using a drug to treat a different disease than it has initially been approved (Langedijk et al., 2015).

Ethics: the moral rules that manage their decision-making process in treatment patients (Markose et al., 2016).

Healthcare: the act of providing medical treatment to a patient (Zare et al., 2021)

Healthcare Professionals: including but not limited to physicians, nurses, therapists, pharmacists, hospital administrators (Claeys et al., 2021).

Hospital: healthcare facility treating patients both as inpatient and outpatient status (World Healthcare Organization, 2009).

Healthcare setting: location where healthcare is administered, including but not limited to hospitals, home health care, healthcare provider's office, nursing, or extended care facilities (CDC, 2021)

Off-label Use: using a drug to treat a disease other than the drug that was approved for use (Top et. Al 2020)

Pandemic: a highly transmittable disease that affects many people throughout the world. (CDC, 2021)

Treatment: providing medical care or giving medicine to a patient. ("Medical Treatment Beyond First Aid," 2018.)

Vaccine: a treatment used to accelerate antibodies to create immunity towards an infection's disease (CDC, 2021).

Assumptions

In qualitative research, every researcher has a past full of lived experiences and preconceived notions. As a fellow healthcare professional, I believed in ethical decision-making for treating patients with COVID. The study was designed to assume that the qualitative approach is a significant way to determine ethical decisions encountered by healthcare professionals in Southwest Ohio when treating patients with COVID. The theoretical framework punctuated equilibrium theory is assumed to be related to the impact of ethical decisions healthcare professionals encounter in treating patients with COVID. An assumption existed that each study participant would participate free from coercion or pressure. It was also assumed that participants would answer each interviews question honestly. Creating an interactive, reliable conversation between myself and the participants assumed that a comprehensive review of interviews questions answers fulfilled the research question and study purpose.

Limitations and Delimitations

The study's scope was limited to the lived experiences of the ethical considerations of healthcare professionals in Southwest Ohio encountered with treating patients with COVID. The specific population interviewed were members of the Greater Dayton Area Hospital Association. This study focused on ethical considerations made during the timeline of the COVID pandemic. The research developed from this study will hopefully lead to future research and assist healthcare professionals in future pandemics. Transferability of this study existed, and future studies can be replicated with ethical considerations different healthcare professionals throughout the country encountered during the COVID pandemic.

This generic qualitative inquiry led to new prospects to explore the topic further. With healthcare changing at a record pace, a case study would only show data at a specific period. Many issues arised from sampling and data collection. Collection data from various sources created a problem of transferability (Riege, 2003). Developing a database to make it easy to share data was beneficial. Internal validity presented an issue to the study (Riege, 2003). It was easy to find research related to my research. Several constraints existed during my research. Access to data was a consistent limitation. I had to overcome the restrictions when a respondent may decide not to be on camera. There were issues with access to participants as some healthcare professionals may not want to respond to the interviews request, requirements for storing data, separation of roles, or other ethical considerations that may needed to be addressed. Most of the positions were hospital-based, but the employee has not been involved in the decision-making process;

their knowledge of the ethical decisions may factor in their responses. The Zoom video and audio needed to be free from technical issues so transcription can be completed to the narrative structure. This study was entirely voluntary, and respondents may have decided not to answer questions. Lastly, the sample population was limited to healthcare professionals affiliated with Greater Dayton Area Hospital Association member organizations.

Significance

This research study promoted positive social change through the information that may be used to change public policy for healthcare professionals faced with ethical decisions connected to the treatment of patients during a pandemic. Understanding these ethical considerations may lead to future research clearing barriers to bringing appropriate treatment and vaccines quicker to market and support supplies to serve the community. Millions of Americans were anxiously awaiting to receive a vaccine or available treatments should they be hospitalized. The United States needs to be proactively prepared for future pandemics and decrease ethical considerations with better consideration during the treatment of affected patients. Ethical considerations for treatment patients occur daily at healthcare organizations. Organizations need to be prepared before the first patient arrives for treatment during a pandemic. The significance of this study is that it added to the knowledge base by learning what to look for regarding ethical considerations so healthcare professionals can be more attuned to ethical behaviors experienced during the COVID-19 pandemic. The insight of the healthcare

professional was invaluable to their colleagues to give the best care possible to their patients.

Summary

The emphasis of this study was on the ethical considerations encountered by healthcare professionals in Southwest Ohio in treating patients during the COVID pandemic. Chapter 1 described the research problem and explains the background of the study population. Chapter 2 of this dissertation provides an exhaustive literature analysis preceded by a review of the study purpose and problem. The literature review demonstrates the role of ethics in the decision-making process in treating patients diagnosed with the novel coronavirus.

Chapter 2: Literature Review

Currently, the United States has been being decimated by the coronavirus for the last 22 months. With no definitive cure to treat the virus, ethical decisions have affected access to treatment. However, healthcare professionals in Southwest Ohio decided who benefited from therapy. At the same time, another patient was denied access to treatment. This problem impacted our communities because this pandemic requires healthcare professionals to treat patients affected by the coronavirus. According to the CDC (2021), there have been more than one million COVID-19 patient cases and over 19,000 deaths in Ohio. This fact was significant because communities around the country continue to see an increase in COVID-19 patients and an increase in COVID-19 related deaths.

The lack of preparation and healthcare infrastructure compounded the ethical issues related to COVID-19. (Amri & Drummond, 2020: Hellmann et al., 2020). Many possible factors contributed to this problem: different decision-making processes, state of patient's comorbidities, treatment supply, collection of ventilators, and access to the vaccines (Jeffrey, 2020). This study contributed to the body of knowledge specific to the region of Southwest Ohio needed to address this problem by investigating the ethical considerations healthcare professionals face while treating patients during COVID-19. The importance of recognizing the gap in the literature regarded ethical issues facing healthcare professionals in Southwest Ohio and the impact on treating patients during a pandemic. Using a public policy approach to examine ethical considerations enabled the research to be focused on the social implications of the healthcare professionals. Patients

suffering from the pandemic had few therapy choices to support their battle with COVID-19 as access was limited to ventilators, approved drugs, and investigational drugs.

Government intervention has created mass confusion and access issues. New government regulations and policies have restricted opportunities for treatment which have compounded the ethical considerations process. This research may provide positive social change in how healthcare professionals in Southwest Ohio make ethical considerations to treat patients during COVID-19. This qualitative study aimed to understand healthcare professionals' ethical considerations during a COVID-19 (Suryadi & Kulsum, 2020). Understanding how these healthcare professionals made these ethical decisions through a decision-making ranking process or metrics related to treatment during COVID-19 would add to the body of knowledge about the ethical decision-making process for future pandemics.

The purpose of this qualitative study was to close a gap in the current literature on the topic of the ethical decision-making process Southwest Ohio healthcare professionals confronted in treating patients during the COVID pandemic. Healthcare professionals were under enormous pressure to treat patients with limited supplies and limited treatment options. Current research showed healthcare professionals were forced to make critical choices of which patient received treatment. The coronavirus pandemic did not definitively relate to only the Southwest Ohio region. The significance of this research study was that the data and ensuing evaluation created information that

- increased an understanding of ethical decisions encountered during with stakeholders regarding,

- demonstrated the variability of healthcare workers and their ethical decision-making process,
- served as a foundation for supporting patients in future pandemics, and
- inspired discussion amongst healthcare leaders about treating patients during a pandemic.

The theoretical framework utilized for researching this topic was the punctuated equilibrium theory. A more detailed explanation of the theory is presented later in this chapter. A review of the current literature on the ethical decision-making process, healthcare professionals, coronavirus, and treatments are included in this chapter.

Literature Review Strategy

This qualitative study focused on ethical decisions healthcare professionals in Southwest Ohio have encountered during the COVID pandemic. The research was completed using the Walden University Library databases. With a topical study of COVID, most of the sources of peer-reviewed articles were published within the last 5 years. Few articles fall out of that time window as punctuated equilibrium theory was first published in 1993 and subsequent articles related to the theoretical framework were published before 2017. A comprehensive search was conducted using keywords related to the study within the Walden University databases include EBSCO, ProQuest Central, and Sage Publications. Keywords and phrases utilized in this research included COVID, COVID-19, coronavirus, cognitive bias, decision-making, decisions, dilemmas, drug repurposing, ethics, ethical considerations, healthcare, healthcare professionals, hospitals, off-label use, pandemic, treatments, vaccines.

Theoretical Foundation

The punctuated equilibrium theory was the theoretical foundation for this study. The process of creating and approving public policies was typically constant. With the separation of powers in the U.S. government, policies predictably faced gridlock through an approval process. The COVID-19 pandemic has completely changed so many aspects of our daily life and changed the course of the country's public policy process (Hogan et at. 2022). This pandemic has affected the U.S. federal government's and states' responses to combating pandemics as well being prepared for future pandemics. The COVID-19 pandemic forced all levels of government in the United States to create new policies to limit risk among their citizens (Mouratidis, 2021). Governments needed to provide access to COVID-19 tests, PPE, treatment for patients diagnosed, and a pathway for vaccine creation.

Baumgartner and Jones first presented punctuated equilibrium theory in 1993 to demonstrate when a specific event upends the policy process. The response to COVID-19 has shown how unprepared all levels of government were to tackle such a pandemic (Amri & Drummond, 2020). Weible and Sabatier (2018) explored the punctuated equilibrium theory to examine public policies when a major event causes a change in the structure. The lack of preparation led to even more significant ethical considerations for healthcare professionals. The coronavirus did not just disrupt public policy, it created a worldwide public health emergency (Gamboa-Antiñolo & Fernando-Miguel, 2021). The punctuated equilibrium theory provides a possible justification for causing sweeping changes in the approval pathway to get treatments and ultimately a vaccine approved by

the Food and Drug Administration (FDA). Treatments and vaccines received emergency use authorization to make them available faster to the American public. The federal government's inconsistent reaction to the COVID-19 virus created even more concerns as it holds control over national public policies (Weible & Sabatier 2018). The ability to obtain appropriate treatment plus logistical barriers create supply issues led professionals to decide who receives treatment.

With limited access to supplies such as PPE and ventilators, healthcare professionals suddenly needed assistance from government entities to provide access to items that had been typically available through their organization's supply chain. Politics rarely was involved in the decision-making process for these purchases. Purchasing was typically handled by each organization directly and government involvement created new issues and barriers to limited supplies to healthcare organization (Amri & Drummond 2020). With constant adjustments to access to supplies and treatment for COVID-19 patients, policy changes have become a normal part of daily life. New research detailed the use of masks/social distancing and the efficacy of certain treatments led governments to create new policies to deal with the pandemic (Baumgarter & Jones, 1991).

Baumgarter and Jones (1991) conferred on the issue of policy image and its impact on the decision-making process. When a policy is created, there are supporters and opponents. In case of COVID-19, the policy image was steadily negative as the federal and state governments were not prepared to provide adequate support to healthcare organizations. With many Americans affected by the coronavirus and needing immediate medical care, many believed the government failed them. The role of media

affected the COVID-19 policy image and produced countless stories that demonstrated the failings of the government's attempt to curb the pandemic. Media bias played a role in policy formation. When social media and mainstream media share misinformation regarding the COVID-19 pandemic, citizens forward this information as truth, leading to ineffective policy compliance (Mohamed et al., 2021). The misinformation spread has had a negative effect on the policy image.

Literature Review Related to Key Variables and Concepts

Based on the study research question, the literature review is presented under the following headings:

1. Changes to Ethical Decision-Making Process During COVID-19
2. Healthcare Professional Treatment-Ethical Considerations
3. Healthcare Professional Treatment-Ethical Decision-Making
4. COVID Treatments Availability-Ethical Considerations

Changes to Ethical Decision-Making Process During COVID-19

COVID-19 must be explored to determine the relationship between the dynamic of a pandemic compared to typical ethical considerations healthcare workers make daily. Since this was not the first pandemic experienced, reviewing past massive outbreaks for lessons learned and best practices is important (del Río et al., 2020; Thomas et al., 2007) COVID-19 changed our daily habits and forced the world to act and treats patients differently. Masking in public spaces and social distancing became the normal behavior. COVID-19 has also greatly affected supply chains and access to treatments, some unproven.

Cognitive bias played a role in the decision-making process for healthcare professionals in treating patients with COVID-19. Every healthcare professional had inherent biases. At the beginning of the pandemic when the COVID-19 testing was unavailable or unreliable, there were many patients who were misdiagnosed. Patient presented with COVID-19 symptoms, but without appropriate testing, there was not confirmation that patients had COVID-19. The unintended bias misdiagnosed COVID-19 as a flu or a cold. With a misdiagnosis a suitable treatment plan was not completed to address the proper illness (Mohamed et. al., 2021). This led to anchoring bias where a healthcare professional is not willing to change an initial diagnosis of a patient even after tests are returned that show an alternate finding (Coen et al., 2021).

The location of where a patient is tested for COVID-19 led to bias. If a patient is tested in the hospital after admission, it could lead to statistical bias. It would create a variability of where the patient was infected (Mohamed et al., 2021). Contact tracing became more difficult. It led to inaccurate data where a community is promoting a higher positivity rate. An increase of COVID-19 positive patients in healthcare organizations, pulled more resources to support this patient population.

Coen et al. (2021) presented the concept of "COVID blindness" as healthcare professionals' cognitive biases are impacting the healthcare decision-making process. With barriers to treatment and supplies to support COVID-19 patients, healthcare professionals made inaccurate judgment decisions related to treating patients. With an increasing patient load and constant changes related to the treatment for COVID-19 patients, healthcare professionals had to mitigate their own stress and biases while

treating patients. Misdiagnosing of symptoms, bias and prejudice impeded care and can demonstrate an unintended bias (McGuire et al. 2020).

Yale et al. (2021) reviewed the concept of the confirmation bias related to the diagnosis of the COVID-19. With patients presenting with different symptoms, providers were quick to diagnose a patient if some indicators are not currently present. COVID-19 presented differently in children compared to adults and some children became ill after being infected with COVID-19 (Yale et al., 2021).

Bias towards unvaccinated patients impacted the decision-making process of the treatment of COVID-19 patients. The self-selection of being unvaccinated came with major perils. Like patients who continue to smoke while being treated for lung cancer, unvaccinated patients made a lifestyle choice that is directly impacting their health. Patients who are choosing to be unvaccinated put the community risk and increased the ability to become infected with COVID-19. Additionally, unvaccinated patients utilized more hospital resources specially in intensive care units (ICUs) compared to vaccinated patients (Iserson, 2021). When the unvaccinated patients presented at a healthcare organization, an ethical decision was considered based on their vaccination status and the impact that status has on the healthcare treatment the patient received. Bias towards other lifestyle choices of patients led to ethical considerations for a healthcare professional. If a patient was non-compliant taking medication in the past, the healthcare professional responded differently if they are prescribing medication.

In Spring 2020, hospitals started eliminating elective procedures, and other surgeries were given less priority (Mohideen & Yiwey, 2020; Parchand et al., 2020;

Sciubba et al., 2020; Verduzco et al., 2021). Hospitals wanted to free up capacity and supplies should their community get a surge of COVID-19 patients. Having elective procedure patients in the hospital also created more risk for infection. Canceling elective procedures was also an ethical consideration. As healthcare organizations made the decision to give preference to emergent and COVID-19 cases, patients who were scheduled for elective procedures had their appointments canceled (Brown et al. 2021). Not having the elective surgery completed could have been a detriment to the patients' health.

COVID-19 changed how pharmacists dispensed medications (Cox, 2021). Pharmacists were being asked to provide treatments that had been unproven and not fully tested to treat COVID-19, which created a divisive ethical decision. Hospital referrals have been affected due to COVID-19. Bringing additional COVID-19 patients through referrals increased the risk for their organizations (Westerduin et al., 2021). Hospitals were already dealing with capacity issues and taking on more referrals required healthcare organizations to be more selective with the acceptance of patients from external facilities. Limited capacity in ICUs also impacted the decision of healthcare organizations to accept referrals. COVID-19 patients needed specialized advanced care treatment and intensive care for treatment. Those units were limited in most healthcare organizations and some hospitals were required to open more "COVID-19" units to treat an expanding population of infected patients. More COVID-19 units required more PPE and access to more ventilators.

One major hospital service that was impacted by COVID-19 was transplantation procedures as many patients' surgeries were put on hold (Azzi et al., 2021). Patients receiving a transplanted organ were already immunocompromised and even more susceptible to becoming infected by the coronavirus. Putting these procedures on hold created an ethical dilemma as these patients need lifesaving procedures only to possibly be infected with coronavirus. Any infection also delayed them from getting their transplant procedure completed. Halting these procedures creates ethical issues but continuing them creates ethical issues as well.

Hospitals needed to put all their focus and energy into treating COVID-19 patients. The elimination of other procedures profoundly impacted the hospital operations and led to the delay of care for several patients (Mishra & Baba, 2021; Prager et al., 2021; Scuibba et al., 2020). As expected, there are major financial and staffing implications when healthcare organizations paused elective and other scheduled procedures. Limited surgical schedule and priority placement of patients meant the difference in life or death (Harkin, 2020).

Reproductive procedures were given less of a priority during the pandemic. Some abortions, which come with separate additional ethical considerations, were halted during the pandemic (Gross et al., 2020). The term *elective* for specific healthcare procedures became very subjective. While a healthcare organization may deem a particular procedure elective, a patient in desperate need of services may disagree. Pausing other reproductive procedures such as in vitro fertilization, created an additional ethical

dilemma as it inhibited patients who are trying to build a family when new pandemic factors created barriers to conceive.

When patients started getting infected by the coronavirus, healthcare facilities that treat chronic comorbidities, such as dialysis centers, carefully limited patients' access. Organizations needed policies to protect staff by providing supplementary PPE and needed to have policies in place to keep patients from being infected. Mitigating risk became a top priority for healthcare organizations. Care for chronic kidney disease patients, and other preexisting conditions required regular healthcare treatments, which led to more ethical decisions for healthcare professionals. (Cousins de Vries & Dening 2021; Herraro, 2020; Martin et al., 2020) An unintended consequence of the pandemic resulted in missed dialysis appointments should a patient become infected with COVID-19.

The novel coronavirus demonstrated the need for accurate public health data. Positivity rates at testing sites provided valuable information. Knowing the vacancy of ICU beds leveraged community resources. Access to hospital capacity, treatment availability, testing, and infection rates was necessary to stop the spread of the virus. Sharing information about the availability of supplies, hospital beds and ancillary assistance was also needed to support the community. Without accurate information, it was near impossible to combat COVID-19. To address the disease, communities needed to be more transparent and shared their data with public health entities (Subbian et al., 2021). Accurate data was essential to treating patients who currently have COVID-19 and limited the opportunity for future patients to become infected with the virus. An ethical

issue of privacy existed related to contact tracing. Notifying someone who may be infected can be difficult conversation. Some people may decide not to share their positive infection statutes, which put their family and community members at risk. People were unknowingly infecting their family, friends, and coworkers. Countries such as Taiwan, used cell phone technology to track infected citizens and confirmed their whereabouts to ensure all quarantine guidelines were being followed (Subbian et al., 2021). Privacy concerns and the protection of patient health information have led the United States to not follow in the same compliance procedures as Taiwan. In the United States, the Health Insurance Portability and Accountability Act of 1996 (HIPAA) provides protection to patient healthcare information.

Healthcare Professional Treatment-Ethical Considerations

Doctors are trained to abide by the Hippocratic oath of "to do no harm." Still, there are many casualties during a pandemic as there was not sufficient treatment or ventilators to provide support to every patient who needs it (Jaziri & Alnahdi, 2020) Ethical decisions have real and sometime dire consequences, and many people will die in a pandemic if there are limited treatments and supplies available. Healthcare workers considered the risk and benefits of every device or treatment to support each patient (DePergola, 2020). The ethical considerations that healthcare workers encounter was very stressful. The stress of these decisions has had a profound impact regardless of if you get treatment. There was also an urgency to provide adequate care as patients continued to get worse from COVID-19 (Shaw, 2021.) The pressure of the treating COVID-19

patients continued to lead to more ethical dilemmas. Healthcare professionals wanted to do the best for their patients, but with limited options, the stress was overwhelming.

Healthcare professionals were forced to make decisions to treat patients with COVID-19 who were unable to communicate through ventilation, limited capacity, or neuro deficiency. The inability to communicate with the patient created even more stress for the healthcare professional. Many times, no family or guardian were present due to visitation restrictions which only added to ethical dilemma. Making a decision that may not be align with the family's was potentially problematic. With a lack a clear protocol to treat patients, healthcare professional was presented with an ethical dilemma for each patient (Romdhani et al., 2021).

The impact of the stress both emotionally and physically on the healthcare decision-makers as required to make these important decisions. (del Río et al., 2020) Relationships with patients played a role in ethical judgment. Watching patients succumbed to COVID-19 is strenuous. Many times, healthcare workers were the only ones in the hospital besides the patients when they died of COVID (Morley et al., 2020). They continued to demonstrate a willingness to care for their patients, even risking their health as they could be infected with COVID-19. The ethical decision of potentially harming yourself to care for a patient complicated an intricate ethical dilemma (Sperling, 2021).

Healthcare organizations such as hospitals and long-term healthcare facilities have been devastated with staff becoming infected with COVID-19. The coronavirus created even more issues when treating vulnerable patients. Ethical decisions related to

end-of-life care for a patient treated for the COVID-19 (Chase, 2020). Healthcare professionals worked with the patient/family when to draw care when patients do not respond to available treatment. When does a patient's age become a factor in the decision-making process? The concept of ageism influenced the care a patient receives. Healthcare professionals had a moral obligation to treat every patient. Using a patients age as basis for care was problematic.

Long term care facilities needed to create new rehabilitation policies to treat patients post-COVID-19. Ethical decisions began to arise to treat these patients as some of the patients who needed acute long term care services were not covered by insurance (Verduzco et al., 2021). As many older adults became infected with COVID-19 while residing in long-term care and assisted living facilities, the ethical considerations were compounded by considering the patient's age (Chase 2020; Rylett et al., 2020).

The mental capacity of the patient created an ethical issue for healthcare professional when providing treatment for COVID-19. During the COVID-19 pandemic, the issue was intensified as limited capacity patient may be unknowingly spreading the virus (Fahed et al. 2020). Treating this patient population came with inherent risks. A healthcare professional considered the dilemmas of not only treatment options but their own health and safety. Protocols had to be in place, so patients were not unnecessary infecting other patients. The refusal of COVID-19 testing created new dilemmas as led to more infections.

Vulnerable populations such as pregnant women created extensive issues related to treating patients with COVID. Healthcare professionals were concerned with treating

the mother and the baby. There was also concern presented with pregnant women getting the COVID vaccine. Pregnant women were an exclusionary criterion for the clinical trials testing the COVID vaccine (Chervenak et al., 2021; Minkoff & Ecker, 2021). The complications could occur should the mother become infected, making ethical decisions that impact both the mother and the unborn baby. The healthcare professional had a responsibility to share information with the mother so there is an understanding of the potential risks to the fetus. The patient may decline treatment as suggested. As treatment protocols have adapted throughout the pandemic, some patients chose not to accept the new treatment regimen. Appropriate discussions between the patient and healthcare professional must take place to ensure patient is aware of the potential risks and benefits of declining treatment (Welie & ten Have, 2014). When a patient chose to deny care, it presented an ethical situation for the healthcare professional. The patient may be suffering from COVID-19, but still wanted to have autonomy to control what treatments they receive.

Healthcare Professional Treatment-Ethical Decision-Making

Having ethical conversations related to patient treatment before the ethical decisions has been shown to assist in the treatment process. (Bartholdson et al., 2020). Appropriate stakeholders should be engaged in the process when making decisions related to the treatment of COVID-19 patients. The perspective of the healthcare worker depended on their role in the organization. A diverse background of the stakeholders were involved in the decision-making process related to the ethical considerations made with limited supplies. (Baumrucker et al., 2020). New hospital policies were created to

address supply chain issues during COVID-19. These policies affected the decision-making process as healthcare workers treated patients in the hospital as healthcare professionals had limited access to supplies to treat patients.

Some hospitals decided to withdraw care and allocate resources to patients who would better benefit from the treatment (Antommaria et al., 2020; Miljeteig et al., 2021). Healthcare disparities existed pre-COVID and were magnified during the pandemic. Underserved communities saw their access to healthcare diminish even more, which led to more deaths associated with the coronavirus (Day, 2020.) Minority groups, underserved communities, and unemployed workers in the United States were disproportionally affected with COVID-19 (Verduzco et al., 2021). While hospitalization may have been covered, without access to insurance, long term rehabilitation from COVID-19, patients may not have been covered for these services. Unwanted pregnancies and other obstetrics issues were highlighted during COVID as many healthcare providers deemed termination to elected procedures (Bruno et al., 2021).

Resource allocation became another way of describing rationing. Patients with disabilities were often neglected as government entities and organizations created rationing guidelines. Healthcare professionals made ethical decisions by factoring in patients' disability and quality of life in whether they received treatment related to COVID-19 (Sabatello et al., 2020). With a limited supply of ventilators and staff trained to care for COVID patients on ventilators, ethical decisions were made that affected patient outcomes (Drake et al., 2020). Prioritization policies were needed to be created determined which patient would get access to the ICU bed or ventilator. Healthcare

organizations needed to provide healthcare professionals a transparent policy so the staff and the public would understand the process for allocation (Cardona et al., 2021). If the policies were not transparent, it led to non-compliance and further complicate ethical considerations for the healthcare professionals.

In May 2020, the federal government started distributing the drug Remdesivir to the states, then forwarded limited supplies to hospitals. Remdesivir was one of the first drugs approved by the FDA through an Emergency Use Authorization. The inclusion criteria were that the patient needed to be suffering from a severe case of COVID-19. What did "severe" mean? If the patient was hospitalized due to COVID-19, was that considered severe? The healthcare professional making the judgement of the severity of the case was dealing with an ethical consideration. Determining if a patient was truly eligible, and the prioritization of patients also created more ethical considerations. This drug release was an early example of drug rationing and ethical decision-making for the treatment of coronavirus patients (Lim et al., 2020). Creating an allocation process based on the best result for the patient was challenging. Regulating the amount of Remdesivir each healthcare organization created multiple issues and concerns. If a healthcare organization began retaining supplies of Remdesivir, it restricted the amount to other organizations.

Drug repurposing was considered a possible treatment option during the early stages of the pandemic. Drug repurposing was a process where a drug has been approved for treatment a specific disease and now being used as treatment for a different disease (Ino et al., 2021). Drug repurposing has several ethical issues. First, there was a supply

concern. If there is restricted availability of the treatment, who had priority? The patient suffering from the original approved disease or COVID-19. Additionally, by not researching potential side effects of drug utilization, healthcare workers were taking a risk by prescribing a repurposed medication. There may long term effects as result of taking this medication for the new disease. The lack of research of repurposed drugs created another ethical consideration for healthcare workers. The cost of the repurposed drug was also financially prohibited. The risk and benefit to the patient was thoroughly considered with the use of repurposed drugs.

Sending patients to palliative care and long-term care facilities became very difficult during the COVID pandemic and created more ethical situations. With many patients who succumbed to COVID were infected at a nursing home or long-term care facility (Parekh de Campos & Daniels 2021). Patients going back to these facilities after being treating at a hospital was not an ideal situation especially if they were initially infected at a long-term care facility. Patients and staff were at risk of being infected based on these decisions. When the decision has been made to withdraw or decline care, the healthcare professional made an ethical and clinical evaluation that any available treatments at the hospital would not help the patient in their current state. Staff at palliative care facilities had extensive experience with end-of-life care but adding the stress of the pandemic made a difficult encounter even more complex.

The availability of ICU beds also led to ethical decisions for healthcare professionals. It was a supply versus demand situation. There were a finite number of ICU beds at healthcare facilities. Patients required more specialized treatment than the

typical hospital floors. Hospitals were forced to expand operations to serve this patient population. With capacity issues, healthcare organizations reached out to partners in their region to inquire about bed availability. One patient getting access to an ICU bed means other patients could not get the care needed for specific treatment for COVID-19 (Marinelli et al., 2020). Health systems in the United States were not prepared to treat the number of patients who needed acute care related to COVID and this dilemma extended to more ethical considerations. The scarcity of ICU beds combined with a shortage of the ventilators created. Situations occurred where some patients were unable to get the care, they needed to be treated for COVID-19. Extended stays in emergency rooms due to staffing and capacity issues allowed for delayed or denied care to remedy a patients COVID1-9 infection.

To minimize risk, healthcare providers expanded their telehealth services as they began to more appointments through web conferences instead of face-to-face appointments with patients to mitigate the risk of the COVID-19 infection (Chin & Palchik, 2021; Kaplan, 2020). These telehealth appointments changed the dynamic of the physician-to-patient relationship. Healthcare providers saw more patients and patients did not have to worry about transportation. Patients also did not have sit in waiting rooms with other patients. Not having to travel to a doctor's office limited the patient's interaction to be infected with COVID-19. There are some specialties, such as dermatology, where telemedicine was easily expanded (Elmas et al., 2020). Telehealth had its disadvantages as it requires the patients to have internet access to participate in the appointment with their provider. Underserved communities who already had barriers to

care before the pandemic, had access issues related to telehealth. Patients with diminished capacity or unable to read were unable to participate in the telehealth appointments (Kaplan, 2020). There were also privacy concerns related to telehealth appointments. There was also a lack of privacy if there are other people in location where the telemedicine appointment may take place. Some patients also felt uncomfortable sharing private information through a computer. Also, many tests required at appointments that cannot be completed using telemedicine. A healthcare professional may not get the true picture related to the patient's healthcare concerns and either make misdiagnosis or provide inaccurate responses based on the information provided during the telehealth appointment.

A patient may be less inclined to share medical information over the phone than in person. The lack of this patient information made it difficult for the healthcare professional to treat accurately (Patterson et al., 2021). Physical therapists had to change their processes when treating patients with COVID. Access to appropriate protective gear limited interaction between therapists and patients. The protection supply issues created ethical issues for the healthcare professional. Weighing the risk of the therapist's health versus treating patients forced healthcare facilities to adjust treatment schedules. (Ditwiler et al., 2021).

COVID Treatments Availability-Ethical Considerations

When the COVID pandemic hit the United States in early 2020, the healthcare system did not have adequate treatments to assist patients suffering from the disease. Off label use, meaning drugs the FDA approved for another purpose, and repurposed drugs

were given to patients as possible treatments (Bronte et al., 2020; Fiscon & Paci 2021; Payne et al., 2021; Voit et al., 2021). Off-label drugs created an ethical dilemma as healthcare professionals do not know how patients react short-term and long-term to this medication. There was not any clinical trials to test the efficacy of specific off-label drugs (Shojai & Salari 2020). The use of unproven drugs could have had harmful effects on the patients. Taking unproved drugs without appropriate research to determine efficacy and side effects came with serious risks. Healthcare professionals expressed concern and trepidation for using treatment options that were not fully vetted (Almutairi et al., 2021). With no definitive cure, healthcare professionals took risks by prescribing untested drugs to treat COVID (Whitney, 2021). Healthcare professionals made ethical judgments without having all the information related to the drug, not necessarily knowing the short-term or long-term effect of each treatment available. Their focus was on the patient who was deteriorating from the disease. Unproven drugs that are ineffective also created a cause for concern. When patient's treatment options are limited and an unproved treatment is unproductive, a patient may try to persuade the healthcare professional to continue other non-proven methods. With the FDA granting emergency use authorization, it was possible unproven drugs will be available, but the government can withdraw approval should there be efficacy or harmful results (Allam & Andraous, 2020). Requesting an unproven or unapproved drug led a healthcare professional to ask assistance from others in their organization. Access to unproven treatments was limited by each healthcare site.

Convalescent plasma was considered a potential treatment option in the early stages of the pandemic. Taking plasma from previously infected patients and infusing current patients was a novel approach used in previous pandemics. Convalescent plasma was used to treat patients during the Ebola and the Middle East Respiratory pandemics (Munir et al., 2021). There are several ethical issues related to convalescent plasma. First, the donor had to be willing to donate plasma to assist other patients. Refusing to donate was also an ethical decision. If there any transportation barriers for donors, donations were limited (Algora & Mehmood, 2021). Next, patients must have been willing to accept the donation. Ethical issues surrounding priority of who receives plasma created a dilemma for the healthcare professional. Blood safety concerns were also be considered. There were associated risks regarding every transfusion procedure. Ineffective transfusions existed if tithers are not checked. Healthy individuals donated plasma without knowing the number of antibodies they had to offer (Raturi et al., 2021). There were other factors to consider for convalescent plasma distribution. Studies showed that getting the convalescent plasma as earlier as possible for better results. (Algora & Mehmood, 2021). The severity of the infection could impact the success of the plasma infusion.

The literature raised the following questions related to convalescent plasma:

- Should previous patients be compelled to donate? Should patients be paid to donate?
- How are donors being protected so they were not coerced to donate?
- Can the donor withdraw their donation?

- With a limited supply of plasma and a required blood type match, who should be getting the plasma first?
- Are processes in place to limit the risk of healthcare workers who are infusion patients? (Munir et al. 2021)

While it was considered a possible treatment at the beginning of the pandemic, the use of convalescent plasma had begun to wane as the pandemic has continued. Healthcare professionals were still limited in treatment options for patients suffering with COVID-19 were not seeing the success in patients receiving plasma. The World Health Organizations (WHO) made a recommendation to healthcare providers to discontinue using convalescent plasma as viable treatment option for COVID-19 due to many factors including donation, storage, and tithers of the plasma (WHO, 2021.)

Delayed care, regardless of the issue, during the COVID-19 pandemic created a life-threatening situation for the patients unable to access treatment. Delayed care was synonymous with no care currently available or barriers impeding care. Barriers to testing for COVID-19 impeded the treatment process. If patients were being denied access to COVID-19 testing than their care for treating positive infections was suspended. Social-economic status was also hindering patients from getting care. If patients are hesitant and frustrated due to long waiting times at the hospital, it only expanded the ethical considerations for the healthcare professional.

Patients with auto-immune diseases, such as cancer, were delayed in receiving care as hospitals prioritized COVID-19 patients (McGuire et al., 2020). The vulnerability of these patients increased as the physicians made the ethical decision to support patients

suffering from COVID (Mishra & Baba, 2021). Forced quarantining also led to delay in care (Moloney & Moloney 2020). If a patient became of infected, they would be forced to quarantine and may have had to reschedule or delay healthcare procedures. Many of the patient population requires regularly scheduled services such as chemotherapy or dialysis to survive. An ethical decision was made to make COVID-19 patients the priority and that decision impacted other patients who needed consistent healthcare services.

Palliative care and end of live of care was aimed at making patients comfortable as they struggle with a terminal illness. With so many Americans dying from COVID-19 complications, the pandemic has forced many healthcare professionals to have the end-of-life conversation with patients and their families. An ethical dilemma consistently existed of when to withdraw care. The benefit to continue treatment for a patient suffering was considered. Healthcare professionals treating patients with comorbidities additional to COVID-19 struggled to make these decisions (Ducharlet et al., 2021). The consequence of the withdrawing care with patients who may not benefit is the treatment or devices are now available another patient (Almutairi et al., 2021). The prioritization of patients' risk and benefits to unproven treatments for COVID-19 created a difficult ethical decision for healthcare professionals. Decisions were made of who received treatment based on the patient's likelihood to recover from the treatment.

The concept of denied care has ethical implications. Denied care appeared in many forms. The basis of the denial also complicated ethical situations. Patients wait times in a hospital emergency room were too long before being seen due to capacity issues. The lack of the ability to pay also led to denied care. The lack of staff to treat

patients in appropriate manner led to denied care. A healthcare professional decided to not provide treatments. Healthcare professionals are not forced to provide care, especially in situations without a cure or specific, defined treatment (Courtwright & Rubin, 2017). Some healthcare professionals chose not to report to work instead of treating patients (Swazo et al., 2020). By choosing not to report, ethical decisions that kept them safe from entering a healthcare facility treating patients with COVID were not nonexistent.

Family members have felt disconnected from their loved one as visitation policies at healthcare organizations have been instituted to deny access. Healthcare professionals were sometimes required to make ethical decisions for treatment without the family's involvement. With limited or no access, family members became increasingly concerned with the treatment plans for the patient. Some families have gone to court to intervene when healthcare professionals have denied treatment believing the healthcare provider was not doing every possible to care for their loved one. Healthcare organizations have refused to treat patients with untested medications. Families moved patients to alternate healthcare organizations with the hope of getting better care. When the healthcare facility plan of treatment differs from the patient or family wishes, the courts have had to mediate and, in some cases, determine liability (Courtwright & Rubin, 2017).

Conclusion

Healthcare workers encountered ethical decisions every day in treating patients before the coronavirus pandemic existed. The pandemic exacerbated a struggling healthcare system in the United States. The United States federal government and the

state governments were not prepared to support healthcare organizations. Hospitals prepared for surges by eliminating elective procedures and limited non-essential visit to the hospitals. Healthcare professionals confronted several barriers, such as limited capacity at hospitals, limited access to the treatment options, and a limited supply of ventilators. A struggling supply chain made getting crucial supplies, such as PPE, incredibly difficult and put healthcare workers in a very tenuous situation, making difficult ethical decisions that impacted countless patients' lives and ultimately deaths. Healthcare workers' decisions had a lasting impact on their patient population and health. These decisions also affected the health of the healthcare professional. With constant changes related to the treatment of COVID-19, new literature is published every month that led to more ethical considerations when healthcare professionals are treating patients with COVID-19. Ethical considerations continued to exist as healthcare professionals are tasked with making treatment decisions that may not extend the lives of their patients.

Chapter 3 provides the study's research design, methodology, data collection, and trustworthiness. An appendix includes a copy of the data collection instrument. Semistructured interviews were completed using the Ethical Dilemmas Measure created by Miljeteig et al. (2019) as the basis. In Chapter 3, I explain how the study was conducted.

Chapter 3: Research Method

The purpose of this qualitative study was to investigate and understand ethical considerations encountered by the healthcare professionals in Southwest Ohio when treating patients with COVID. Ethical considerations in healthcare existed before the pandemic. Rationing care and denying care when treatment options and supplies were limited forced healthcare professionals to make decisions of which patients survive. When the coronavirus pandemic began, no specific treatment plan existed, and no vaccine existed. Once vaccines became available, a patient's decision not to take the vaccine led to new ethical considerations. Interviews data results showed some of the ethical considerations of this current pandemic and may assist healthcare professionals in dealing with ethical situations for future pandemics.

This study aimed to increase discussion of the role of ethics in treating patients with COVID. There has been an increased amount of published literature related to COVID treatment and ethics in the last 2 years. This study focused on understanding the ethical considerations of the healthcare professional in Southwest Ohio. This chapter contains information related to the study design, the role of the researcher, study methodology, and the importance of trustworthiness.

Research Design and Rationale

Research Question

How did healthcare professionals in Southwest Ohio make ethical patient healthcare decisions related to which patients are treated and the manner of treatment for COVID-19 infection since March 2020?

Central Concepts of the Study

This study was a general qualitative design with a basic qualitative research approach to understand how participants explain their lived experiences treating patients with COVID (Patton, 2015). During the semistructured interviews, I discovered ethical issues and perceptions encountered by healthcare professionals in treating patients with COVID. Furthermore, I investigated how these ethical issues factored into the decision-making process in the treatment of patients. Once informed consent was attained, I determined a suitable way to interview the participant, through the Zoom videoconferencing platform, by telephone, or in person. Study participants were healthcare professionals affiliated with the Greater Dayton Area Hospital Association.

Before I commenced the interview, I confirmed the patient's consent and reminded the participant that I would record the interview. Each participant was assigned a participant code. These semistructured interviews provided me with the opportunity to learn about healthcare professionals' firsthand lived experiences in treating patients with COVID and how ethical decisions affect their decision-making process (Creswell, 2009). Each participant was asked the same questions, but there were more in-depth follow-up questions based on the participant's response. I blocked off 60 minutes for each interview to give participants additional time to elaborate their answers. I looked for common themes in the participants' answers. I estimated that the data collection and coding processes would take 3 weeks.

Role of the Researcher

Semistructured interviews were how I completed this qualitative research study. As the researcher, I needed to create a comfortable environment for participants to share their experiences (Ravitch & Carl, 2016). I expected participants to be honest, genuine, and candid in their responses. I conveyed the importance of confidentiality.

It was integral to the study to create a conversational partnership, creating an opportunity for both the interviewer and the participant to engage in the research process (Rubin & Rubin, 2012). My role as a researcher is solely as a PhD student. As a fellow healthcare professional in the Dayton, Ohio, region, I knew some of the participants in the study.

Methodology

Participants, Recruitment, and Data Collection

I contacted healthcare professionals affiliated with hospitals with the Greater Dayton Area Hospital Association to reach out to healthcare professionals in Southwest Ohio. Affiliate members of this organization consist of healthcare professionals throughout Southwest Ohio. They represented a diverse group of healthcare professionals, including physicians, nurses, pharmacists, and therapists. My goal was to receive interview results from 10–15 interviews. The number of interviews provided enough data for a sample study.

Instrumentation

To complete the generic qualitative study by applying semistructured interviews, I used the Ethical Dilemmas Measure created by Miljeteig et al. (2019) as the basis of the

interview instrument. The interview respondents consisted of healthcare workers such as physicians, nurses, pharmacists, and administrators. I utilized the Zoom software (https://zoom.us) to complete the face-to-face interviews to record the results from the interviews. I used the NVivo software, Version 12 for the transcription and analysis of the interview.

Data Analysis Plan

The data elements used to conduct this study are based on the interview data followed up by sample questions such as "Did limitation of resources required you to make a difficult choice?" and "Did you cared for a terminally ill patient and the question on when to stop treatment or a 'Do not resuscitate' order came up?" which describes the ethical considerations healthcare professionals make when treating patients, specifically in a pandemic. Follow-up questions were asked during the interview. The data points assisted in understanding how often healthcare professionals make these decisions in a pandemic and specific ethical consideration when treating patients. The study categorized ethical considerations health professionals contemplate during the current pandemic. After a thorough analysis of the results of the interviews, the study assisted in the discovery of the ethical decision-making process healthcare professionals complete when treating patients during COVID-19.

Each interview was transcribed to ensure I captured the answers from interview questions, uploaded to a password-protected computer. Any paper notes were kept secure to limit access. Thoughtful data analysis is critical to completing an accurate study.

With such a small research population, hand-coding is undoubtedly an option. I utilized the NVivo software to aid in this study's data collection and interpretation process. NVivo gave me the ability to transcribe interviews **(**Burkholder et. al 2016).

Trustworthiness

Burkholder et al. (2016) explained that trustworthiness is a synonym for validity. Creating a good study design with appropriate interviews related to my research question demonstrated trustworthiness. Being authentic and building a reputation of credibility assisted in developing trustworthiness (Patton, 2015). First, I espoused trustworthy behaviors to encourage participants' agreement to be interviewed. Then the interviews were authentic and credible to obtain data to answer my research question. It was essential to listen intently to their responses. By creating a credible survey with transferability and dependability, trustworthiness existed (Nowell et al., 2017). Protecting the integrity of the data throughout the collection process also demonstrated trustworthiness.

Credibility

Developing credibility is essential in all qualitative research. Addressing bias in any study is imperative as it is a barrier to demonstrating credibility with study participants (Patton 2015). Also, each study participant was allowed to read and agree to an informed consent document. I followed up with a conversation about their confidential information and the interview instrument. The interview instrument led to a productive conversation to address my interview questions. These actions contributed to the credibility of the study.

Transferability

Transferability is a process to demonstrate the trustworthiness of the study. My study results generalized that the reader of the study will determine the connection between the research and the findings (Patton 2015). More studies can easily be completed examining ethical considerations of healthcare professionals in a different region of the United States.

Dependability

It was essential to be transparent and create an audit trail to demonstrate dependability. I was required to get Institutional Review Board (IRB) approval before I began data collection for the study. Once I received IRB approval #03-21-22-1010024, I was required to obtain consent from the study participants. Informed consent was asked verbally before the interview begins. The audit trail showed my data collection and how I created specific categories for the coding (Burkholder et al., 2016). I kept notes of each interview and devised a simple coding system for each answer. All data were stored on a password-protected computer. Credibility was confirmed through saturation once consistent themes were present in the survey answers. A completed research process audit also established credibility (Nowell et al., 2017).

Confirmability

Confirmability was used to remove external bias so that any researcher would come up with the same results while investigating the same data. A researcher must be objective through the entire research process to no ensure bias does not impact the data collected from the interviews instrument (Burkholder et al. 2016). To perform

confirmability on a viable qualitative study, bias and preconceptions to interview answers were mitigated. I asked follow-up questions to the study participants to confirm answers. To minimize selection bias, I utilized a proper study design and implementation to interview a clearly defined population to answer the study question (Pannucci & Wilkins, 2011).

Summary

This study contributed to addressing the existing gap in the research literature by demonstrating the ethical considerations healthcare professionals in Southwest Ohio encountered in treating patients during the COVID-19 pandemic. Hopefully, the findings from the study will lead to additional similar studies to promote positive social change that can influence appropriate decision-making in future pandemics.

Chapters 4 and 5 of this dissertation provide results from the assessment, which will comprise demographics, experiences, and considerations. I discuss the results of the interviews and review any barriers or limitations during the interviews. Finally, I suggest potential studies and use the study outcome to promote positive social change.

Chapter 4: Results

The data collection for this research study provided collection and structured thematic analysis of the 14 semistructured interviews of the healthcare professionals in Southwest Ohio. I conducted interviews utilizing Zoom software during the month of May in 2022. Raw interview data we were recorded using Zoom for each interview. Results from the interviews were essential to my findings and may contribute to the body of knowledge and address the research question for this study. The COVID-19 pandemic has decimated the United States since February 2020. Ethical decisions affect access to treatment with no definitive cure to treat the virus. However, healthcare professionals in Southwest Ohio had to decide how to use scare resources such as ventilators and other forms of therapy. At the same time, another patient may be denied access to treatment. This problem impacts our communities because this pandemic requires healthcare professionals to treat patients affected by the coronavirus. Presently, there is no research on the ethical considerations healthcare professionals in Southwest Ohio encounter treating patients with COVID. My study provides a fresh perspective with key learnings that can be used now and for future crisis situations.

This qualitative study aimed to identify and understand the ethical considerations healthcare professionals make in treating patients during the COVID-19 pandemic. (Suryadi & Kulsum, 2020). Identifying and understanding how these healthcare professionals made these ethical decisions through a decision-making ranking process or metrics related to treatment during COVID-19 would add to the knowledge about the ethical decision-making process for future pandemics.

The research question was: how do healthcare professionals in Southwest Ohio make ethical patient healthcare decisions related to which patients are treated and the manner of treatment for COVID-19 infection? In this chapter, I share details about the setting of the study, demographic information of the study participants, data collection, emerging themes, trustworthiness, and the study's results.

Setting of Study

The study setting was completed exclusively using Zoom technology to conduct the semistructured interviews due to the COVID-19 pandemic and the limitations on the schedule of the health professionals. Conducting the interviews through Zoom made it convenient for participants to complete the interview questions at the convenience of their home or office without disrupting their schedules.

Demographics

This study included 14 participants who completed semistructured interviews. All participants are affiliated with a Greater Dayton Area Hospital Association member organization. Snowball sampling was also used to find additional participants. Five demographic questions were used in the interview. The survey data collection tool included a question on gender, age, role in healthcare facility, location of the healthcare facility, and budget oversight question (see Figure 1). Two further survey questions were used to determine whether and to what extent participants needed to restrict care for one patient in favor of another (see Figure 2) or treat a COVID patient using off-label drugs (see Figure 3).

Figure 1

Study Participant Demographics (14 Participants)

Gender	Age	Role in healthcare facility	Location of workplace	Budget oversight
Male: 4	18-30: 2	Physician: 8	Hospital: 13	Yes: 6
Female: 10	31-50: 7	Advanced practice nurse: 3	Hospital/doctor's office: 1	No: 8
	50+: 5	Nursing administration: 1		
		Pharmacist: 1		
		Research coordinator: 1		

Figure 2

Participants' Experience in Restricting of Treatment

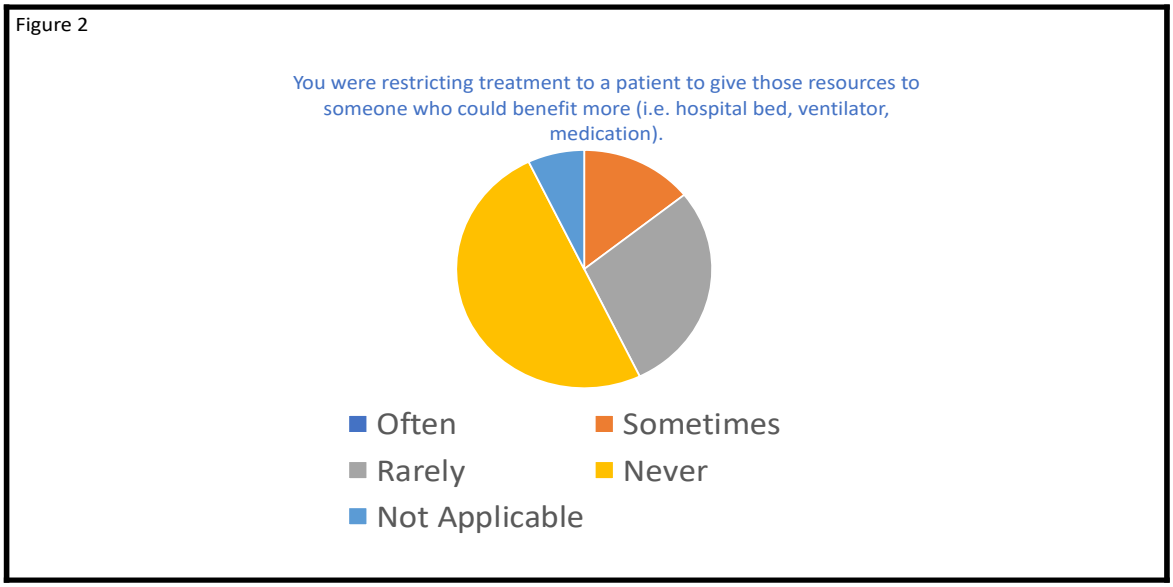
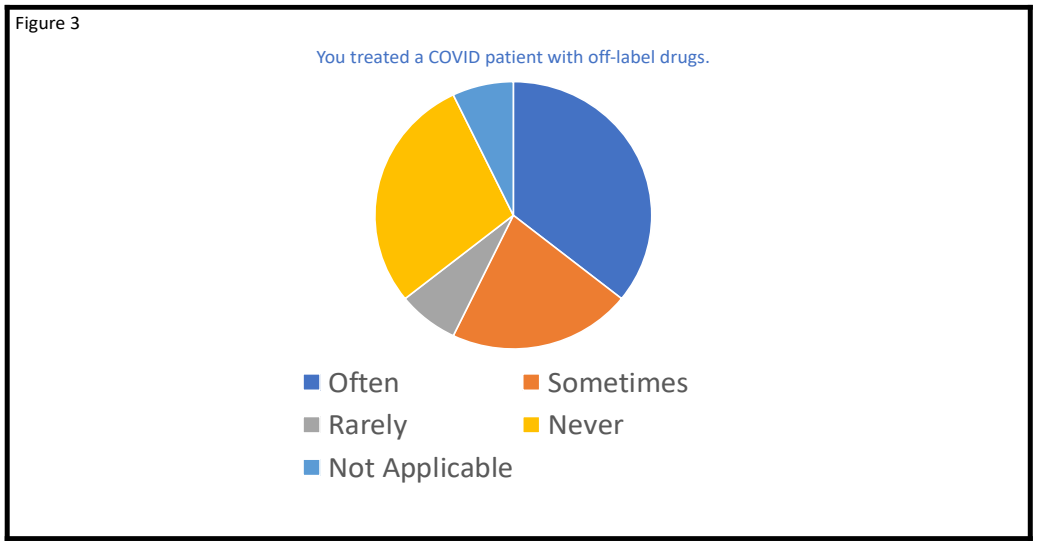


Figure 3

Participants' Treatment of Patients Using Off-Label Drugs



Data Collection

Number of Interviews

This study included 14 semistructured interviews of a diverse group of healthcare professionals in Southwest Ohio, as shown in Figure 1. The inclusion criteria for the participants required that healthcare professionals must be affiliated with a Greater Dayton Area Hospital Association member organization.

Location, Frequency, and Duration of Data Collection

The interviews took place from May 6 through May 23, 2022 and were dependent on the participants' schedules. Study data collection for this research study was conducted via Zoom. The interview data collection tool was comprised of five demographic questions, ten multiple-choice questions, and five open-opened questions. The data collection tool used the Ethical Dilemmas Measure created by Miljeteig et al.

(2019) as the basis of the interview instrument. Changes were made to the original interview instrument. Each interview was conducted once per participant, and the interviews were scheduled for an hour but averaged around 25 minutes. During every interview, there was an opportunity to confirm each answer to ensure the respondent's answers were correctly recorded.

How the Data Were Recorded

To complete the interviews, I invited study participants to participate in the study via email invitation. After receiving an email from a prospective participant, I emailed the consent letter. Study participants were asked to respond to the consent form with "I Consent" to continue in the study. After receiving the consent email, I scheduled an interview based on the participant's availability. I provided the participant a Zoom invitation at the agreed-upon date and time.

Each interview was recorded using the Zoom software, and I took notes using my MacBook Air to write down answers to the interview questions as a backup if I had any issues with the Zoom technology.

Variations in Data Collection and Unusual Circumstances

During the data collection process, there were no variations in the data collection methodology, and it was performed as depicted in Chapter 3. The same procedure of data collection was completed during each interview. I began each interview by asking the participant to reconsent to participate in the study and disclosed as a reminder that the interview was being recorded. Each participant was assigned a study participant code to create de-identified data. Only one unusual circumstance occurred during the data

collection process. Midway through the first interview, I noticed that it was not being recorded on Zoom, so I asked if we could start over to ensure we captured the entirety of the interview.

Data Analysis

After data were collected, the interviews were transcribed via NVivo software. NVivo transcribes MP4 video files and provides the user with a Word document of text for each interview. The software has a 90% transcription accuracy. After completing the transcriptions, I reviewed them for accuracy against the notes I wrote during each interview.

The transcripts were uploaded to NVivo software and examined for reoccurring text and phrases. For this study, I created codes to identify those terms that appeared most frequently.

Process for Identification of Themes

The themes identified in the study data are based upon the regularity of appearance in the interviews. Below is a list of reoccurring terms that appeared during the interviews.

Emergent Themes

Fear of Getting Sick/Getting Others Sick

Healthcare professionals were worried that they could become infected treating patients. They worried about infecting members of their teams and bringing COVID home to their families. The fear of infection had a profound impact on the lives of the healthcare professionals. Getting infected with COVID not only kept them away from

work, but it also presented the opportunity to infect other members of the hospital staff and family members.

Patient/Family Interaction

Healthcare professionals had difficult conversations with family members. Many times, family members could not say goodbye to their loved ones due to visitation restrictions. Healthcare professionals encountered family members who did not believe in COVID and thought their family members were suffering from something else. Family members wanted healthcare professionals to provide unproven medications to support the patients. When denied, family members would be belligerent and uncooperative. Healthcare professionals spend an excessive amount of time educating families on misinformation. Healthcare professionals faced hostility from families during the COVID treatment process. Family members accused healthcare professionals of providing subpar care if their loved one did not improve.

Access to Treatment

At the beginning of the pandemic, there were few viable treatments to support patients with COVID. There was momentum for healthcare organizations to create convalescent plasma programs to assist COVID patients. Ultimately, the follow-up studies show the limited success of convalescent plasma as a treatment for COVID. The use of off-label drugs was needed as there was no FDA-approved treatment for COVID at the beginning of the pandemic.

The Stress of Treating COVID Patients

Healthcare professionals treated unvaccinated patients who declined rapidly and did not want specific treatments. Patients did not believe that COVID existed. The emotional toll on healthcare professionals treating patients created more ethical considerations when patients pushed back on the treatment. A healthcare professional described a situation where they had a patient with cancer who possibly had symptoms of COVID, and they were very afraid of moving the patient to the COVID unit. If the patient did not have COVID, they could get sick being on the COVID unit. There was also concern about placing them on the oncology unit and get everyone else with cancer sick. This scenario created several ethical decisions for the healthcare professional.

Patient Deterioration

The stress of COVID patients declining and needing to be transferred to the ICU. The unavailability of vacant ICU beds in the hospital forced healthcare professionals to decide who would get treatment. Some patients spent weeks on ventilators, never improved and ultimately passed away. With a limited number of ventilators, other patients missed out the opportunity for this treatment and support.

Discrepant Cases

This study revealed discrepancies in the responses of the participants. As each healthcare professional has had different experiences treating patients with COVID, their ethical considerations would be different based on their personal encounters with patients and their family.

Evidence of Trustworthiness

Credibility

Developing credibility is essential in all qualitative research. Addressing bias is imperative as it is a barrier to demonstrating credibility with study participants (Patton, 2015). Every study participant was allowed to read and agree to an informed consent document. Each conversation started by reminding the participant about confidential information and the interview instrument. There were no changes to the research methods described in Chapter 3. Interviewing 14 healthcare professionals in Southwest Ohio created an opportunity to see reoccurring themes during the interviews, thereby expanding the credibility with the study.

Transferability

Transferability is a process to demonstrate the trustworthiness of the study. My study results will be generalized so that the reader will determine the connection between the research and the findings (Patton 2015). For this study, I chose healthcare professionals in Southwest Ohio. More studies can efficiently be completed and demonstrate transferability by examining the ethical considerations of healthcare professionals in different regions of the United States. The study requirements were presented in a clear, concise manner in Chapter 3. Another researcher with access to the same study population would be able to replicate the study.

Dependability

It was essential to be transparent and create an audit trail to demonstrate dependability. I received IRB approval before I began data collection for the study. I

obtained email consent from the study participants. Informed consent was also confirmed verbally before the interview. The audit trail shows my data collection and how I created specific categories for the coding (Burkholder et al., 2016). I typed notes for each interview and recorded all the interviews via Zoom. All data are stored on a password-protected computer. A completed research process audit will establish credibility (Nowell et al., 2017). With only 14 participants, analysis by hand could have been utilized for this study. I was using the NVivo software to analyze the data, creating an extra step toward proving the dependability of the interview instrument.

Confirmability

Confirmability removes external bias so that any researcher would come up with the same results while investigating the same data. A researcher must be objective throughout the entire research process to ensure bias does not impact the data collected from the interview instrument (Burkholder et al., 2016). To confirmability of a viable qualitative study, prejudice, and preconceptions to interview answers need to be mitigated. I asked follow-up questions to the study participants to confirm their answers. To minimize selection bias, I utilized a proper study design and implementation to interview a clearly defined population to answer the study question (Pannucci & Wilkins, 2011). I also asked follow-up questions to the participants to ensure I recorded the correct answers to their interview questions.

Results

Answering the Research Question

This study was conducted to answer the following Research Question: how did healthcare professionals in Southwest Ohio make ethical patient healthcare decisions related to which patients are treated and the manner of treatment for COVID-19 infection?

Based on the themes identified through analysis of the study data through the view of the conceptual framework of punctuated equilibrium theory, the study findings show that ethical considerations existed before the pandemic. The study participant's ethics may not have changed during the pandemic; the pandemic increased the number of ethical concerns for healthcare encounters when treating patients with COVID.

Supporting Data

Data collected throughout the study demonstrate that the COVID-19 pandemic created more ethical considerations for healthcare professionals in Southwest Ohio. Healthcare professionals had to worry about their safety from becoming infected with COVID-19 and potentially affecting other people. Healthcare professionals encountered patients and families who believed pandemic misinformation. Healthcare professionals took extra time away from healthcare activities to educate patients and families to combat misinformation. Ethical decisions contribute to patient access to healthcare. The ethical decision-making process for each patient determines whether the patient receives treatment.

One respondent shared that a patient who also was a physician contacted them regarding treatment. The patient was suffering from mild COVID symptoms and requested treatment typically prescribed to patients with worsening symptoms and was admitted to the hospital. The respondent declined to provide treatment since the patient had mild symptoms, and the treatment should be reserved for those who required the treatment for overwhelming symptoms. The respondent learned that the patient had contacted another healthcare provider to get admitted to the hospital to receive the treatment the respondent had earlier denied. This action made the respondent feel that this blurred ethical and professional lines. The scenario created multiple ethical considerations for the respondent, the patient, and now the admitting provider. The patient used relationships in healthcare system to gain access to treatment.

Discrepant Cases

One of the respondents was a research coordinator who worked on COVID research trials at a hospital. The research coordinator has not been involved in managing the patient's treatment of COVID. A patient must meet inclusion criteria to be attached to the study, which would include the research coordinator's interaction with some patients. Several questions did not apply to their role in healthcare, but ethical considerations still existed.

Summary

This chapter presents the results of a qualitative study to answer the specific research question regarding ethical considerations healthcare professionals in Southwest Ohio encountered while treating patients with COVID. The data from the interviews have

demonstrated that impact COVID-19 had on how decisions were made to treat patients with COVID-19 and the impact of the ethical consideration on the decision-making process.

Chapter 5 will provide an interpretation of the findings within the context of the literature review, punctuated equilibrium theory, distinguish limitations that occurred in this study and offer possible suggestions for future research and recommendations for positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

This qualitative study aimed to identify and understand the ethical considerations healthcare professionals made in treating patients during the COVID-19 pandemic. (Suryadi & Kulsum, 2020). Identifying and understanding how these healthcare professionals made ethical decisions through their decision-making ranking process or metrics related to treatment during COVID-19 would add to the body of knowledge about the ethical decision-making process for future pandemics and possibly for other crises such as a large ongoing natural disaster such as New Orleans in 2005. The stress of caring for patients with COVID-19 created new ethical considerations as healthcare professionals risked their own lives and mental health to treat patients in urgent need.

Understanding the unique framework of treating patients during a global pandemic can help guide policymakers for future pandemics. The pandemic's effect on front-line healthcare professionals was dangerous due to the multi-level government dysfunction in streamlining access to suitable supplies and treatment.

Based on the recurring themes identified through analysis of the study data using the conceptual framework punctuated equilibrium theory as a basis, the findings suggest that the COVID-19 pandemic sharply increased the number of ethical considerations healthcare professionals encountered when treating patients with COVID.

Although ethical decisions existed before the pandemic, there is a problem with the lack of consistency in addressing issues of stressful encounters when treating patients with COVID leading to even more ethical considerations. Healthcare professionals are trained to manage the decision-making process related to patient care. However, the

research demonstrated that the influences of the pandemic, such as fear of becoming infected and feeling uncomfortable treating unvaccinated patients, led to more ethical decisions, which led to delayed or limited access to care. The research demonstrates that healthcare professionals were compelled to treat patients without proper policy, practice guidance, and practical support.

Interpretation of the Findings

Stress of Treating COVID Patients

A major attribute of a healthcare professional is having the ability to connect and build a healthy rapport with their patients. The emotional connection of watching their patients struggle with COVID put a disturbing strain on the healthcare professional. The stress of not being able to adequately support patients with COVID at the beginning of the pandemic devastated healthcare professionals. Healthcare professionals experienced issues with supply chains to get appropriate protection equipment to shield themselves when treating patients. Biber et al.'s (2022) findings support my findings with limited access to treatment options and access to ventilators, the complications of stress and anguish of the healthcare professional continued to grow. Public policymakers and hospital leadership need see how the impact of the stress on the healthcare system and ultimately the healthcare professionals not only creates a barrier to access to treatment but also leads the healthcare professional on a path to encounter more ethical considerations when treating patients.

Fear of Getting Sick/Others Sick

Study findings confirm that healthcare professionals were required to make difficult decisions with inadequate guidance when treating patients with COVID. Ethical considerations existed before the pandemic but added the additional stress of becoming infected with COVID and conceivably infecting other people further demonstrated the devastating impact COVID had and continues to have on our lives. The study confirms that a gap existed in the literature regarding the ethical considerations healthcare professionals encountered while treating patients with COVID. The fear of getting sick from COVID was exemplified as many healthcare workers became infected with the COVID-19 virus. Once infected, they become carriers and ultimately affected other people. An infection also kept them from working, which put more stress on the fellow employees who had to now cover for an infected colleague. When not in a pandemic, the focus of the healthcare professional can be more of the patient and less on the worry of becoming infected with a potentially lethal virus.

Patient/Family Interaction

The findings further identified in the research the role healthcare professionals played in supporting patients during the patient suffering from COVID, specifically the finals hours of the patients' lives. With visiting limitations, the healthcare professionals were the only people in hospital room when patient families were not allowed. These actions provided a glimpse of the additional tasks thrust onto the healthcare professionals faced during COVID (Borghi, 2021). Being the only one allowed in the hospital gave

additional opportunities for the healthcare professional to become infected with COVID-19.

This research study demonstrated that healthcare professionals suffered when treating patients with COVID due to limited treatment options and tried to combat misinformation from patients and families, often being attacked with belligerent responses because they were accused of lying. The challenge of treating patients during a pandemic was incredibly demanding. Being forced to defend their actions to patients and family members who did not believe the pandemic existed made their job even more difficult. Healthcare professionals were accused of killing patients and faced backlash for not prescribing unreliable or untested treatments for patients suffering from COVID-19. When the pandemic began, there were few options for the treatment of COVID. When patients did not improve, family members were upset and took that anger and frustration out on the healthcare professional. For future pandemics, a universally accepted policy to address pandemic misinformation should be created to put a healthcare professional in the best situation for success instead of fending for themselves.

Interpretation of Access to Treatment

It was stated throughout the literature that all levels of government and our healthcare system were not prepared for the COVID-19 pandemic to treat patients when they became infected. Off-label use of drugs (i.e., prescribing in the different disease state than approved) and convalescent plasma were used at the beginning of pandemic to fight the disease (Algora & Mehmood, 2021; Bronte et al., 2020). Unfounded and untested drugs were considered as possible solutions. Research had not been completed

to determine efficacy. The lack of treatment options compounded the stress put on the healthcare professional individually leading to them to make ethical judgment decisions to treat their patients. Once treatment was approved, the federal government's inability to have a consistent process to deliver drugs throughout the country created delays for patients to receive treatment.

Patient Deterioration

As patients began to deteriorate, the struggle to provide proper treatment for the patient's disease state impeded healthcare professionals ability to serve their patients. With limited ICU beds near capacity, healthcare professionals had no place to send their patients who needed additional care that their main hospital could provide. Patient backup affected hospital operations (DePergola, 2020). If a patient could not move to an ICU floor, it also limited the availability beds on the COVID floors. With no open ICU beds, some patients' supplementary care was delayed. Healthcare professionals also watched patients spend weeks on ventilators and never recover. The COVID pandemic has showcased that all levels of governments and our healthcare system struggle with equipping healthcare professionals with the tools to successfully treat patients. The research showed, when the clinicians are stressed, it leads to delayed care, increased costs, and more frequent ethical considerations.

The concept of self-preservation is evident with the emerging themes throughout the study. Healthcare professionals feared for the own safety and the safety of the those around them (Parchani et al., 2021). That fear led to more stress and made ethical decisions more difficult. Self-preservation was even more evident when a fellow

physician requested one of the study participants to provide access to treatment designated for patients with high acuity of the disease. When the physician was denied access to treatment, they found another colleague who admitted them into a hospital to obtain treatment. Healthcare professionals should not be into a situation where the distress of getting infected impacts the decision-making process. Policymakers must consider this position when developing policies for future pandemics.

Current literature showed inadequate testing and treatment process related to the COVID-19 pandemic. Supplementing cognitive bias issues created a perfect storm for the ethical considerations in the healthcare decision making process (Coen et al., 2021). The literature reviewed in Chapter 2 is congruent with the interview findings as once vaccines became available more ethical considerations were addressed as patients who chose not to be vaccinated became ill and presented at the hospital for treatment.

Limitations of the Study

An obvious limitation is that this study was conducted in the Southwest region of Ohio. Results from this study are not representative of the United States nationally or even the entire state of Ohio. The data are only relevant to the lived experiences of the sample population interviewed. Hence, it is essential to recognize this limitation when extrapolating to other geographic areas, but participants' knowledge is powerful and can be considered within context. This qualitative study did not establish causal relationships. However, it revealed the past experiences of those interviewed. Using in-depth, semistructured interviews as the data collection process presented the opportunity to ensure those accurate responses were recorded. The method of data collection followed

by the transcription required an additional review as the NVivo transcription process was 90% accurate. Further consideration was required as the transcription service jumbled parts of the interviews. The United States continues to struggle with issues related to the spread of COVID-19 and the hectic schedules of the healthcare professionals, so face-to-face interviews could not be conducted. Zoom videoconferencing was utilized for the study. Zoom is only reliable if adequate electrical or battery power and internet capabilities support videoconference software. Snowball sampling was used through healthcare professionals forwarding the email invitation to other potential participants, so the study population does not accurately represent the entire healthcare industry or even the city of Dayton, Ohio. These limitations above did not impact the accuracy of the study data nor were they a barrier to reoccurring themes obtained during the interviews. Confirmation was demonstrated by consistent themes presented during the interview process.

Recommendations

Recommendations for future research studies of the ethical considerations healthcare professional encountered during the COVID-19 pandemic are based on the literature review, in concert with the data collected during the study interviews. As examined, studies related to the ethical decision-making process existed before the pandemic and will exist after the pandemic. Another consideration would be focusing the study population on one specific healthcare profession category, such as physicians, nurses, or hospital administrators. These study populations could be divided into subgroups to generalize a particular population, such as infectious disease specialists,

critical care physicians, or hospitalists. Replicating this study in another region in Ohio or state in the United States or another country may also provide different study results.

For future healthcare policy implementation, the design and execution of new policies should use past experiences to develop strategies so future pandemics are not as shocking to the political system as addressed through the punctuated equilibrium theory. There were numerous policy gaps exposed during the pandemic. These gaps must be studied when developing future pandemic healthcare policies. Policymakers must streamline access to PPE, ventilators, and other treatments. Appropriate access to PPE can alleviate some stress and ethical situations for healthcare professionals. The challenge of treating patients in a pandemic is intense (Amri & Drummond, 2020). Ethical decisions are made that impact the future lives of each patient. Training could be offered to prepare better healthcare professionals to help address misinformation presented by the patients and their families.

Implications for Positive Social Change, Theory, and Practice

With the theoretical framework of the punctuated equilibrium theory, the COVID-19 pandemic devastated our healthcare policy and decision-making processes. Baumgartner and Jones (1993) considered when a specific event upends the policy process. The COVID pandemic proved a fundamental breakdown from all levels of government and our healthcare system to support healthcare professionals who treat patients with COVID. Inappropriate access to supplies and treatment and using social media to spread misinformation created disarray. Social media and media coverage of the disease affected the public's trust in COVID testing and treatment of the disease. The

research findings show several deficiencies in the healthcare access process and policymaking.

Future public policies should be created from these past experiences to demonstrate lessons learned from COVID-19. Although this study was limited to healthcare professionals' experiences in Southwest Ohio, their insight and perspective revealed that policymaking for access to treatment could benefit other regions in our country. Future researchers could use this study as a starting point to assist policymaking. Policymakers should be working the front-line healthcare professionals to develop better methods to serve the needs of their community. Policymakers should be researching ways to provide tools to eliminate stress for the healthcare professional. The study showed that increased stress factored into the ethical decision-making process. By giving healthcare professionals the tools for success, policies can be enacted to eliminate some of the stress experienced when treating patients during a pandemic.

The study's results showcase the factual, ethical considerations faced by healthcare professionals. The implication for social change for the practice of public policy is the knowledge of what occurred during the COVID-19 pandemic, and policymakers can be better prepared for future pandemics. The healthcare professionals' expertise can better diagnose potential barriers and hopefully eliminate some ethical decisions.

Positive social change will occur if we do not repeat past mistakes from this pandemic. All levels of government should work together to grant support to the

healthcare system so patients can be treated, and healthcare professionals have the tools they need to provide appropriate treatment.

Conclusion

Healthcare professionals encountered ethical decisions before, during, and after the COVID-19 pandemic. The pandemic distressed an already dysfunctional healthcare system and created new difficulties for healthcare professionals in treating patients with COVID-19 (Shaw, 2021). The results of the study exhibit the genuine impact it had on healthcare professionals in Southwest Ohio. The dedication and devotion of healthcare professionals to their patients were effectively demonstrated. The analysis of healthcare professionals' experience regarding ethical considerations encountered while treating patients with COVID addressed a gap in the literature relating to healthcare access policies in Southwest Ohio. A study in another region in our county may result in different outcomes. However, the theoretical framework of the punctuated equilibrium theory would still be appropriate based on the vast shock the pandemic impacted all levels of government and our healthcare system. Our country's policymaking process is predictably constant until a significant event disrupts the process. How our nation responded to this event demonstrated our ability to adapt to a new way of life. We must have policies in place to address cataclysmic events as they happen again in the future. To create successful public policies, we must include appropriate stakeholders to address emerging themes so policies can better focus on the population's needs.

Ultimately, every ethical decision in healthcare is related to access. Access is either granted or denied (Shaw, 2021). The COVID pandemic shined a light on glaring

health access needs in our country. Healthcare professionals were put in an untenable situation to treat patients with COVID, leading to even more ethical considerations.

References

Abd El-Aziz, T. M., & Stockand, J. D. (2020). Recent progress and challenges in drug development against COVID-19 coronavirus (SARS-CoV-2) - an update on the status. *Infection, Genetics and Evolution*, *83*. https://doi.org/10.1016/j.meegid.2020.104327

Algora, M., & Mehmood, T. (2021). Challenges in establishing a coronavirus disease 2019 (COVID-19) convalescent plasma donation program in a multicultural environment. *Archives of Pathology & Laboratory Medicine*, *145*(12), 1479–1484. https://doi.org/10.5858/arpa.2021-0198-SA

Allam, M. F., & Andraous, F. (2020). Use of chloroquine or hydroxychloroquine in treatment of COVID-19: Is it ethical? *Central European Journal of Public Health*, *28*(3), 246–247. https://doi.org/10.21101/cejph.a6464

Almutairi A.F., BaniMustafa A., Alessa Y.M., & Alahmad G. (2021). Who should receive treatment? Healthcare professionals' perspectives surrounding the medical management of patients with COVID-19. *Risk Management and Healthcare Policy*, *14*, 3659–3666. https://doi.org/10.2147/rmhp.s325312

Amri, M., & Drummond, D. (2020). Punctuating the equilibrium: An application of policy theory to COVID-19. *Policy Design and Practice*, *4*(1). https://doi.org/10.1080/25741292.2020.1841397

Antommaria, A. H. M., Gibb, T. S., McGuire, A. L., Wolpe, P. R., Wynia, M. K., Applewhite, M. K., Caplan, A., Diekema, D. S., Hester, D. M., Lehmann, L. S., McLeod-Sordjan, R., Schiff, T., Tabor, H. K., Wieten, S. E., & Eberl, J. T.

(2020). Ventilator triage policies during the COVID-19 pandemic at US hospitals associated with members of the association of bioethics program directors. *Annals of Internal Medicine*, *173*(3), 188–194. https://doi.org/10.7326/M20-1738

Azzi, Y., Bartash, R., Scalea, J., Loarte-Campos, P., & Akalin, E. (2021). COVID-19 and solid organ transplantation: A review article. *Transplantation*, *105*(1), 37–55. https://doi.org/10.1097/TP.0000000000003523

Bar, M., Fish, E., & Mendlovic, S. (2021). Mental-health care under threat: a pragmatic approach for ethical decision-making for practitioners in COVID-19. *Counselling Psychology Quarterly*, *34*(3/4), 525–537. https://doi.org/10.1080/09515070.2020.1777939

Barberia, L., Plümper, T., & Whitten, G. D. (2021). The political science of Covid-19: An introduction. *Social Science Quarterly*, *102*(5), 2045–2054. https://doi.org/10.1111/ssqu.13069

Bartholdson, C., Sandeberg, M. af, Molewijk, B., & Pergert, P. (2021). Does participation in ethics discussions have an impact on ethics decision-making? A cross-sectional study among healthcare professionals in paediatric oncology. *European Journal of Oncology Nursing*, *52*, Article 101950. https://doi.org/10.1016/j.ejon.2021.101950

Baumgartner, F. R., & Jones, B. D. (1991). Agenda dynamics and policy subsystems. *Journal of Politics*, *53*(4), 1044–1074. https://doi.org/10.2307/2131866

Baumgartner, F. R., & Jones, B. D. (1993). *Agendas and instability in American politics*. The University of Chicago Press.

Baumrucker, S. J., Carter, G., Adkins, R. W., Perkins, C., Stolick, M., & VandeKieft, G. (2020). Ethics roundtable: Distribution of critical care resources in the setting of a COVID-19 surge. *American Journal of Hospice & Palliative Medicine*, *37*(12), 1096–1101. https://doi.org/10.1177/1049909120951084

Biber, J., Ranes, B., Lawrence, S., Malpani, V., Trinh, T. T., Cyders, A., English, S., Staub, C. L., McCausland, K. L., Kosinski, M., Baranwal, N., Berg, D., & Pop, R. (2022). Mental health impact on healthcare workers due to the COVID-19 pandemic: A U.S. cross-sectional survey study. *Journal of Patient-Reported Outcomes*, *6*(1), 1–14. https://doi.org/10.1186/s41687-022-00467-6

Borghi, L. (2021). Clinician-patient-family member interactions in COVID-19 serious conditions: A glimpse from the other side of the limbo. *Patient Education and Counseling*, *104*(8), 1887–1888. https://doi.org/10.1016/j.pec.2021.02.003

Bronte, V., Ugel, S., Tinazzi, E., Vella, A., De Sanctis, F., Cane, S., Batani, V., Trovato, R., Fiore, A., Petrova, V., Hofer, F., Barouni, R. M., Musiu, C., Caligola, S., Pinton, L., Torroni, L., Polati, E., Donadello, K., Friso, S., & Olivieri, O. (2020). Baricitinib restrains the immune dysregulation in patients with severe COVID-19. *Journal of Clinical Investigation*, *130*(12), 6409–6416. https://doi.org/10.1172/JCI141772

Brown, N. J., Wilson, B., Szabadi, S., Quon, C., Ong, V., Himstead, A., Shlobin, N. A., Yang, C. Y., Lien, B. V., Shahrestani, S., Tran, K., Tafreshi, A. R., Birkenbeuel, J., Ransom, S. C., Choi, E. H., Sahyouni, R., Chan, A. Y., Kheriaty, A., & Yang, I. (2021). Ethical considerations and patient safety concerns for cancelling non-

urgent surgeries during the COVID-19 pandemic: A review. *Patient Safety in Surgery*, *15*(1), 1–9. https://doi.org/10.1186/s13037-021-00293-7

Bruno, B., Shalowitz, D. I., & Arora, K. S. (2021). Ethical challenges for women's healthcare highlighted by the COVID-19 pandemic. *Journal of Medical Ethics*, *47*(2), 69–72. https://doi.org/10.1136/medethics-2020-106646

Burkholder, G. J., Cox, K. A., Crawford, L. M. (2016). *The scholar-practitioner's guide to research design* [VitalSource Bookshelf version]. Laureate Publishing.

Cairney, P. (2013). Standing on the shoulders of giants: how do we combine the insights of multiple theories in public policy studies? *Policy Studies Journal*, *41*(1), 1–21. https://doi.org/10.1111/psj.12000

Cardona, M., Dobler, C. C., Koreshe, E., Heyland, D. K., Nguyen, R. H., Sim, J. P. Y., Clark, J., & Psirides, A. (2021). A catalogue of tools and variables from crisis and routine care to support decision-making about allocation of intensive care beds and ventilator treatment during pandemics: Scoping review. *Journal of Critical Care*, 66, 33–43. https://doi.org/10.1016/j.jcrc.2021.08.001

Centers for Disease Control and Prevention. (n.d.). *CDC COVID data tracker*. U.S. Department of Health and Human Services. https://covid.cdc.gov/covid-data-tracker/#datatracker-home

Chan, W., He, B., Wang, X., & He, M.-L. (2020). Pandemic COVID-19: Current status and challenges of antiviral therapies. *Genes & Diseases*, *7*(4), 502–519. https://doi.org/10.1016/j.gendis.2020.07.001

Chase, J. (2020). Caring for frail older adults during COVID-19: integrating public health

ethics into clinical practice. *Journal of the American Geriatrics Society*, *68*(8), 1666–1670. https://doi.org/10.1111/jgs.16666

Chin, H. P., & Palchik, G. (2021). Telepsychiatry in the age of COVID: some ethical considerations. *Cambridge Quarterly of Healthcare Ethics*, *30*(1), 37–41. https://doi.org/10.1017/s0963180120000523

Chervenak, F. A., McCullough, L. B., Bornstein, E., Johnson, L., Katz, A., McLeod-Sordjan, R., Nimaroff, M., Rochelson, B. L., Tekbali, A., Warman, A., Williams, K., & Grünebaum, A. (2021). Professionally responsible coronavirus disease 2019 vaccination counseling of obstetrical and gynecologic patients. *American Journal of Obstetrics and Gynecology*, *224*(5), 470–478. https://doi.org/10.1016/j.ajog.2021.01.027

Claeys, A., Berdai-Chaouni, S., Tricas-Sauras, S., & De Donder, L. (2021). Culturally sensitive care: definitions, perceptions, and practices of health care professionals. *Journal of Transcultural Nursing*, *32*(5), 484–492. https://doi.org/10.1177/1043659620970625

Coen, M., Sader, J., Junod-Perron, N., Audétat, M.-C., & Nendaz, M. (2022). Clinical reasoning in dire times. Analysis of cognitive biases in clinical cases during the COVID-19 pandemic. *Internal and Emergency Medicine*, *17*(4), 979–988. https://doi.org/10.1007/s11739-021-02884-9

Cooper, S., & Endacott, R. (2007). Generic qualitative research: a design for qualitative research in emergency care? *Emergency Medicine Journal*, *24*(12), 816–819. https://doi.org/10.1136/emj.2007.050641

Courtwright, A., & Rubin, E. (2017). Healthcare provider limitation of life-sustaining treatment without patient or surrogate consent. *Journal of Law, Medicine & Ethics*, *45*(3), 442–451. https://doi.org/10.1177/1073110517737544

Cousins, E., de Vries, K., & Dening, K. H. (2021). Ethical care during COVID-19 for care home residents with dementia. *Nursing Ethics, 28*(1), 46–57. https://doi.org/10.1177/0969733020976194

Cox, S. (2021). To dispense or not to dispense: lessons to be learnt from ethical challenges faced by pharmacists in the COVID-19 pandemic. *Developing World Bioethics, 21*(4), 193–200. https://doi.org/10.1111/dewb.12284

Day, F. (2020). COVID Black: organizing information on racial health disparities and living data. *American Studies* (00263079), *59(*2), 35–38 https://doi.org/10.1353/ams.2020.0012

del Río, R., de Ojeda, J., & Soriano, V. (2020). The resurgence of medical ethics during the coronavirus disease (COVID)-19 Outbreak. *AIDS Reviews*, *22*(2), 123. https://doi.org/10.24875/aidsrev.m20000034

DePergola, P. A., II (2020). Ethical guidelines for the treatment of patients with suspected or confirmed novel coronavirus disease (Covid-19). *Online Journal of Health Ethics, 16*(1), 1–57. https://doi.org/10.18785/ojhe.1601.04

Ditwiler, R. E., Swisher, L. L., & Hardwick, D. D. (2021). Professional and ethical issues in United States acute care physical therapists treating patients with COVID-19: stress, walls, and uncertainty. *Physical Therapy, 101*(8), 1–10. https://doi.org/10.1093/ptj/pzab122

Drake, D. H., De Bonis, M., Covella, M., Agricola, E., Zangrillo, A., Zimmerman, K. G., & Cobey, F. C. (2020). Echocardiography in pandemic: front-line perspective, expanding role of ultrasound, and ethics of resource allocation. *Journal of the American Society of Echocardiography, 33*(6), 683–689. https://doi.org/10.1016/j.echo.2020.04.007

Ducharlet, K., Trivedi, M., Gelfand, S. L., Liew, H., McMahon, L. P., Ashuntantang, G., Brennan, F., Brown, M., & Martin, D. E. (2021). Moral distress and moral injury in nephrology during the COVID-19 pandemic. *Seminars in Nephrology*, *41*(3), 253–261. https://doi.org/10.1016/j.semnephrol.2021.05.006

Elmas, Ö. F., Demirbaş, A., Atasoy, M., Türsen, Ü., & Lotti, T. (2020). Teledermatology during COVID-19 pandemic: Ethical and legal considerations about the principles of treatment prescription and privacy. *Dermatologic Therapy, 33*(4), 1–2. https://doi.org/10.1111/dth.13781

Fahed, M., Barron, G. C., & Steffens, D. C. (2020). Ethical and logistical considerations of caring for older adults on inpatient psychiatry during the COVID-19 pandemic. *The American Journal of Geriatric Psychiatry*, *28*(8), 829–834. https://doi.org/10.1016/j.jagp.2020.04.027

Fiscon, G., Conte, F., Farina, L., & Paci, P. (2021). SaveRUNNER: A network-based algorithm for drug repurposing and its application to COVID-19. *PLOS Computational Biology*, *17*(2), 1–30. https://doi.org/10.1371/journal.pcbi.1008686

Gamboa-Antiñolo, Fernando-Miguel. (2021). Pandemic, public policy and ethics. *Gaceta*

Sanitaria, 35(2). https://doi.org/10.1016/j.gaceta.2020.09.009

Gross, M. S., Harrington, B. J., Sufrin, C. B., & Faden, R. R. (2020). Rethinking "Elective" Procedures for Women's Reproduction during Covid-19. *The Hastings Center Report*, *50*(3), 40. https://doi.org/10.1002/hast.1130

Harkin, D. W. (2020). Ethics for surgeons during the COVID-19 pandemic, review article. *Annals of Medicine and Surgery*, *55,* 316–319. https://doi.org/10.1016/j.amsu.2020.06.003

Hogan, J., Howlett, M., Murphy M. (2022). Re-thinking the coronavirus pandemic as a policy punctuation: COVID-19 as a path-clearing policy accelerator, *Policy and Society*, *41,* 40-52. https://doi.org/10.1093/polsoc/puab009

Howard, M., & Kohlmeier, P. S. (2021). Liability in the time of coronavirus the ethical necessity of expanding the legal protections afforded to healthcare workers during the COVID-19 pandemic. *Issues in Law & Medicine, 36*(2), 163–191.

Ino, H., Nakazawa, E., & Akabayashi, A. (2021). Drug Repurposing for COVID-19: Ethical considerations and roadmaps. *Cambridge Quarterly of Healthcare Ethics, 30*(1), 51–58. https://doi.org/10.1017/S0963180120000481

Iserson, K. V. (2021). Ethics, personal responsibility, and the pandemic: a new triage paradigm. *Journal of Emergency Medicine.* https://doi.org/10.1016/j.jemermed.2021.11.019

Jaziri, R., & Alnahdi, S. (2020). Choosing which COVID-19 patient to save? The ethical triage and rationing dilemma. *Ethics, Medicine and Public Health*, *15.* https://doi.org/10.1016/j.jemep.2020.100570

Jeffrey, D. I. (2020). Relational ethical approaches to the COVID-19 pandemic. *Journal of the Institute of Medical Ethics, 46(*8), 495–498. https://doi.org/10.1136/medethics-2020-106264

Kaplan, B. (2020). Revisiting Health information technology, ethical, legal, and social issues and evaluation: Telehealth/telemedicine and Covid-19. *International Journal of Medical Informatics, 143*. https://doi.org/10.1016/j.ijmedinf.2020.104239

Koski, C., & Workman, S. (2018). Drawing practical lessons from punctuated equilibrium theory. *Policy and Politics 46*(2), 293–308. https://doi.org/10.1332/030557318X15230061413778

Kuhlmann, J., & van der Heijden, J. (2018). What is known about punctuated equilibrium theory? And what does that tell us about the construction, validation, and replication of knowledge in the policy sciences? *Review of Policy Research*, *35*(2), 326–347. https://doi.org/10.1111/ropr.12283

Langedijk, J., Mantel-Teeuwisse, A. K., Slijkerman, D. S., & Schutjens, M. H. (2015). Drug repositioning and repurposing: terminology and definitions in literature. *Drug Discovery Today*, *20*(8), 1027–1034. https://doi.org/10.1016/j.drudis.2015.05.001

Lechanoine, F., & Gangi, K. (2020). COVID-19: Pandemic of cognitive biases Impacting human behaviors and decision-making of public health policies. *Frontiers in Public Health*, *8*, 613290. https://doi.org/10.3389/fpubh.2020.613290

Lim, S., DeBruin, D. A., Leider, J. P., Sederstrom, N., Lynfield, R., Baker, J. V., Kline,

S., Kesler, S., Rizza, S., Wu, J., Sharp, R. R., & Wolf, S. M. (2020). Developing an ethics framework for allocating remdesivir in the COVID-19 pandemic. *Mayo Clinic Proceedings*, *95*(9), 1946–1954. https://doi.org/10.1016/j.mayocp.2020.06.016

Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. In D. D. Williams (Ed.), *Naturalistic evaluation (New Directions for Evaluation, Vol. 30,* pp. 73–84). Jossey-Bass https://doi.org/10.1002/ev.1427

Marinelli, E., Busardò, F. P., & Zaami, S. (2020). Intensive and pharmacological care in times of COVID-19: A "special ethics" for emergency? *BMC Medical Ethics*, *21*(1), N.PAG. https://doi.org/10.1186/s12910-020-00562-7

Martin, D. E., Parsons, J. A., Caskey, F. J., Harris, D. C. H., & Jha, V. (2020). Ethics of kidney care in the era of COVID-19. *Kidney International*, *98*(6), 1424–1433. https://doi.org/10.1016/j.kint.2020.09.014

Markose, A., Krishnan, R., & Ramesh, M. (2016, October). Medical ethics. *Journal of Pharmacy & Bioallied Sciences*. Retrieved January 2, 2022, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5074007/

McGuire, A. L., Aulisio, M. P., Davis, F. D., Erwin, C., Harter, T. D., Jagsi, R., Klitzman, R., Macauley, R., Racine, E., Wolf, S. M., Wynia, M., & Wolpe, P. R. (2020). Ethical challenges arising in the COVID-19 pandemic: an overview from the Association of Bioethics Program Directors (ABPD) Task Force. *American*

Journal of Bioethics, *20*(7), 15–27. https://doi.org/10.1080/15265161.2020.1764138

Medical treatment beyond first aid. Worker's Compensation. (2018, November 12). Retrieved January 2, 2022, from https://www.wisconsin.edu/workers-compensation/coordinators/osha-record/medical-treatment/

Miljeteig, I., Defaye, F., Desalegn, D., & Danis, M. (2019). Ethical Dilemmas Measure. PsycTESTS. https://doi.org/10.1037/t78597-000

Miljeteig, I., Forthun, I., Hufthammer, K. O., Engelund, I. E., Schanche, E., Schaufel, M., & Onarheim, K. H. (2021). Priority-setting dilemmas, moral distress and support experienced by nurses and physicians in the early phase of the COVID-19 pandemic in Norway. *Nursing Ethics*, *28*(1), 66–81. https://doi.org/10.1177/0969733020981748

Mishra, N. K., & Baba, M. H. (2021). Delayed care is no care: covid-19 impact on cancer patients an ethical perspective. JK Practitioner, 26(1/2), 59–66.

Minkoff, H., & Ecker, J. (2021). Balancing risks: making decisions for maternal treatment without data on fetal safety. *American Journal of Obstetrics and Gynecology*, *224*(5), 479–483. https://doi.org/10.1016/j.ajog.2021.01.025

Mohamed, K., Yazdanpanah, N., Saghazadeh, A., & Rezaei, N. (2021). Cognitive biases affecting the maintenance of COVID-19 pandemic. *Acta Bio-Med: Atenei Parmensis*, *92(*2), e2021102. https://doi.org/10.23750/abm.v92i2.11073

Mohideen, M.R. and Ng Yiwey, F.M., (2020). Ethical dilemmas in pandemics - lessons from COVID -19. *Galle Medical Journal*, *25*(2), pp.12–18.

https://doi.org/10.4038/gmj.v25i2.8019

Moloney, K., & Moloney, S. (2020). Australian quarantine policy: from centralization to coordination with mid-pandemic COVID-19 shifts. *Public Administration Review*, *80(*4), 671. https://doi.org/10.1111/puar.13224

Morley, G., Grady, C., McCarthy, J., & Ulrich, C. M. (2020). Covid-19: ethical challenges for nurses. *The Hastings Center Report, 50(*3), 35. https://doi.org/10.1002/hast.1110

Mouratidis, K. (2021). How COVID-19 reshaped quality of life in cities: A synthesis and implications for urban planning. *Land Use Policy*, *111.* https://doi.org/10.1016/j.landusepol.2021.105772

Munir, M. A., Tandiabang, P. A., Setyawati, T., Basry, A., Cyio, A. D., & Rahman, N. (2021). Bioethical perspective of convalescent plasma therapy for COVID-19: A systematic review. *Transfusion Clinique et Biologique.* https://doi.org/10.1016/j.tracli.2021.03.005

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods, 16(*1). https://doi.org/10.1177/1609406917733847

O'Neal, L., Heisler, M., Mishori, R., & Haar, R. J. (2021). Protecting providers and patients: results of an Internet interviews of health care workers' risk perceptions and ethical concerns during the COVID-19 pandemic. *International Journal of Emergency Medicine*, *14*(1), 1–11. https://doi.org/10.1186/s12245-021-00341-0

Ong, W. Y., Yee, C. M., & Lee, A. (2012). Ethical dilemmas in the care of cancer patients near the end of life. *Singapore Medical Journal, 53*(1), 11–16.

Pannucci, C. J., & Wilkins, E. G. (2010). Identifying and avoiding bias in research. *Plastic and Reconstructive Surgery*, *126*(2), 619–625. https://doi.org/10.1097/PRS.0b013e3181de24bc

Parchand, V. N., Milner, R., Angelos, P., Posner, M. C., Fung, J. J., Agrawal, N., Jeevanandam, V., & Matthews, J. B. (2020). Medically necessary, time-sensitive procedures: scoring system to ethically and efficiently manage resource scarcity and provider risk during the COVID-19 pandemic. *Journal of the American College of Surgeons, 231*(2), 281–288. https://doi.org/10.1016/j.jamcollsurg.2020.04.011

Parchani A, Vidhya K, Panda PK, Rawat VS, Bahurupi YA, Kalita D, Kumar H, & Dr N. (2021). Fear, anxiety, stress, and depression of novel coronavirus (COVID- 19) pandemic among patients and their healthcare workers – a descriptive study. *Psychology Research and Behavior Management, 14*, 1737–1746. https://doi.org/10.2147/prbm.s324233

Parekh de Campos, A., & Daniels, S. (2021). Ethical implications of COVID-19: palliative care, public health, and long-term care facilities. *Journal of Hospice & Palliative Nursing*, *23*(2), 120–127. https://doi.org/10.1097/njh.0000000000000735

Patterson, J. E., Edwards, T. M., Griffith, J. L., & Wright, S. (2021). Moral distress of medical family therapists and their physician colleagues during the transition to

COVID-19. *Journal of Marital & Family Therapy*, *47*(2), 289–303. https://doi.org/10.1111/jmft.12504

Patton, M. Q. (20141029). Qualitative Research & Evaluation Methods: Integrating Theory and Practice, 4th Edition. [VitalSource Bookshelf version]. Retrieved from vbk://9781483314815

Payne, J. D., Sims, K., Peacock, C., Welch, T., & Berggren, R. E. (2021). Evidence-based approach to early outpatient treatment of SARS-CoV-2 (COVID-19) Infection. *Baylor University Medical Center Proceedings, 34(*4), 464–468. https://doi.org/10.1080/08998280.2021.1925049

Pope, T. M. (2018). The best interest standard for health care decision making: definition and defense. *American Journal of Bioethics, 18(*8), 36–38. https://doi.org/10.1080/15265161.2018.1485775

Prager, K. M., Dagi Glass, L. R., Wang, M., Chen, R. W. S., Liebmann, J. M., & Cioffi, G. A. (2021). Ophthalmology and ethics in the COVID-19 era. *American Journal of Ophthalmology*, *224*, 158–162. https://doi.org/10.1016/j.ajo.2020.11.008

Ravitch, S. M, and Carl, N. M., (2016). Qualitative research: Bridging the conceptual, theoretical, and methodological, Sage Publication.

Raturi, M., Kala, M., Das, K., & Kusum, A. (2021). Reviewing the ethical concerns of the convalescent plasma therapy in COVID-19. *Journal of Laboratory Physicians, 13*(1), 91–94. https://doi.org/10.1055/s-0041-1727585

Riege, A.M. (2003), "Validity and reliability tests in case study research: a literature review with "hands-on" applications for each research phase", *Qualitative Market*

Research, Vol. 6 No. 2, pp. 75-86. https://doi.org/10.1108/13522750310470055

Romdhani, M., Kohler, S., Koskas, P., & Drunat, O. (2021). Ethical dilemma for healthcare professionals facing elderly dementia patients during the COVID-19 pandemic. *L'Encephale, S0013-7006*(21)00226-8. Advance online publication. https://doi.org/10.1016/j.encep.2021.09.003

Rubin, H. J. & Rubin, I. S. (2012). Qualitative interviewing. The art of hearing data. Thousand Oaks, CA: Sage Publications, Inc.

Rylett, R. J., Alary, F., Goldberg, J., Rogers, S., & Versteegh, P. (2020). Covid-19 and Priorities for Research in Aging. *Canadian Journal on Aging*, *39*(4), 500–505. https://doi.org/10.1017/S0714980820000331

Sabatello, M., Burke, T. B., McDonald, K. E., & Appelbaum, P. S. (2020). Disability, Ethics, and Health Care in the COVID-19 Pandemic. A*merican Journal of Public Health*, *110*(10), 1523–1527. https://doi.org/10.2105/AJPH.2020.305837

Sciubba, D. M., Ehresman, J., Pennington, Z., Lubelski, D., Feghali, J., Bydon, A., Chou, D., Elder, B. D., Elsamadicy, A. A., Goodwin, C. R., Goodwin, M. L., Harrop, J., Klineberg, E. O., Laufer, I., Lo, S.-F. L., Neuman, B. J., Passias, P. G., Protopsaltis, T., Shin, J. H., Benzel, E. C. (2020). Scoring system to triage patients for spine surgery in the setting of limited resources: application to the coronavirus disease 2019 (COVID-19) Pandemic and Beyond. *World Neurosurgery*, *140,* e373–e380. https://doi.org/10.1016/j.wneu.2020.05.233

Shaw, D. (2021). Triaging ethical issues in the coronavirus pandemic: how to prioritize bioethics research during public health emergencies. *Bioethics, 35*(4), 380.

https://doi.org/10.1111/bioe.12859

Shojaei, A., & Salari, P. (2020). COVID-19 and off label use of drugs: an ethical viewpoint. *DARU Journal of Pharmaceutical Sciences, 28*, 1–5. https://doi.org/10.1007/s40199-020-00351-y

Sperling, D. (2021). Ethical dilemmas, perceived risk, and motivation among nurses during the COVID-19 pandemic. *Nursing Ethics*, *28*(1), 9–22. https://doi.org/10.1177/0969733020956376

Subbian, V., Solomonides, A., Clarkson, M., Rahimzadeh, V. N., Petersen, C., Schreiber, R., DeMuro, P. R., Dua, P., Goodman, K. W., Kaplan, B., Koppel, R., Lehmann, C. U., Pan, E., & Senathirajah, Y. (2021). Ethics and informatics in the age of COVID-19: challenges and recommendations for public health organization and public policy. *Journal of the American Medical Informatics Association*, *28(*1), 184–189. https://doi.org/10.1093/jamia/ocaa188

Suryadi, T. & Kulsum, K. (2020). Content validity for the research instrument regarding ethical issues in handling the Covid-19 pandemic. *Periódico Tchê Química, 17*(36), 100–118. https://doi.org/10.52571/ptq.v17.n36.2020.116_periodico36_pgs_100_118.pdf

Swazo, N., Talukder M.N., & Ahsan, M.K. (2020). A Duty to treat? A Right to refrain? Bangladeshi physicians in moral dilemma during COVID-19. *Philosophy, Ethics, and Humanities in Medicine, 15(*1), 1–23. https://doi.org/10.1186/s13010-020-00091-6

Thomas, J. C., Dasgupta, N., & Martinot, A. (2007). Ethics in a pandemic: an interview

of the state pandemic influenza plans. *American Journal of Public Health, 97* (Suppl 1), S26–S31. https://doi.org/10.2105/AJPH.2006.093443

Top, K. A., Esteghamati, A., Kervin, M., Henaff, L., Graham, J. E., & MacDonald, N. E. (2020). Governing off-label vaccine use: An environmental scan of the Global National Immunization Technical Advisory Group Network. *Vaccine*, *38*(5), 1089–1095. https://doi.org/10.1016/j.vaccine.2019.11.033

van der Heijden, J., Kuhlmann, J., Lindquist, E., & Wellstead, A. (2021). Have policy process scholars embraced causal mechanisms? A review of five popular frameworks. *Public Policy & Administration, 36*(2), 163–186. https://doi.org/10.1177/0952076718814894

Verduzco, G. M., Rydberg, L., Sullivan, M. N., & Mukherjee, D. (2021). In this for the long haul: ethics, COVID-19, and rehabilitation. *PM & R: Journal of Injury, Function & Rehabilitation*, *13*(3), 325–332. https://doi.org/10.1002/pmrj.12554

Voit, K., Timmermann C., & Steger F. (2021). Medication of hydroxychloroquine, remdesivir and convalescent plasma during the COVID-19 pandemic in Germany—an ethical analysis. *International Journal of Environmental Research and Public Health*, *18*(5685), 5685. https://doi.org/10.3390/ijerph18115685

Welie, J. V., ten Have, H. A. (2014). The ethics of forgoing life-sustaining treatment: theoretical considerations and clinical decision making. *Multidisciplinary Respiratory Medicine*, *9*(1), 14. https://doi.org/10.1186/2049-6958-9-14

Westerduin, D. Dujardin, J., Schuurmans, J., Engels, Y., & Wichmann, A. (2021). Making complex decisions in uncertain times: experiences of Dutch GPs as gatekeepers regarding hospital referrals during COVID-19—a qualitative study. *BMC Medical Ethics, 22*(1), 1–8. https://doi.org/10.1186/s12910-021-00725-0

Whitney, B. M. (2021). Ethical considerations for the study of potentially harmful or ineffective treatments. *Professional Psychology: Research and Practice*, *52(*1), 12–20. https://doi.org/10.1037/pro0000341

WHO advises against use of convalescent plasma for Covid-19. (2021). Pulse International, 22(24), 1–13.

WHO Guidelines on hand hygiene in health care: first global patient safety challenge clean care is safer care. Geneva: World Health Organization; 2009. Appendix 1, Definitions of health-care settings and other related terms. Available from: https://www.ncbi.nlm.nih.gov/books/NBK144006/

Yale, S., Lee, J., Beneschott, N., & Rogers, A. (2021). Pausing during the pandemic: addressing cognitive biases in providers' medical decision-making during the COVID-19 era. *WMJ: Official Publication of the State Medical Society of Wisconsin*, *120*(3), 241–243.

Zare, H., Eisenberg, M., & Anderson, G. (2021). Charity care and community benefit in non-profit hospitals: Definition and requirements. *Inquiry: The Journal of Health Care Organization, Provision, and Financing*, *58*. https://doi.org/10.1177/00469580211028180

Appendix: Interview Protocol

Date:

Time:

Place:

Participant Code:

Description of Study: This interview is part of PhD study to collect data about ethical considerations in treating patients with COVID. Your responses to these questions will be kept confidential. You have been assigned a participant code that is not associated to your personal information and will create deidentified data.

Question Categories:

Demographics

1. Gender: a. Male b. Female c. Prefer not to answer

2. Age: a. 18-30 b. 31-50 c. 50+ d. Prefer not to answer

3. Role in Healthcare Facility

   a. physician b. nurse c. pharmacist d. therapist e. other: _____

4. Where do you practice?

   a. hospital b. doctors' office c. long-term care facility d. other: _____

5. Do you participate in budget decisions for your facility?

   a. Yes b. No

Ethical Dilemmas

Below is a list of situations where medical decision-making can be difficult. Since the beginning of the COVID Pandemic have you been in the following situations?

1) You worried if you were helping or hurting a patient with COVID with the interventions available

   a. Often b. Sometimes c. Rarely d. Never e. Not applicable

2) You felt you were over treating patients with COVID, i.e. providing treatment or diagnostic tests that they could not benefit from.

   a. Often b. Sometimes c. Rarely d. Never e. Not applicable

3) You were restricting treatment to a patient to give those resources to someone who could benefit more (i.e. hospital bed, ventilator, medication)

   a. Often b. Sometimes c. Rarely d. Never e. Not applicable

4) Limitation of resources required you to make a difficult choice

   a. Often b. Sometimes c. Rarely d. Never e. Not applicable

5) There was significant disagreement among health care personnel on continuing treatment of the patient due to lack of resources

   a. Often b. Sometimes c. Rarely d. Never e. Not applicable

6) You cared for COVID patients that were not in a state to make a decision for themselves (like unconscious/ disabled), and you had to decide for them

   a. Often b. Sometimes c. Rarely d. Never e. Not applicable

7) There was significant disagreement among family members on continuing treatment of the patient

   a. Often b. Sometimes c. Rarely d. Never e. Not applicable

8) You cared for a terminally ill COVID patient and the question on when to stop treatment or a “Do not resuscitate” order came up

a. Often b. Sometimes c. Rarely d. Never e. Not applicable

9) You treated a COVID patient with off-label drugs

a. Often b. Sometimes c. Rarely d. Never e. Not applicable

10) You felt uncomfortable treating unvaccinated COVID patients

a. Often b. Sometimes c. Rarely d. Never e. Not applicable

11) If you have experienced any of the situations listed in the previous questions, or any other striking ethical dilemma, can you please describe a ethical dilemma treating COVID patients you have encountered in your own words?

12) What is your biggest concern with treating patients with COVID?

13) Describe a stressful situation treating patients with COVID.

14) What interaction did you have with patient family members while treating patients with COVID?

15) How did your personal ethics effect your decision-making process in treating patients with COVID?

Survey Instrument Source

The Ethical Dilemmas Measure created by Miljeteig, Defaye, Desalegn, & Danis, in 2019 as the basis of the interview instrument and changes were made from the original interview instrument. Under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), unrestricted use, distribution, and reproduction in any medium is permitted as long as you provide