An exploratory study of vaccinations amongst Staff at a South African Research Institution: Personal choice or Mandatory?

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A dissertation submitted in partial fulfillment of the requirements for the degree of Master of Social Science (Health Research Ethics) in the School of Applied Human Sciences (Psychology) College of Humanities.

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2024

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Acknowledgments

"Be still and know that I am God" – Psalm 46:10

Thank you to Mrs. Jacintha Toohey (supervisor), and Dr. Candice Groenewald (co-supervisor) for your guidance and support throughout this journey.

My appreciation goes to the research institution for allowing me to collect data for this dissertation. A special thank you to the research participants with whom I shared interesting and educational conversations. Thank you for your time, contributions, and support.

A heartfelt thank you to Dr. Zaynab Essack for your unending support and encouragement. My appreciation also goes to the SARETI Executive team, thank you for this opportunity. Thank you to Ms. Carla Pettit and Ms. Mandy Harwood.

I also thank Dr. Caroline Goodier and Ms. Viv O'Neill for your assistance with editing and referencing.

Thank you to Dr. Bronwynne Anderson for your support.

The research reported in this publication was supported by the Fogarty International Center of the National Institutes of Health under Award Number R25TW001599. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Abstract

Controversies related to immunisation have existed since 1840. The focus of much discussion has been on the efficacy of vaccination in protecting public health and safety, as well as the question of vaccine mandates infringing upon individual freedoms. The COVID-19 pandemic, declared by the World Health Organization on March 11, 2020, reignited these debates.

In South Africa, under Section 27(2) of the Disaster Management Act No 57 of 2002, the Minister of Employment and Labour is authorised to issue directives linked to the country's state of disaster. As a result, the COVID-19 Occupational Health and Safety Measures in Workplaces directive (C19 OHS) (Department of Employment and Labour, 2020) was issued by the Minister of Employment and Labour in terms of regulation 10(8) issued by the Minister of Cooperative Governance and Traditional Affairs in terms of Section 27(2) of the Disaster Management Act No 57 of 2002 (Republic of South Africa, 2002). The objective of the directive was to implement occupational health and safety measures in the workplace to stop the spread of the COVID-19 virus and to provide guidance to employers on how to deal with COVID-19 in the workplace. Consequently, this brought to light the need to tackle the dilemma of individual versus collective rights in the context of vaccine mandates in the workplace.

The study aimed to explore participants' knowledge and understanding of ethical, human rights, and legal aspects of vaccination. It also sought to understand whether participants believe vaccines should be a personal choice or mandatory, as well as their experiences with COVID-19 vaccination in the workplace.

This study used a qualitative methodology approach, conducting 20 semi-structured, in-depth, open-ended individual interviews that took place either face-to-face or virtually. The study sample comprised of staff members from a South African research institution, across three provinces. The interview data were transcribed and then loaded onto Atlas. ti software for coding, using the thematic analysis approach.

This social science study employs an interdisciplinary approach that considers the human rights, ethics, and legal aspects in the workplace setting concerning mandatory vaccination policies. The

research aimed to provide valuable insights from participants in this study concerning the multifaceted interactions between human rights law, bioethics, and the social dynamics of mandatory vaccination policies. The research also utilises the social constructionist framework as a conceptual model to examine and understand how individuals have shaped their perceptions regarding personal freedoms, the mandatory nature of vaccination, trust in vaccine role players, experiences with COVID-19 in the workplace, and the factors influencing their beliefs. This conceptual approach is used to analyse and interpret participants' viewpoints but does not dictate the entire study.

The study indicates that most participants are in favour of personal choice. These findings imply that, for these participants, individual choice in medical freedoms is paramount in healthcare decision-making, including vaccination. Recommendations are made for the South African government, vaccination policymakers, employers, and for future research.

Dedication

Dedicated to all who have suffered losses due to the COVID-19 pandemic.

Acronyms and abbreviations

ACVL	Anti-compulsory Vaccination League
AVLC	Anti-Vaccination League of Canada
AVLL	Anti-Vaccination League of London
BCEA	Basic Conditions of Employment Act
BOR	Bill of Rights
CCMA	Commission for Conciliation Mediation and Arbitration
CDC	Centers for Disease Control and Prevention
CEPI	Coalition for Epidemic Preparedness Innovations
CIOMS	Council for International Organizations of Medical Sciences
COVAX	COVID-19 Vaccine Global Access Facility
COVID-19 OHS	COVID-19 Occupational Health and Safety Measures in Workplaces Directive
DMA	Disaster Management Act
DoEL	Department of Employment and Labour
DoH	Department of Health
ECHR	European Convention on Human Rights
EEA	Employment Equity Act
GAVI	Vaccine Alliance
GVAP	Global Vaccine Action Plan
ICESCR	International Covenant on Economic, Social, and Cultural Rights
LAC19	Lex-Atlas: COVID-19
LRA	Labour Relations Act
MOA	Margin of Appreciation
NHA	National Health Act
NEASA	National Employers' Associations of South Africa
NEP	National Education Policy
NICD	National Institute for Communicable Diseases
NDoH	National Department of Health
OECD	Organisation for Economic Co-operation and Development
OHSA	Occupational Health and Safety Act
PHA	Public Health Act
SACHR	South African Commission for Human Rights
SAHRC	South African Human Rights Commission
SASA	South African Schools Act
UDBHR	Universal Declaration on Bioethics and Human Rights
UDHR	Universal Declaration of Human Rights
UNICEF	United Nations International Children's Emergency Fund

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Chapter One
Introduction and Study Overview

1.1 Introduction

This study explored the knowledge and understandings of immunisation and vaccinations of staff members in a South African research institution. It further sought to gain insight into their understandings and knowledge of the ethical, human rights, and legal aspects of vaccination and mandatory vaccinations. In particular, the participants' views on vaccination regarding it being a personal choice or mandatory have been interrogated. The study found it important to include participants' experiences of COVID-19 vaccination within the workplace, as COVID-19 is a recent occurrence, and the virus has had a tremendous impact on the global population. On the one hand, vaccines have been viewed as a remarkable way to understand the biological world that surrounds us and that is within us, and to use this knowledge to preserve health and the life of mankind (Federman, 2014). On the other hand, vaccine mandates infringe on the personal liberties of citizens (Denu et al., 2022).

A vaccine is a biological preparation of a synthetic substance (Six et al. 2012:295) that stimulates antibodies to produce immunity against a particular disease (Greenwood, 2014). Vaccines are considered the most effective and affordable way to prevent disease, disability, and death from infectious diseases. (Couch et al., 2023). The first non-laboratory vaccine, created in May 1796 by Dr. Edward Jenner, was a global breakthrough. Jenner developed the world's first vaccine through variolation, which involves using a non-tested virus on a convalescent human being; this rendered his research hazardous (Berche, 2022). Thereafter, Louis Pasteur, a French chemist and microbiologist, established the first laboratory-produced vaccine in 1872 for fowl cholera in chickens (World Health Organization, 2023a).

Vaccines have contributed significantly to improving global health (Greenwood, 2014). Since their discovery, they have proven to be highly effective in eradicating viruses, making them one of the significant medical achievements of modern civilisation (Balding, 2006:2). The World Health Organization (WHO) is a United Nations agency founded in 1948 that is devoted to promoting global health and safety (World Health Organization, n.d. b). To date, vaccines have been created

to protect against over 20 life-threatening diseases, leading to the prevention of 3.5–5 million deaths annually from illnesses like measles, pertussis, flu, tetanus (World Health Organization).

A profound public health immunisation success story began in 1967 when the WHO launched a global immunisation and surveillance plan to wipe out the smallpox virus (World Health Organization, 2023d). Smallpox is a highly contagious infectious and communicable disease caused by the variola virus (Zanders, 2004:9). According to the Centers for Disease Control and Prevention (CDC), on average three out of ten people who were infected with smallpox died (Centers for Disease Control and Prevention, 2019a). Much research in eradicating smallpox has been conducted and has shown to be successful; in 1980, smallpox was declared an eradicated disease globally (World Health Organization, 2023d).

1.2 Background and study rationale

This qualitative study explores the perceptions of staff members employed at a research institution as they pertain to personal choice or mandatory vaccinations in the workplace. This research study uses an interdisciplinary approach to explore the concept of mandatory vaccinations versus personal choice within the context of the workplace. In particular, the focus is on the dynamics of employees' understanding of workplace vaccination policies from human rights, ethics, and legal perspectives. This study hoped to contribute crucial insight of participants in the study into the complex interaction between constitutional laws, medical ethics, and the social dynamics of vaccination mandates.

The controversy around immunisation dates as far back as the year 1840, when the United Kingdom (UK) promulgated its first law on immunisation, the Vaccination Act of 1840 (Wolfe and Sharp, 2002:430). The authorities of the UK realised that they needed to implement radical measures to control the European-wide smallpox outbreak which began in 1837 (Krylova and Earn, 2020). The provisions of the Act banned the practice of variolation and allowed for free smallpox vaccination for citizens (Krylova and Earn, 2020). The Act was amended several times. The Vaccination Act of 1853 imposed smallpox vaccinations for all infants from three months of age and parents who did not comply were liable to a fine or imprisonment (Adedeji, 2021:1).

It was also during this period that people began to oppose compulsory smallpox vaccination, and this response spread to other countries such as Europe and North America (Adedeji, 2021:1). The Act was later amended to the Vaccination Act of 1867, extending the compulsory smallpox vaccination requirement to adolescents aged 14 (Adedeji, 2021; Wolfe, 2002). This period of the smallpox outbreak was the first known historically documented public health response where the government-imposed laws that placed limitations on civil liberties concerning a pandemic (Wolfe and Sharp, 2002:430).

In 1867, the Anti-Vaccination League of London (AVLL) was established because the vaccination Acts were perceived by those who opposed compulsory vaccination as an infringement on their liberty and choice (Wolfe and Sharp, 2002:430). In its mission statement, AVLL stated that the Vaccination Act of 1867 is an infringement on the rights of parents to protect their children from diseases (Wolfe and Sharp, 2002:430). Furthermore, it noted that it is the role of parliament to protect the liberty of all persons, including those who refuse to vaccinate. However, since the enactment of the Vaccination Act of 1867, citizens' liberties have been infringed by rendering refusal to vaccinate punishable through fines or imprisonment for not complying with the compulsory vaccination laws, and that parliament was deserving of public condemnation (Wolfe and Sharp, 2002:431). Thereafter, the Vaccination Act of 1898 was enacted, which removed cumulative penalties on citizens, providing for parents to decide according to their conscience about vaccination and included vaccination exemptions. Later, it was further amended as the Vaccination Act of 1907 which removed the provisions that allowed applications to the Magistrates' Court for vaccination exemptions (Adedeji, 2021).

As mentioned earlier, the existing literature that has been explored highlights that immunisation is a proven scientific method used to preserve people's health and safety against various infectious diseases (Galiza and Heath, 2021). For example, hepatitis B is a liver infection caused by the hepatitis B virus (HBV) (CDC, 2023b). Two billion people have been infected with this virus and 600,000 die each year from it (Shepard, 2006:112). In 1981, the HBV vaccine was licensed in the United States of America (USA) and has been reported to be one of the most used vaccines worldwide (Shepard, 2006). In addition, it is included in the regular vaccination schedule for infants and children worldwide (Shepard, 2006:112). This has led to notable changes in HBV

infection rates, with evidence suggesting a considerable decrease in the prevalence of HBV-related complications as vaccinated populations grow older. Moreover, the HBV vaccine has been recognised as the initial global vaccine for preventing cancer and sexually transmitted diseases (Shepard, 2006).

Another disease, the rinderpest virus, was eradicated in the year 2011 (Morens et al., 2011). According to the Centers for Disease Control and Prevention (CDC), rinderpest is a contagious viral disease affecting cloven-hoofed animals (Hamilton et al., n.d.). Furthermore, Morens et al. (2011) postulate that the rinderpest virus was incidentally responsible for human deaths that resulted from agricultural famine and disease. In the USA, vaccine rollouts have eradicated the wild poliovirus (polio) through continuous vaccination (Kidd, 2023). Polio is a communicable virus that can cause paralysis in an infected person (CDC, 2023a). Since 1988, cases of polio have decreased by over 99% (WHO, 2023c). An estimated 350,000 cases were reported in more than 125 endemic countries, but in the year 2021, the number of reported cases significantly decreased to only six reported cases globally (WHO, 2023b). Three different forms of poliovirus, known as serotypes, are recognised: poliovirus type 1, poliovirus type 2, and poliovirus type 3 (Bandyopadhyay et al. 2015:791). The eradication of type 2 occurred in 1999, while the elimination of type 3 was achieved in 2020 (WHO, 2023b). Notably, reports indicate that type 1 is still present in Pakistan and Afghanistan (WHO, 2023b).

As indicated in the development of vaccines for smallpox, HBV, rinderpest, and polio, it is evident that there is controversy surrounding vaccination. Much of the debate concerns balancing the competing rights of the individual versus the collective (Dameski et al., 2022). On the one hand, arguments have been raised against using emergency state power as a ground to limit individual constitutional rights, depriving citizens of individual freedoms and posing a risk of arbitrary exercise of public power (Dube, 2023:143). As such, it has been argued that vaccine mandates infringe on individual autonomy and have implications for collective versus individual rights (Alahmad, 2023). On the other hand, arguments have been raised in favour of the use of emergency state power and the suspension of certain constitutionally protected freedoms during a national disaster, in the interest of saving lives (Bohler-Muller et al. 2021:4). Mr. Cyril Ramaphosa, the South African president, characterised it as the delicate balance between 'lives and livelihoods'

(Bohler-Muller et al. 2021:6). In Chapter 2 of the Bill of Rights of the South African Constitution (Republic of South Africa, 1996), section 12 provides that everyone has the right to bodily and psychological integrity and the right to security in and control over their body which makes this topical issue highly controversial in terms of personal choice and mandatory vaccinations.

Numerous studies have been conducted in the past three years on COVID-19, with a limited focus on social science perspectives, particularly regarding institutional staff members. Notable articles include "Clinical features of patients infected with the 2019 novel coronavirus in Wuhan, China" in 2020 (Ahmed et al. 2023:3); "Safety and Efficacy of the BNT162b2 mRNA Covid-19 Vaccine" in 2021 (Wang et al. 2023:2290); and "COVID-19 vaccine hesitancy in the UK: the Oxford Coronavirus Explanations, Attitudes, and Narratives Survey II" in 2022 (Liu, 2023:2628).

Worldwide, COVID-19 vaccine mandates have created a dilemma for the global population because mandates impose restrictions on citizens' freedoms, which is a contravention of their human rights. COVID-19 has underscored the need to address the issue of individual autonomy versus collective rights regarding vaccination rollouts during a pandemic. However, this broad discussion is not fully explored in this thesis. Rather it focusses on the narrower topical issue of personal choice and mandatory vaccinations which contributed to future debates on individual autonomy versus collective rights.

It has become increasingly important to consider how historical approaches to vaccination programmes within the South African health system can inform current efforts. Historically, vaccination programmes are not new to the South African health system. For example, Section 28 of the Bill of Rights enshrines a child's right to education (Republic of South Africa, 1996). However, in the interest of protecting all learners, Section 16 of the National Education Policy Act 27 of 1996 (Republic of South Africa, 1996), states that proof of immunisation against communicable diseases such as polio, measles, tuberculosis, diphtheria, tetanus, and hepatitis B is a requirement for a school admission application (Motshekga, 2021:9). In a more recent development, COVID-19 vaccination has been included in the list of childhood immunisations for children from the age of 12, according to the United Nations International Children's Emergency Fund (UNICEF, 2023).

Concerning COVID, on the 11th of March 2020, COVID-19 was declared a pandemic by the WHO (Cucinotta and Vanelli, 2020:157). COVID-19 has been the most consequential global health crisis since the 1918 influenza (H1N1) pandemic (Cascella et al. 2023:203). Prevention and control measures for disease outbreaks during the H1N1 era were limited because there was a lack of global surveillance and knowledge on the influenza viruses, and no vaccines had been developed (Uyeki et al., 2018). COVID-19 is a highly contagious virus caused by severe acute respiratory syndrome (Katoto et al., 2022), with a mortality rate of more than six million people worldwide during the period 2019 to 2021 (Cascella et al., 2023). In its strategy policy, the WHO asserted that vaccination of the global population against COVID-19 is a key strategy to regulate the pandemic in crisis (WHO, 2022). By July 2021, approximately 18 vaccines had been approved for emergency use by at least one regulatory authority (Ndwandwe and Wiysonge, 2021:111). South Africa took two key strategic approaches in response to the COVID-19 pandemic. Firstly, on the 15th of March 2020, Minister Nkosozana Dlamini-Zuma declared South Africa in a national state of disaster under Section 3, read together with Section 27(1) of the Disaster Management Act 57 of 2002 (DMA) (Republic of South Africa, 2002). Secondly, Section 27(2) of the DMA empowers the Minister to make regulations, issue directions, or authorise the issue of directions to prevent and combat disruption, assist and protect the public, protect property, and provide relief to the public (Republic of South Africa, 2002).

The South African government did not implement a nationwide mandatory vaccination for COVID-19. However, as part of reducing the risk of transmission in the workplace, Section 27(2) of the DMA of 2002 authorises the Minister of Employment and Labour to issue directives linked to the country's state of disaster (Republic of South Africa, 2002). The amended COVID-19 Consolidated Direction on Occupational Health and Safety Measures in Certain Workplaces (COVID-19 OHS Direction) (Department of Employment and Labour, 2021) authorises employers to implement a mandatory COVID-19 vaccination policy, which had to be read together with employment legislation and regulations such as the Labour Relations Act 66 of 1995; the Employment Equity Act 55 of 1998; the Occupational Health and Safety Act 95 of 1993; and the Basic Conditions of Employment Act 75 of 1997, which provides employers authority to introduce mandatory vaccine policies in the workplace.

In response to the WHO statement that vaccination of the global population against COVID-19 is a key strategy to regulate the pandemic in crisis, South Africa, in its national COVID-19 response plan, began its vaccination rollout strategy (South African Government). As mentioned above, the Department of Employment and Labour published an Occupational Health and Safety (OHS) directive in June 2021 that outlined a framework for employers to use at their discretion in the implementation of mandatory COVID-19 vaccination in workplace settings.

This study explores the complexities in a selected workplace setting related to vaccination mandates and the ways in which staff members have expressed their perceptions of vaccine mandate policies. In some instances, South African caselaw indicates legal implications where employees not adhering to the workplace mandatory vaccination policies were dismissed. For example, in the case of *Mulderij v Goldrush Group* (GAJB24054-21) [2022] ZACCMA 1 (hereafter referred to as the Mulderij case), Ms. Mulderij was employed as a Business Related and Training Officer by the Goldrush Group. Her occupation required her to engage with external clients and internal colleagues. Her employer had implemented the COVID-19 mandatory vaccination policy in the workplace, which required her to vaccinate against COVID-19. However, because Mulderij did not want to get vaccinated, her employer dismissed her, and the Commissioner of the Conciliation, Mediation, and Arbitration (CCMA) upheld the decision. Therefore, this qualitative study explored staff members' perspectives as to personal choice or mandatory vaccination at a South African workplace.

Understanding participants' perspectives about the interaction between ethical, human rights, and legal dimensions of mandatory vaccinations is crucial for policymakers and society. An understanding of participant perspectives is important because it helps to balance public health interests with individual rights, ensuring policies are ethically sound, legally viable, and respect human dignity. These understandings foster trust, promote effective public health strategies, and maintain social cohesion. Pandemic preparedness is vitally important for protecting public health, strengthening healthcare systems, and ensuring global health security (Lal et al., 2022). It involves learning from past experiences by addressing human rights, as well as ethical and legal considerations. Doing so can significantly improve our ability to respond effectively when a public health crisis occurs (Lal et al., 2022).

1.3 Aims of the study

This study focused on the following key aims:

1. To explore participants' knowledge and understanding of ethical, human rights, and legal aspects of vaccination and mandatory vaccination.
2. To explore whether participants feel vaccines should be a personal choice or mandatory.
3. To explore participants' experiences of COVID-19 vaccination within the workplace.

1.4 The structure of the dissertation

Chapter One: Introduction and Study Overview

This chapter introduces the study and provides the rationale, background, and aims of this dissertation. It provides a brief synopsis of each chapter: the literature review, methodology, findings of the data, discussion of the findings, and the conclusion and recommendations.

Chapter Two: Literature Review

This chapter reviews international and local existing literature on vaccinations. It pays particular attention to the history, background, and international developments concerning vaccination programmes. The literature on the history of mandatory vaccinations and widespread pandemics or outbreaks is gleaned and documented. This chapter will focus on a theoretical basis, exploring some of the philosophical debates, medical ethics, and human rights historical approaches on mandatory vaccinations and what steps or suggestions have been made by international organisations like the WHO. This chapter also focuses on the international and South African responses to the recent COVID-19 pandemic, focusing on South Africa's position from an ethical and human rights perspective concerning a national plan and the human rights debate on people's freedom of choice and mandatory vaccines. It also sets out the framework of the action plan suggested for institutional policy mechanisms.

Chapter Three: Research Methodology

This chapter presents the methodology employed for this study. The study employs a qualitative research design and a purposive sampling approach. This research uses primary data in the form of semi-structured, in-depth, open-ended individual interviews, held either face-to-face or

virtually. The study takes an informed approach, using human rights, bioethical principles, and COVID-19 vaccination workplace policies to develop the interview schedule and using the research aims to guide the interview questions. This chapter describes a brief account of the researcher's reflexivity, and it also presents a discussion of the social constructionist framework as a conceptual model to interpret and analyse the data. The ethical measures employed to ensure reliability, transferability, validity, and rigour throughout the study are also discussed.

Chapter Four: Research Findings

This chapter deals with the data following its transcription from audio data into textual data. The data is coded and categorised to identify key themes and sub-themes. The themes reflect on the study's aims, including human rights, ethical knowledge and understanding, perspectives on vaccination as a personal choice or mandatory, and the factors influencing perceptions and experiences of COVID-19 vaccination in the workplace. It briefly provides contextual information and an overview of the findings, which are thematically coded.

Chapter Five: Analysis and Discussion of Findings

This chapter focuses on analysing and discussing the research findings. The conceptual model, namely, the social constructionist framework is employed as a lens to interpret and analyse how participants have constructed their realities as they relate to vaccinations and the reasoning that influences their responses.

Chapter Six: Conclusions and Recommendations

This chapter provides an overview of each individual chapter. It also includes an outline of the study's limitations to enhance the quality of the research findings. Thereafter, the study offers detailed recommendations aimed at public health policymakers, employers, and for guiding future research efforts. The chapter concludes by offering additional concluding remarks to summarise all key points effectively.

1.5 Conclusion

Chapter one established the context of the research phenomena, the motivation for undertaking the study, and the importance of the research. A literature review will be presented in the next chapter.

Chapter Two
Literature Review

2.1 Introduction

This chapter reviews the existing literature on the topic being explored to construct the research problem, focusing on the history, background, and international developments concerning vaccination programmes. In particular, it presents a historical overview of how mandatory vaccinations have effectively combatted certain widespread pandemics or outbreaks. The chapter provides a theoretical basis, exploring philosophical debates, medical ethics, human rights considerations of mandatory vaccinations, and what steps or suggestions have been made by international organisations like the WHO. An account is given of the international and South African response to the recent COVID-19 pandemic, focusing on South Africa's position from an ethical and human rights perspective concerning a national plan and whether a national policy has been implemented. It also sets out the framework of the action plan suggested for institutional policy mechanisms. It is important for me as an emerging social scientist to set out key developments in the public domain. Furthermore, setting out some of the key legal policies and frameworks into the literature review is crucial for providing context to this study and for later informing policy recommendations. However, it is beyond the scope of the study to undertake case law and legal framework developments.

2.2 The history of vaccines

Figure 1: Edward Jenner performing first vaccination (Source: Science Photo Library, n.d.)

> *"The joy I felt at the prospect before me of being the instrument destined to take away from the world one of its greatest calamities was so excessive that I sometimes found myself in a kind of reverie* (Lavigne 2021:5)*."* - Dr. Edward Jenner

During the 15th century, illness prevention attempts were made worldwide; these included variolation, quarantine, and the isolation of infected people to stop the spread of viruses, for example, the smallpox virus (Thèves et al. 2014:210). Smallpox is known as one of the most lethal infectious diseases and is unique to humans (Thèves et al., 2014). The virus variant variola has a mortality rate of 30% (Thèves et al. 2014:210). Variolation was a dangerous technique of intradermally inoculating a small quantity of the virus from convalescent patients into healthy people (Berche, 2022). Variolation is derived from the smallpox name, 'la variole'. The practice of variolation dates to as early as 200 BCE (Before the Comon Era) (Thèves et al., 2014).

A disease that is related to the smallpox virus is the cowpox virus. Cowpox was a rare benign disease transmitted to milkmaids while milking infected cows in western England and Europe (Bruneau et al. 2023:3). Because dairymaids were known for their resistance to smallpox (Berche,

2022), Dr. Jenner hypothesised that they had developed an immunity to smallpox through a virus transmission that occurred when they used their hands to milk cows infected with cowpox (Spencer, 2022:45). In 1796, Jenner extracted a sample from the cowpox lesions to inoculate an adolescent boy (Spencer, 2022:45). The boy developed a fever, and some discomforts were reported, but no further symptoms. The boy was pronounced immune to smallpox when Jenner conducted a follow-up inoculation through the variolation technique by transferring the smallpox virus, however, there was no reaction (Berche, 2022). Jenner called the process "vaccination", which is a word derived from the Latin word "vacca" (Riedel, 2005:24).

2.3 The history of compulsory vaccination

Vaccine opposition emerged from people who did not support vaccination because they believed that vaccination was to the detriment of the health of children (Spencer, 2022). At first, the Royal Society rejected Jenner's findings (Spencer, 2022) because they lacked an understanding of how an organism develops immunity to a virus (Smith, 2012). Subsequently, however, clinical trials were conducted, and doctors in London and other cities took up his ideas. By the late 18th century, vaccination had become a safer alternative to variolation in Europe. In 1840, England's Parliament passed the National Vaccine Act, which banned variolation and made vaccination the first free medical service in Britain's history (Wolfe and Sharp, 2002:430).

Since the promulgation of the Vaccination Act of 1840, various amendments have occurred throughout its history (Adedeji, 2021). In 1853, vaccination was compulsory for all infants from three months of age and parents who did not comply were fined or imprisoned (Adedeji, 2021:1). In 1867, the Act's compulsory component was expanded to include children up to14 years old, including penalties for parents' non-compliance. The third amendment was in response to the anti-vaccine movements (Adedeji, 2021). In 1898, the Act abolished penalties for non-complying parents. It introduced the 'conscientious objector' concept (the right of an individual to refuse vaccination on the grounds of moral, religious, philosophical, or ethical beliefs) (Magwentshu et al., 2023). In 1907, the Act was amended to prohibit people from applying to the Magistrate's Court for vaccine exemptions (Spencer, 2022).

2.4 International human rights developments

In 1905, a smallpox pandemic occurred in the USA. In the interest of protecting public health and safety, vaccination was free and compulsory. People over 21 who did not vaccinate were fined, and exemptions for children on medical grounds were allowed (Mariner et al., 2005). A prominent USA case in the literature on vaccination is the landmark case of *Jacobson v. Massachusetts*, 197 U.S. 11 (1905), 1905 (hereafter referred to as the Jacobson case). This case raised the question of whether compulsory vaccination law violated Mr. Jacobson's 14th Amendment right to liberty and whether such laws violated the preamble of the US Constitution (Mariner et al. 2005:582). The US Supreme Court ruled that the preamble conveys the spirit of the law, and that compulsory vaccination was not a constitutional violation of his liberty because medical exemptions were available for qualifying children but not adults (Mariner et al., 2005). The court ruled that it is the state's role to protect public health duly, and because such a mandate is applicable equally amongst adults, it does not violate the 14th Amendment's equal protection clause. The conviction for failing to vaccinate and a five-dollar fine were upheld (Mariner et al. 2005:582).

The Jacobson case was a landmark case because it established the proportionality test (Mariner et al., 2005). The proportionality test applies where constitutional courts must decide on complex cases where competing rights and interests are questioned (Sobek and Montag, 2018). Generally, the decision is made that one right will prevail. Courts can consider several factors (Sobek and Montag, 2018), based on the proportionality test (Alexy, 2014). In the case of vaccination, the proportionality test implies that sufficient evidence needs to be provided that mandatory vaccination promotes the protection of public health. Such an intervention is deemed necessary when it is the only reasonable and justifiable measure to promote an aim to the best degree possible, compared to other less restrictive means (Möller, 2012).

Similarly in the South African context, to appeal against mandatory vaccination, the applicant would have to show the Constitutional Court that their right to bodily and psychological integrity, which includes the right to security in and control over their body, has been limited. The employer would then have to provide evidence that their workplace policy on mandatory vaccinations is reasonable and justifiable in line with government's objective to protect public health by reducing COVID-19 spread in the workplace, within the context of an open and democratic society. Further,

the employer would have to demonstrate that less restrictive means could not be achieved to meet the same objective.

In the literature on mandatory vaccination requirements for COVID-19, the Lex-Atlas: COVID-19 (LAC19) principles feature prominently. According to King et al. (2022:221) the LAC-19 principles provide guidance on the legality and constitutionality of mandatory vaccination. According to the LAC-19 principles, mandatory vaccination schemes must be regulated by statute, advised by law, and approved after four to six weeks of consultation by sub-national governments, opposition parties, trade unions, experts, the public, and others (King et al. 2022:221). Consultations and the government responses should be published before the passage of any bill, to ensure that the purposes of debates and amendments must be consistent with globally accepted constitutional principles and relate to non-delegation of core legislative functions. The intention is to ensure that significant policy issues and questions are addressed by legislation through informed legislative review processes (King et al.2022:221). Mandatory vaccination schemes must intersect with the legal principle of proportionality. This implies that the scheme is linked to a legitimate purpose based on an important public health objective and that there are less restrictive means to achieve that goal. As such penalties for non-compliance are important but not overly burdensome and disproportionate (King et al.2022:221).

In a recent case in the Czech Republic, *Vavřička And Others v. The Czech Republic* (Applications nos. 47621/13 and 5 others) [2021] European Court of Human Rights (Grand Chamber) (hereafter referred to as the Vavřička case), Mr. Vavřička was fined 110 Euros for refusing to vaccinate his two teenage children against diseases included in the compulsory vaccination programme under Czech law (Nugraha et al. 2021:579). The case escalated to the European Court on Human Rights (Alekseenko, 2022). Mr. Vavřička alleged that the compulsory vaccination law violates Article 8, the right to respect private and family life, and Article 9, the right to freedom of thought, conscience, and religion of the European Convention on Human Rights (ECHR) (n.d.). The court rejected the argument that compulsory vaccination violates Articles 8 and 9 and ruled that the consequences of non-vaccination are adverse to the general public. The court referred to the Margin of Appreciation (MOA), a doctrine that the ECHR developed (Letsas, 2006:705) for matters concerning healthcare policy. The doctrine states that national governmental authorities

are best placed to assess priorities and determine the available resources according to such needs within their jurisdictions (Alekseenko 2022:82). Therefore, it is up to individual states to determine a vaccine mandate. Legal systems vary across jurisdictions, particularly in their approaches to vaccine exemptions. The ECHR applied the proportionality test and provided a wide MOA to member states on COVID-19 vaccination, affirming that mandatory vaccination against COVID-19 serves a legitimate public health interest (Alekseenko, 2022).

King et al. (2022:221) argue that human rights law considers values beyond just liberty, with the potential for restrictions on liberty to be justified in order to prevent harm to others (Cameron et al. 2021:553). The ECHR acknowledges the right to bodily integrity as a "limited right" that can be restricted "in order to protect health" (King et al.2022:221). Since 1948, international law has recognised economic and social rights related to health, employment, and education. These are most comprehensively outlined in the United Nations International Covenant on Economic, Social and Cultural Rights (ICESCR), which is supported by 171 states worldwide including those in Europe and the UK (King et al. 2022:221). Similarly, the Global Vaccine Action Plan (GVAP), endorsed by 194 member states of the World Health Assembly (WHA) in May 2012 (World Health Organization, n.d. g) provides immunisation as an essential element of the human right to health and a responsibility for individuals, communities, and governments. Article 12(c) of the ICESCR recognises the obligation to address epidemic diseases as part of the right to health (King et al. 2022:221). The available literature suggests that vaccination mandates are supported at the international level. However, in the Vavřička case, the ECHR finding indicates that it is at the discretion of each state to determine how such mandates be implemented, and this must meet the standards of the proportionality test.

2.5 The history of vaccination in South Africa

During the 18th century, three smallpox epidemics occurred at the Cape of Good Hope in South Africa, around 1713, 1755, and 1767, respectively (Viljoen and Orago, 2014). The Public Health Act of 1883 was enacted to control the smallpox epidemic, notably the outbreak in Kimberley during this period. Subsequently, in 1893 an outbreak occurred in Johannesburg, and a Central Smallpox Committee was formulated. Thereafter the Volksraad made smallpox vaccination

compulsory in the Transvaal Republic. The last case of smallpox was reported between 1971 and 1972 (Gear, 1986).

In 1973, the Bacillus Calmette-Guérin (BCG) vaccination (for tuberculosis) for newborns and polio vaccinations were made compulsory (Fourie, 1987). However, in 1987, these laws were revoked (Kling, 2009). Regulation Notice 2438, Section 13 of 1987 stated that in cases of an emergency, the Director General of Health had the authority to recognise an area and delegate individuals to conduct a vaccination campaign, as well as isolate those who were not vaccinated. In addition, people who travelled into South Africa from high-risk areas were compelled to have been vaccinated against yellow fever (Kling, 2009), a disease that is transmitted to humans by the bites of infected mosquitoes (World Health Organization, n.d. f). According to the Admission Policy for Ordinary Public Schools contemplated in Section 12(3)(a)(i) of the South African Schools Act of 1996 , childhood immunisation is a requirement when a parent applies for admission into a South African school to prove that the child has been vaccinated against common diseases like polio, measles, diphtheria, tetanus, and hepatitis B, and tuberculosis, (Republic of South Africa, 1996).

2.6 The history of anti-vaccine movements and vaccine hesitancy

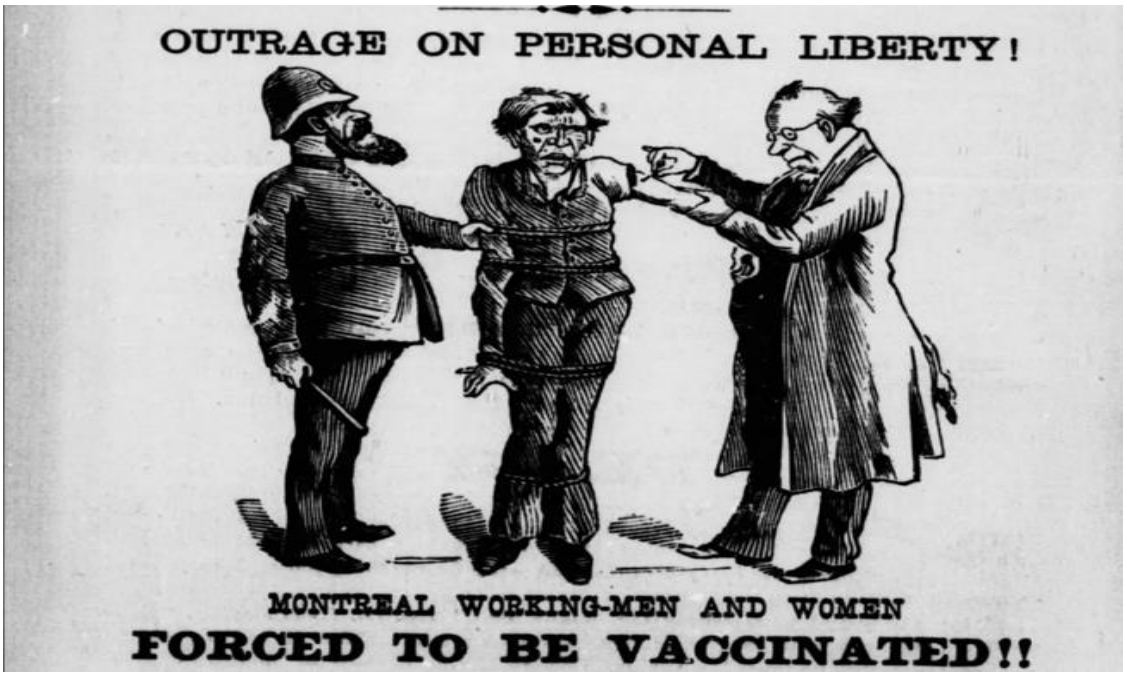


Figure 2: Forced vaccination as an outrage on personal liberty (Source: Larsson, 2020)

Wolfe and Sharp (2002:430) point out that opposition to mandatory vaccination laws in the UK emerged shortly after the implementation of the Vaccination Act of 1853. Infants were required to be vaccinated against smallpox within their first three months of life, and non-compliant parents faced fines or imprisonment. Additionally, during this time, the Anti-Vaccination League in London (AVLL) was formed (Wolfe and Sharp, 2002:430). The AVLL expressed concerns regarding infringement on civil liberties, apprehensions about the vaccine's risk potentially outweighing its benefits, and raised questions about why some vaccinated individuals still fell ill (Berman, 2021).

Other organisations opposing vaccination started to appear afterwards. The establishment of the Anti-Vaccination League of Canada (AVLC) in 1990 was influenced by a similar league in the UK (Arnup, 1992:169). By 1906, the AVLC successfully persuaded the Toronto Department of Health to eliminate the requirement for vaccinations in schools (Berman, 2021). Those against vaccines developed their argument based on social status and individual freedom. Resistance to smallpox vaccination, whether displayed through public unrest or presented in courtrooms, indicated unease regarding a shift in control over personal health choices (Berman, 2021:491).

In 1946, Canada reported the last endemic case of smallpox, but although smallpox had been eradicated (McIntyre and Houston, 1999), the anti-vaccine sentiment remained. Recent surveys have shown that nearly a third of Canadians were unwilling to take a vaccine against SARS-CoV-2 (COVID-19) (Berman, 2021:491). Many people see public health policies as another expression of society’s power imbalances (Berman, 2021:491). For many, making a personal health choice is a process, which takes place over time, within the context of the patient-physician relationship (Berman, 2021:491).

2.6.1 Public opinions about vaccine mandates

Studies have been conducted on the general public’s opinions to determine whether they support or oppose mandatory vaccination. According to WHO (2022:1) “contemporary forms of mandatory vaccination make vaccination a condition of, for example, admission to employment settings, admission into educational institutions, or participating in certain activities.” In the USA,

a study conducted by Guo et al. (2022) analysed public opinions expressed on Twitter, a social media platform, about the COVID-19 vaccine mandate in the USA; from the 14th to the 31st of December 2021, a total of 1,466,879 tweets were retrieved from the Twitter COVID-19 Stream API. Of them, 41,421 were USA-based tweets (Guo et al, 2022). The results revealed robust opposition toward COVID-19 vaccine mandates. Approximately 70% of the public expressed negative opinions that questioned the political motive behind vaccine mandates, the infringement of personal liberties, and ineffectiveness in preventing infection (Guo et al. 2022:508-509).

In South African, a study was conducted by Eyal et al. (2023:1) using data from the second COVID-19 Vaccine Survey (CVACS), included 3608 South Africans who reported having not vaccinated (Eyal et al, 2023). Evidence from the data revealed that 25% of the adults supported vaccine mandates, while 48% thought that mandates would work well in vaccine uptake (Eyal et al. 2023:8). However, 54% mentioned individual rights as their main reason for mandate opposition (Eyal et al., 2023).

2.7 South Africa's response to the Coronavirus pandemic

The Coronavirus disease of 2019 (COVID-19) is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Sharma et al. 2020:1). The virus was reported to have been first identified in China in 2019 and then spread worldwide (Sinanovic et al., 2020). As of the 18th of October 2023, there had been 771,407,825 confirmed cases of COVID-19, including 6,972,152 deaths that have occurred globally (World Health Organization).

In response to the pandemic, South Africa took a rapid and seemingly effective approach to the global crisis in dealing with the current COVID-19 pandemic. On the 15th of March 2020, the government declared a National State of Disaster under the Disaster Management Act 57 of 2002 (Republic of South Africa, 2002). This empowered the government to implement a "health-sector response" and a "risk-adjusted" strategy for economic activity, to deal with the national threat posed to the health and well-being of every person in the country.

The South African public health response included developing, accessing, and rolling out an effective vaccine to mitigate and reduce the spread of COVID-19. According to the Organisation

for Economic Co-operation and Development (OECD), this is described in the health-sector response as a key priority for herd immunity (Organisation for Economic Co-operation and Development, n.d.). Herd immunity or population immunity entails vaccinating an unimmunised segment of the population to gain immunity against COVID-19 (John and Samuel, 2000). Accordingly, the National Department of Health (DoH), together with several key stakeholders, undertook the establishment of a COVID-19 Vaccine Strategy, which includes five key outcomes: i) provide sufficient supply and safe access to vaccines to achieve herd immunity to COVID-19; ii) safeguard vulnerable populations from contracting the virus; iii) social and economic recovery from the impact of the pandemic; iv) strengthen South Africa's preparedness for future disease outbreaks; and v) improve communication strategies to address vaccine hesitancy and increase vaccine confidence (South African Government).

In this regard, Nyikana and Bama (2023:3) state that on the 1st of May 2020, the South African government implemented a COVID-19 risk-adjusted strategy for economic activity and proposed five levels of public movement restrictions:

> *Level 5 – High virus spread and/or low health system readiness which required full lockdown.*
>
> *Level 4 – Moderate to high virus spread with low to moderate health system readiness with high restrictions.*
>
> *Level 3 – Moderate virus spread, with moderate health system readiness, required moderate restrictions.*
>
> *Level 2 – Moderate virus spread with high health system readiness, required moderate to low restrictions.*
>
> *Level 1 – Low virus spread with high health system readiness which required low restrictions.*

Furthermore, the South African government also took a three-phase approach to rolling out the COVID-19 vaccination programme. The most vulnerable of the country's population (Government Communication and Information Systems [GCIS], 2021) were the first to be vaccinated. The vaccination target was set for 67% of the population by the end of 2021 to achieve the goal of herd immunity (Reddy et al., 2021). Phase 1 of the country's strategy targeted frontline workers

(GCIS,2021), phase 2 targeted essential workers, people in congregate settings, persons over 60, and persons over 18 years old with comorbidities (GCIS, 2021). Lastly, phase 3 targeted persons older than 18, focusing on 22,500,000 of the country's population (GCIS, 2021). The National State of Disaster was lifted on the 15th of April 2022, followed by the implementation of transitional measures, including the development of new regulations by the DoH for preventative measures against COVID-19 (GCIS, 2021).

2.7.1 Anti-vaccination movements in South Africa

A study conducted by between 2011 and 2013 found that South Africans were establishing web pages and blogs for local anti-vaccination advocacy. In this study, the statistics indicated a variety of online platforms being used. The first 700 web pages per search were analysed, these included blogs (40.3%), articles (55.2%), and e-shops (4.5%). The authors of these materials included lay individuals (63.5%), complementary/alternative medicine practitioners (23.1%), medical professionals practicing CAM (7.7%), as well as those practicing only allopathic medicine (5.8%). They assert that vaccines are ineffective, driven by profit, and unsafe (Burnett et al., 2015).

Concerning the COVID-19 pandemic, an article from News24 covered one anti-vaccine movement that occurred. A protest action for the freedom of choice against mandatory vaccination, which occurred at Groote Schuur Hospital in Cape Town on August 21, 2021. Protesters appealed to the South African government to advocate for individuals who choose not to receive vaccinations. Concerns expressed by the anti-vaccination protestors focused on their right to autonomy and decision-making regarding their own bodies, distrust in the South African government, and skepticism towards the swift development of COVID-19 vaccines (Makhafola, 2021). It appears that South Africa has a paucity of research on the opposition to vaccination.

2.8 The South African legal framework

According to the South Africa President, Mr. Cyril Ramaphosa (Felix, n.d.):

> *"No one should be forced to be vaccinated. Instead, we need to use the available scientific evidence to encourage, repeat encourage, people to be vaccinated to protect themselves, but also to protect people around them."*

The sentiments shared by the South African president concur with the position of the WHO (2022), as the WHO does not presently support mandatory vaccination and recommends that countries should focus their efforts on vaccination information dissemination and making vaccines accessible. According to Munir and Munir (2023) in crisis situations, such as a pandemic which is characterised by threat, uncertainty, and time pressure, the government ideally would prefer to have control and discretion to address these factors. However, in countries with sturdy civil liberties, governments have been faced with greater challenges because of the great sense of individualism and freedoms derived from citizens' civil liberties (Munir and Munir, 2023). This plays a role in the way governments are able to respond to pandemics. Instituting vaccine mandates on a large scale becomes a challenge for the government because vaccine mandate directives conflict with constitutional protections which result in public scrutiny, hence the absence of universal vaccine mandates, and a shift towards the MOA (Munir and Munir, 2023). This has encouraged debate on whether the South African government could impose a vaccination mandate. Given the centrality of this issue, it is important to examine the SA Constitution.

2.9 *Constitution of the Republic of South Africa*, 1996

2.9.1 Chapter 2: The Bill of Rights

Entrenched in Chapter 2 of the South African Constitution is the Bill of Rights (BOR), known as the cornerstone of democracy in South Africa. Sections 10 and 12 are pertinent to rights pertaining to bodily integrity and medical interventions, such as vaccination (Republic of South Africa, 1996):

> Section 10: *"Everyone has inherent dignity and the right to have their dignity respected and protected."*

The human right to dignity is a key value in the South African Constitution and relies on the realisation of all other socioeconomic rights (Van den Berg, n.d.). Upholding this right acknowledges the inherent worth of individuals, entitling them to be treated with respect and concern. The South African Constitutional Court has emphasised that the rights to life and human dignity are among the most important of all human rights. The right to human dignity forms the basis for many other rights in the BOR (Van den Berg, n.d.):

> Section 12: *"Everyone has the right to freedom and security of the person"…,* (2)(b) *"security in and control over their body" … (2)(c) "not to be subjected to medical or scientific experiments without their informed consent."*

These clauses imply that no person shall be denied the right enshrined in Sections 10 and 12 of the BOR and every person has the human right to make decisions on medical interventions. This implies that an individual has bodily integrity over their body and the choice to reject or accept medical interventions such as the COVID-19 vaccine (Calitz, 2021). However, Section 7(1) of the BOR establishes that, in extraordinary circumstances, temporary intermission of particular human rights may be essential for the common good (Bohler-Muller et al. 2021:3). Moodley (2022:2) points out that Section 36 of the BOR enshrines the limitation of rights when this is 'deemed reasonable and justifiable in an open and democratic society':

> Section 36:*"The rights in the BOR may be limited only in terms of law of general application to the extent that the limitation is reasonable and justifiable in an open and democratic society based on human dignity, equality, and freedom, taking into account all relevant factors, including … (a) the nature of the right; (b) the importance of the purpose of the limitation; (c) the nature and extent of the limitation; (d) the relation between the limitation and its purpose; and (e) less restrictive means to achieve the purpose. (2) Except as provided in subsection (1) or in any other provision of the Constitution, no law may limit any right entrenched in the BOR."*

The limitation of rights implies that interference with any of these rights can be justified based on harm to others or for the protection of health. This is applied in the case of *S v Makwanyane and Another* (CCT3/94) [1995] ZACC 3; 1995 (6) BCLR 665; 1995 (3) SA 391; [1996] 2 CHRLD 164; 1995 (2) SACR 1 (6 June 1995), 1995, a landmark case in South African history because it was the first case to apply the revised Constitution of 1995. The Constitutional Court in a unanimous judgment ruled the death penalty unconstitutional because, according to Section 36 of the BOR, there were less restrictive means to achieve a purpose. A lifelong sentence was less restrictive than the death penalty. The court held that a right should not be taken away under the pretext of a limitation and as far as possible, less restricted means applied. Section 12 does not envisage an absolute limitation of the right of freedom and security of person.

2.9.2 *National Health Act 61 of 2003*

According to the *National Health Act 61 of 2003:*

> *"Every health care provider must inform a user of (d) the user's right to refuse health services and explain the implications, risks, obligations of such refusal."*

This section means that it is the responsibility of a health professional to inform a person about available medical treatments, the risks and benefits of such treatments, and the cost implications of such treatments before an individual is given any medical treatment. This is to promote informed decision-making by individuals which is essential to the decision to vaccinate (Stevenson, 2019).

In *Castell v De Greef* 1994 (4) SA 408 (C), 1993, it was found that people with decisional capacity can decline life-sustaining medical treatment. According to Jordaan (2011:35) this stems from an individual's fundamental right to self-determination, which includes bodily integrity. This aligns with the doctrine of informed consent which recognizes the patient's autonomy to make decisions whether they accept or refuse medical treatment (Jordaan, 2011).

However, in the case of *Minister of Health of the Province of the Western Cape v Goliath and Others* (13741/07) [2008] ZAWCHC 41; 2009 (2) SA 248 (C) (28 July 2008), 2008, (herein referred to as the Minister of Health case) Section 7(1)(d) of the National Health Act (NHA) was applied:

> *"Failure to treat the user, or group of people which includes the user will result in a serious risk to public health…".*

This section implies that health treatment may be administered without the consent of a patient. An example of the application of this legislature occurred during an extremely drug-resistant tuberculosis (XDR-TB) epidemic (Couch et al. 2023:3). The Minister of Health sought an order to compel two surviving respondent of four diagnosed to be detained. The respondents argued that such detention would violate their rights in terms of freedom and security of the person and to bodily integrity, according to S12 of the BOR. (Couch et al. 2023:3). The court ruled that the detention and treatment of the respondents, although a breach of Section 12, was necessary and

mandated by Section 7(1)(d) of the National Health Act in the interest of public protection. This finding is aligned with Section 36 of the Constitution as it limits an individual's rights in the best interest of society.

With regard to the need for vaccination, while it may be accurate that herd immunity is achieved through vaccinating a large percentage of the world's population, there is no guarantee or certainty about the efficiency of the COVID-19 vaccine (Calitz, 2021). These concerns include, specifically, the vaccine's long-term effects on the population, whether social solidarity supersedes individual or patient autonomy, and the evidential fact that one can still contract the virus even after being vaccinated. Thus, it seems unreasonable, based on the WHO's (2022) ethical considerations, to expect a utilitarian approach from the world's population, with those who wholeheartedly refuse to be vaccinated sacrificing their constitutional rights to accommodate those who passionately believe in mandatory vaccination. This position may be justified in arguing that vaccination must be voluntary and without undue influence or coercion. Furthermore, it is evident in the South African Constitution and the opening statement made by the South African President, Mr. Cyril Ramaphosa, that the government would lean toward support of this position. Undoubtedly, as pointed out by Calitz (2021), the COVID-19 virus is contagious and lethal, but there is not enough justification to support mandatory vaccination presently in South Africa.

2.9.3 *Occupational Health and Safety Act 85 of 1993*

2.9.3.1 The amended COVID-19 consolidated direction

The purpose of the Occupational Health and Safety Act 85 of 1993 is to ensure that the health and safety of people who are at work are not compromised. Specifically, Section 8 sets out a legal obligation of employers to ensure this right as it pertains to the health and safety of employees:

> Section 8: *"Every employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of his employees."*

Although vaccination was not declared mandatory nationwide, the Department of Employment and Labour published an amended COVID-19 consolidated direction on Occupational Health and Safety measures in certain workplaces (COVID-19 OHS direction) in June 2021 that states that an employer will be held liable if a court establishes that the workplace is the root cause of a person

contracting the COVID-19 virus. It also outlined a framework for employers to use at their discretion in the implementation of mandatory COVID-19 vaccination in the workplace:

> **Step 1: Conduct a risk assessment:** This will establish what protective measures need to be implemented in the workplace as workers return to work after the COVID-19 lockdown. The operational requirements of the workplace should also be considered, such as the nature of services offered and the degree of exposure to people. Employees should be categorised according to their risk of transmission by the nature of their occupation or by who may be more susceptible to contracting the virus by virtue of their age or comorbidity.
>
> **Step 2: Establish the vaccination policy:** Should the risk assessment conclude that certain or all employees must be vaccinated, a vaccination policy must be prepared. Employees should be categorised according to those who are required to be vaccinated to continue working for the employer and as advised by the risk assessment.
>
> **Step 3: Advise the affected employees of the vaccination policy:** Employees must be advised of the policy. They must also be advised of their rights to refuse the vaccine on constitutional or medical grounds, the right to consult with a worker representative, and that those who refuse vaccination on medical grounds will be referred to further medical evaluation.

Where an employee refuses to vaccinate based on constitutional or medical grounds, the employer must, as far as reasonably possible, try to accommodate that employee. However, if reasonable accommodation is not possible, alternatives short of dismissal must be considered, such as testing regularly for COVID-19 and providing proof of the outcome. The standard fair procedures must occur if an employer considers dismissing an employee based on vaccine refusal. However, based on the evidence that is available, it seems fair to suggest that, in implementing a vaccination policy, there is no one-size-fits-all policy (Masuku, 2022). This is further suggested in the challenges that are experienced in the workplace setting discussed in the subsection that follows.

2.9.4 South African challenges to vaccination policies in the workplace setting

In 2022, newspaper articles were written about employee dismissals that had been carried out by conglomerate banks in South Africa. For example, Standard Bank dismissed approximately 40 employees for non-compliance with the bank's mandatory COVID-19 workplace policy. Consequently, South African Society of Bank Officials (SASBO), the financial services sector trade union, intended to take legal action against the bank (Theunissen, 2022). As of the 11th of July 2022, the Bank decided to rehire dismissed staff. Similarly, Old Mutual Bank dismissed an estimated 89 employees without intention to reinstate dismissed workers (Theunissen, 2022).

In the case of *Mulderij v Goldrush Group* (GAJB24054-21) [2022] ZACCMA 1, Ms. Mulderij was employed as a business-related and training officer by the Goldrush Group. Her occupation required her to engage with external clients and internal colleagues. Her employer had implemented a COVID-19 mandatory vaccination policy in the workplace, which required her to vaccinate against COVID-19. Ms. Mulderij refused to comply with the COVID-19 vaccination requirement and was dismissed.

According to the Goldrush Group, not vaccinating incapacitated Ms. Mulderij from carrying out her occupational duties, and her employer could not accommodate her reasonably. For the purposes of this discussion, the focus will be only to highlight two important reasons Ms. Mulderij did not want to be vaccinated. Firstly, she pleaded that her reasons for not vaccinating were based on her constitutional right to Section 12 of the BOR, freedom and security of the person, which supports that every person has the right to make decisions on health and medical interventions, and the right to accept or reject the COVID-19 vaccine. Secondly, Ms Mulderij felt extreme social pressure and emotional discomfort when faced with the choice of earning a livelihood or getting vaccinated.

Ms Mulderij requested a vaccine exemption based on constitutional grounds for her employer to accommodate her reasonably by providing her with an alternative position at Goldrush. It is worth noting that, at the time that this case was heard (namely, in 2021), it was not yet established whether the COVID-19 vaccine could lead to death or not, and there was not 100% proof that the vaccine was an effective medical intervention. The CCMA ruled in favour of her being

incapacitated to carry out her occupational duties and upheld her dismissal. According to the CCMA Commissioner:

> *"I can only conclude that the Applicant* [Ms. Mulderij] *is permanently incapacitated on the basis of her decision to not getting vaccinated and* [by] *implication refusing to participate in the creation of a safe working environment*."

In response to this case, the National Employers' Associations of South Africa (NEASA, 2022) argued that the COVID-19 OHS direction published on the 5th of April 2022 includes the term 'incapacity' to mean ill health or injury of an employee. This implies that an employee's ill health or injury makes it impossible for an employee to perform his or her occupational duties. For Ms Mulderij to have been incapacitated, it must have been impossible for her to perform her occupational duties. In this case, what is preventing her from performing her occupational duties is not her incapacity. Rather it is the mandatory COVID-19 policy implemented by the Goldrush Group that is preventing her from performing her occupational duties (NEASA, 2022). With reference to the term 'incapacity' according to the NEASA, this in no way speaks to her capacity as an employee of Goldrush to perform her duties, which she had done without being vaccinated since the inception of the COVID-19 pandemic. NEASA (2022) further argued that incapacity is normally a no-fault dismissal. This means that no fault is attributed to the employee for dismissal. However, in the ruling of the CCMA Commissioner, the fault is ascribed to Ms. Mulderij as the employee (NEASA, 2022). The available evidence seems to suggest that the Commissioner misinterpreted the term 'incapacity' in the provisions of the OHS directive, conflating incapacity and misconduct, and incorrectly upheld the dismissal of Ms. Mulderij for incapacity, exceeding his/ her judicial powers as Commissioner (NEASA, 2022).

In a similar case, *Gideon J Kok v Ndaka Security and Services* FSWK2448-21 (2022), (herein referred to as the Gideon case), Mr Kok was employed by Ndaka Security and Services. The company's primary client, Sasol Limited, gave a directive which instructed the company to have a 100% vaccination rate on its premises. Mr Kok was instructed to vaccinate or submit a negative COVID-19 test weekly. Mr. Kok submitted weekly COVID-19 tests but could no longer afford to because testing was costly. Consequently, his access card to his workplace was blocked, denying his access to his place of work. Mr. Kok's refusal to vaccinate was based on three grounds: firstly,

his constitutional right to Section 12 of the BOR, freedom and security of the person; secondly, Section 15, freedom of religion, belief, and opinion, as he is a Christian; and thirdly, that he had recovered from COVID-19 in the past when he stopped taking medication and instead relied on his faith and his body's natural immunity. The CCMA Commissioner ruled that the suspension of Mr. Kok was substantially fair providing the following reasons:

- Public interest outweighs the right to bodily and psychological integrity.
- Vaccination is a proven medical intervention limiting illness and transmission.
- The vaccination mandate aims to establish a safe working environment.
- Mr Kok shares an open office with colleagues.
- Mr Kok's work requires visits to sites and interactions with personnel.
- Alternatives were considered but found impossible.
- The employer complied with COVID-19 OHS direction.
- A mandatory vaccination policy is a reasonable practical step for employers to take in terms of the OHS Act.

In the case of *Dale Dreyden v Duncan Korabie Attorneys* WECT13114-21, Mr. Dreyden was employed by the law firm, Duncan Korabie Attorneys. The firm's reasoning for implementing the mandatory COVID-19 policy was based on:

- The nature of its business, it had become impractical for employees to work from home full-time.
- The Managing Director (MD) had Addison's Disease, placing him at risk of severe illness should he contract COVID-19.
- There was no space at the firm to have isolated work areas for unvaccinated employees.

Mr. Dreyden had notified his employer of his decision not to vaccinate; no justification was provided to his employer, and he was dismissed. The CCMA Commissioner concluded that Mr. Dreyden had not provided substantial reasoning concerning his decision not to vaccinate, given that the MD had justified the need for the mandatory COVID-19 vaccination workplace policy, highlighting his comorbidity. Mr. Dreyden's dismissal was found to be sustainably fair based on

the grounds that not vaccinating incapacitated him from carrying out his occupational duties. However, his dismissal was found to be procedurally unfair because his employer failed to:

- Inform Mr Dreyden of his right to refuse vaccination on constitutional grounds.
- Ask him why he refuses to vaccinate, as well as failing to counsel him on the issue.
- Engage him on the issue of reasonable accommodation, as an alternative to dismissal.
- Dismissed him via a WhatsApp message, which constituted an insufficient level of consultation on the issue.

According to the COVID-19 OHS directive, employees may apply for exemptions based on constitutional grounds. However, in the caselaw discussed above, the evidence suggests that an employee's right to apply for exemptions based on constitutional grounds is being revoked and that it is a case of compliance 'or else' as the evidence shows that 'or else' usually means dismissal. For the sake of the discussion, I would like to argue that a 'one-size-fits-all' policy may not be a suitable option and this premise has been supported by Haug et al. (2020).

2.10 WHO COVID-19 ethical considerations policy brief

In May 2022, the WHO published a policy brief that outlines ethical considerations for governments to follow when considering mandating COVID-19 vaccination (WHO, 2022). The WHO does not support mandatory vaccination policies, recommending rather that governments should focus their attention on educating their nations on vaccination and making vaccines easily accessible to the public. According to the WHO (2022), vaccine mandates are not compulsory, as people are not forced into vaccination. Compulsory vaccination means that, in the event that an individual refuses vaccination, they will be forced to do so (Saunders, 2022:220). The ethical considerations are as follows:

1. **Necessity and proportionality**

   The WHO (2022:2) explains that a COVID-19 vaccine mandate should be considered if there is necessity and proportionality for a mandate, and that it corresponds with a vital societal or institutional objective. During the COVID-19 pandemic, a vital societal or institutional goal was to achieve herd immunity (WHO, 2022).

2. **Sufficient evidence of COVID-19 vaccine safety**

The WHO Ethical Considerations policy (WHO, 2022:3) also explains that there must be sufficient proof that the COVID-19 vaccine is sufficiently safe for the populations for whom it is intended to be mandatory. If there is not sufficient evidence that the COVID-19 vaccine is safe, this ethical consideration cannot apply (WHO, 2022).

3. **Sufficient evidence of vaccine efficacy and effectiveness**

   The WHO (2022:3) maintains that there must be evidence that the COVID-19 vaccine is an effective means to achieving the societal or institutional objective, for example, herd immunity. If this cannot be achieved, the mandate cannot apply. This ethical consideration can also be found under international human rights law of reasonable means.

4. **Justice in access to and availability of the COVID-19 vaccine**

   This ethical consideration implies that there must be sufficient supply for the society or institution for whom the COVID-19 mandate would apply (WHO, 2022:3). The COVID-19 vaccine should be easily accessible and of no cost to the population to whom it applies (WHO, 2022).

5. **Public trust must be obtained within society or institution**

   According to the WHO (2022:3-4) policy, there is a duty on policymakers to evaluate the effect that a mandatory COVID-19 vaccine policy would have on public trust and confidence in the scientific community. A policy that undermines public trust and excessively limits bodily integrity could impact vaccine uptake and adherence to other important public health measures, which could result in long-term public health effects (WHO, 2022).

6. **Ethical processes of decision-making**

   The WHO (2022:4) points out that there is a duty of ethical decision-making and transparency on policymakers. Therefore, if a government or institution is considering such a policy, it would need to follow the listed ethical processes and make them known to the population for whom the mandate applies, as well as the consequences for non-compliance (WHO, 2022). This ethical consideration can also be found under the OHS directive for conducting a risk assessment in the workplace.

In addition, the WHO (2022:6) points out that governments should first encourage voluntary COVID-19 vaccination before implementing a mandatory policy and should refrain from intrusive

measures. If there are reasonable grounds that the voluntary option is not a sufficient means to achieve societal or institutional objectives, then a mandatory COVID-19 vaccine should be considered.

2.11 The four bioethical principles of Beauchamp and Childress

Bioethical principles are significant in medical ethics literature. According to Dhai and McQuoid-Mason (2020:17) bioethical principles can be used in decision-making to solve actual or anticipated conflicts. Beauchamp and Childress are the founders of the four bioethical principles, namely – autonomy, beneficence, non-maleficence, and justice. Each principle is binding unless it clashes with an equal or greater obligation, creating a moral dilemma (Dhai and McQuoid-Mason, 2020). Bioethical principles can help establish whether mandatory vaccination can be ethically justified. A discussion of each principle follows:

Principal one: Bodily autonomy

According to Nienaber and Bailey (2016:73) the bioethical principle of 'autonomy' acknowledges an individual's right to hold views and make choices influenced by their beliefs. This bioethical principle corresponds with Article 1 of the Universal Declaration of Human Rights (UDHR), which entrenches that all human beings are born free and are equal in human dignity and rights (United Nations, 1948). This can also be related to Section 10 of the BOR, which enshrines the right to human dignity. Autonomy holds both negative and positive obligations (Nienaber and Bailey, 2016). These are outlined below:

> The negative obligation: According to Dhai and McQuoid-Mason (2020:17-18), an individual has the right to make decisions concerning his or her own body without undue interference from external factors. Based on this premise, vaccination is a choice that is made solely by the individual, who is free from coercion and undue influence.
>
> The positive obligation: An individual's autonomous decision-making process must be facilitated with respect (Dhai and McQuoid-Mason, 2020).

Principle two: Non-maleficence

The ethical principle of non-maleficence refers to the deliberate intention not to cause 'harm' to others. Harm refers to an injury, injustice, violation, or wrongdoing to another person. This

principle requires the needless risk of harm to be avoided; when risk is inevitable, it should be minimised as far as reasonably possible (Dhai and McQuoid-Mason, 2020). The Vaccine Global Access Facility (COVAX), co-led by the Vaccine Alliance (Gavi), the Coalition for Epidemic Preparedness Innovations (CEPI), and the WHO, is responsible for the development, production, and safety of vaccines (Vaccine Alliance, 2022). According to the Universal Deceleration on Bioethics and Human Rights (UDBHR, 1948), a universal declaration established to promote high ethical standards worldwide, Article 4 stipulates the ethical responsibility of COVAX as it pertains to COVID-19 vaccines:

> *"In applying and advancing scientific knowledge, medical practice, and associated technologies, direct and indirect benefits to patients, research participants, and other affected individuals should be maximised and any possible harm to such individuals should be minimized."*

The ethical dilemma under this principle is positioned in the ability to balance doing no harm and bringing a benefit to others (Benoit and Mauldin, 2021). The WHO declared the Comirnaty COVID-19 mRNA vaccine for emergency use (WHO, 2023a). However, Benoit and Mauldin (2021) argue that, for as long as the adverse effects of the vaccine are unknown, the bioethical principle of non-maleficence is not fully stratified. Myocarditis and pericarditis, conditions associated with heart inflammation were reported by 8,000 cases from 46 studies by researchers in Canada and are highest among young males (New study updates evidence on rare heart condition after Covid vaccination, n.d.). The worldwide administration of the vaccine could result in the virus mutating under selection pressure and produce drug resistance because the virus has different variants (Peng et al., 2021).

Under this principle, some authors argue that vaccination is a social responsibility (Córdova-Lepe and Vogt-Geisse, 2022). This implies that within an ethical context, an individual should vaccinate in the best interest of society (Sergi and Leung, 2021). However, Cheng (2022:4) argues that people who vaccinate can still be classified as vaccine-hesitant because they share similar fears as those who refuse to vaccinate. By adhering to preventative measures, they are adhering to their civic duty, which is to protect the greater public (Cheng, 2022). A mandatory vaccination policy disregards an individual's fears and forces an individual to sacrifice their own personal safety, and

physical and psychological dimensions, such that is similar to collective bullying; obligating an individual to vaccinate under the disguise of civic duty is moral bullying (Cheng, 2022:3). Mandatory vaccination is a misuse of governmental power and consequently jeopardises and exacerbates conflicts between public and individual healthcare. According to the UDBHR, respect must be afforded in terms of the right to human dignity, equality and fundamental freedoms. The interests and wellbeing of the individual should take precedence over the interest of science or society (United Nations, 1948).

Principle three: Beneficence

The ethical principle of beneficence implies doing good for others and promoting their interest and well-being. This principle not only refers to the omittance of harmful acts but also requires one to act positively to assist others (Dhai and McQuoid-Mason, 2020). COVID-19 vaccines have been widely recognised as an intervention for achieving public health success against the COVID-19 pandemic (Ahmed et al., 2021). However, Benoit and Mauldin (2021) argue that the COVID-19 vaccine does not ensure 100% effectiveness, as studies have illustrated just over 50–95 % effectiveness. According to the National Institute for Communicable Diseases (NICD), studies have shown that people who are vaccinated against COVID-19 are still at risk of both infection and re-infection (National Institute for Communicable Diseases, n.d.). Furthermore, people who were vaccinated still had to comply with non-pharmaceutical preventive interventions such as face masks, physical distancing, and hand sanitising (Katoto et al. 2022:2).

Under this principle, the prevention problem raises ethical concerns about the inequitable distribution of the benefits and risks of harm resulting from the COVID-19 vaccine as a preventative measure focused on population-based interventions (Dawson, 2004). A vaccine drive aims to vaccinate a segment of the population to achieve the status of herd immunity (Cooper et al., 2021). Herd immunity confers ‘public good’ on all individuals and protects both the vaccinated and unvaccinated, as exposure to the disease is reduced. Therefore, the risk is carried by individuals who vaccinate but the rest of the population, including those who do not vaccinate, benefits from herd protection (Kling, 2009).

Principle four: Justice

Dhai and McQuoid-Mason (2020:18-19) argue that the bioethical principle of justice, within the context of COVID-19 vaccination, refers to distributive justice and the fair allocation of scarce resources. It determines whether the benefits and burdens are distributed fairly in society (Dhai and McQuoid-Mason, 2020).

Under this principle, the ethical dilemma raised is vaccine nationalism, which is described as the inequitable access and distribution of COVID-19 vaccines to low-income countries (Kunyenje et al., 2023). High-income countries failed to consider the realities experienced in African countries to ensure equitable access to vaccines and social variations (Wei et al., 2023). This was exacerbated by pharmaceutical companies that chose profit over public health (Vanderslott et al., 2021). South Africa is a member of the International Covenant on Economic, Social, and Cultural Rights (ICESCR), a treaty primarily established to promote the rights and welfare of people in low-income countries (Ssenyonjo, 2017). Vaccine nationalism contradicts the public's right to healthcare stipulated in the ICESCR (Riaz et al., 2021), and undermines the pledge taken by the committee on COVID-19 Vaccine Global Access (COVAX).

COVAX was established to ensure that all countries and territories have equitable access to COVID-19 vaccines (UNICEF, 2023b), and to ensure adherence to the principles of the Universal Declaration on Bioethics and Human Rights (UDBHR), a universal declaration established to promote high ethical standards worldwide (Wolinsky, 2006). According to Wolinsky (2006:3) the UDBHR ensures non-discrimination, solidarity and cooperation, social responsibility, respect for pluralism and health, transnational practices, and international cooperation. According to the fourth ethical consideration of the WHO (2022:3) policy brief, as a condition for implementing a mandate, vaccine supply should be sufficient and reliable. Therefore, within this context, a vaccine mandate cannot be ethically justified.

2.12 Conclusion

Based on significant historical developments, it seems that there is compelling evidence indicating a growing emphasis on individualism and for promotion of personal choice over bodily autonomy and individual rights. Over time, there has been a shift towards perceiving vaccination as an

individual choice rather than a government-imposed obligation. This chapter has discussed the existing literature relevant to the study's aims. Thus, human rights were discussed, international and national laws, and caselaw presented where relevant. Studies on public opinions about views on vaccine mandates were also presented. South Africa's response to the COVID-19 pandemic and the South African legal framework is examined. Literature on the national workplace policy was discussed and the relevant workplace caselaw showed how such policy applied in a South African context. The chapter concluded by discussing bioethical principles and the WHO vaccination mandatory ethical considerations policy. Chapter Three will describe the research methodology, and the methods used to collect and analyse primary data for the current study will be discussed.

Chapter Three
Research Methodology

3.1 Introduction

This chapter presents the methodology employed for this study. A qualitative research design and purposive sampling approach were employed. Primary data were collected in semi-structured, face-to-face or virtual interviews. The study took an informed approach, using human rights, bioethical principles, and COVID-19 vaccination workplace policies to develop the interview schedule and used the research aims to guide the interview questions. A brief account of the researcher's reflexivity to mitigate research biases is outlined. It also presents a discussion of the social constructionist framework as an analytical model to interpret and analyse the research data. This chapter also describes the ethical measures employed to ensure reliability, transferability, validity, and rigour throughout the study.

3.2 Qualitative design

The research design provides a comprehensive structure of the dissertation by providing a detailed illustrated breakdown of how the researcher plans to conduct the research from its inception to its completion (Asenahabi and Bostley, 2019). According to Jackson et al. (2007), research design is important because it formulates a structured research plan that demonstrates how all the sections of the study work in synergy to unpack the research aims (Jackson et al., 2007).

A qualitative approach was employed in this study. A qualitative research inquiry seeks to explore and understand a phenomenon; it is useful for exploring the "how" and "why" research questions (Cropley, 2023). It provides an in-depth understanding of the phenomena under study and the experiences of the participants within their different contexts (Cropley, 2023). For example, this study sought to explore these participants' perceptions of vaccination as a personal choice or as mandatory and what the reasons are for their perceptions. Attention is placed on understanding human beings' richly textured experiences and reflections about their individual lived experiences (Jackson et al. 2007:22). This is referred to as a humanistic interpretive approach due to the rich and detailed discussions that could be derived (Jackson et al., 2007).

3.3 Study methods

The purposive sampling employed in this qualitative research involved recruiting participants who are familiar with the research phenomenon (Palinkas et al., 2015). To ensure that the research questions were adequately answered, I selected staff from the various departments and provinces of the same institution who know about the research topic (Dudovskiy, 2022). Potential participants were recruited through my existing networks via a specific research institution. This research institution was chosen because I am familiar with the staff members, making it convenient to reach out and schedule meetings. Moreover, this institution comprises of a team of researchers with diverse educational backgrounds, contributing to a richer understanding of the participants' experiences and perspectives.

3.4 Recruitment of the participants

I began the recruitment process by carefully reviewing the memorandum of the institution, which contains detailed information on each researcher. As part of the inclusion criteria, participants needed to be a staff member at the institution and 18+ years old. All races, genders, religions, and backgrounds were considered for inclusion. The recruitment process included:

a. **Sending invitations by email:** Staff were recruited from three South African provinces. In the interest of protecting the institution and its staff, the name of the institution and the provinces will not be disclosed. An invitation to participate in the study was sent via email to staff. The study invitation (Appendix A) and the study information sheet (Appendix B) were attached to the email. Employees were requested to respond to the invitation within seven working days after receiving the email.

b. **Sorting through responses:** After the seven-day lapse, the various responses were noted. Some staff members accepted, some rejected the invitation, and some did not respond.

- For employees who accepted the invitation: An interview schedule was sent to them, requesting them to indicate their availability for an interview. There was a lot of back-and-forth communication to secure an interview.
- For employees who rejected the invite: An acknowledgment email was sent to thank them for their response.
- For employees who did not respond: A follow-up email was sent to them.

c. **Filling the gaps:** Additional emails were then sent to fill in the gaps of those who rejected or did not respond, inviting them to participate in the study. The same process was carried out until a total of 20 interviews had been confirmed.
d. **Rescheduling of interviews:** None of the staff who confirmed their availability for an interview cancelled. There was, however, some rescheduling of interviews due to other commitments.

A total of 49 staff were sent an email invitation to take part in the research. Of this, 29 staff opted not to participate in the study. Some staff explicitly declined participation because they had other deadlines and could not allocate the time. A few staff declined but recommended other colleagues, while others remained unresponsive. The reluctance to participate may have been influenced by the sensitive nature of the topic, considering the impact of the COVID-19 pandemic on each person and its potential to evoke emotional responses. Additionally, participating in the study may have conflicted with other work commitments. Lastly, given the institution's extensive research focus on COVID-19, interest in participating may have declined due to numerous prior studies on COVID-19. In the end, 20 participants were recruited, and the literature suggests that a sample size of this magnitude is sufficient to gather meaningful data in qualitative research (Baker & Edwards, 2012).

3.5 Profile of the study participants

The 20 participants included 15 males, and 5 females. Majority (n=17) (both male and female) were researchers with varying degrees of experience, qualifications, and research interests, and 3 were non-researchers with varying degrees of experience and qualifications. Invitations were sent to staff based on their expertise, without consideration of their gender. Coincidentally, more men responded than women. It would have been valuable to gather additional perspectives from female staff, however interviewing staff from various provinces and disciplines offered numerous benefits. It helped in diversifying perspectives about vaccination and COVID-19 and contributes to a comprehensive understanding of human behavior and societal dynamics while promoting inclusivity. It provided insight into how the different offices across the three provinces responded to and implemented the COVID-19 vaccine mandate. It also provided insights into vaccination

attitudes among staff members across various locations, ensuring that diverse perspectives from the institution were included in the study as much as possible.

Table 1: Profile of the study participants

Province A – Office A	**Province A – Office B**	**Province B**	**Province C**
Participant 1 Senior Researcher – Political Science (PS)	Participant 6 Research Specialist – Social Science (SS)	Participant 11 Senior Researcher – Law (L)	Participant 16 Senior Researcher – Law (L)
Participant 2 Non-researcher - Management (M)	Participant 7 Research Specialist – Research Psychology (RP)	Participant 12 Senior Researcher – Political Science (PS)	Participant 17 Non-Researcher – Law (L)
Participant 3 Research Specialist – Policy and Development (PD)	Participant 8 Senior Researcher – Public Health (PH)	Participant 13 Senior Researcher – Politics (P)	Participant 18 Research Specialist – Policy and Development (PD)
Participant 4 Research Specialist – Political Science (PS)	Participant 9 Junior Researcher – Public Health (PH)	Participant 14 Research Specialist – Politics (P)	Participant 19 Non-Researcher – Law (L)
Participant 5 Research Specialist – Public Health (PH)	Participant 10 Research Specialist – Health Economics (HE)	Participant 15 Senior Researcher – Research Psychology (RP)	Participant 20 Research Specialist – Social Anthropology (SA)

3.6 Data collection

3.6.1 Semi-structured interviews

The most suitable method for generating data for the study were individual, semi-structured, in-depth, open-ended interviews. A semi-structured interview uses a schedule containing questions to guide the interviewer during the interview process (Harrell and Bradley, 2009). To achieve the research aims, an interview guide was used (Appendix D) – a list of questions that I asked the participants during the interview. However, in the interview, participants were invited to discuss issues related to vaccinations that were not on the schedule.

Before going into the field, it was necessary to test the interview guide to ensure that the appropriate data collection methods and questions were being asked to answer the research aims (Shakir and Rahman, 2022). A pilot interview to test the interview questions was conducted with one of the researchers at the institution used for the research. The pilot interview indicated that the interview schedule was too long; hence, I modified some of the questions and removed some that appeared unnecessary. The open-ended approach allowed me to probe during the interviews to ensure the study's aims were achieved. The interview schedule was developed from the research aims to ensure consistency with the research phenomenon explored.

The process of obtaining informed consent is described in detail later in this chapter. The interviews were 45–60 minutes long. Participants were given the option of meeting in-person or virtually. A total of 20 participants were interviewed, while 4 interviews were conducted in person, and 16 were conducted virtually through Microsoft Teams. Most of the participants opted for virtual interviews because they were based in a different province, making it inconvenient to conduct these interviews in person. I accommodated each participant's preferred interview method (in-person or virtually). Participants were not required to turn their cameras on during the interviews, but some chose to do so - this was welcomed without being specifically requested. All individual interviews were audio-recorded, and this allowed me to focus on engaging with the participants during the interview and to have accurate records of the interviews. I made field notes where necessary, particularly to elaborate on a specific issue or serve as a reminder regarding important aspects that I felt required further elaboration. Data saturation was reached when recurring themes emerged consistently in the sample. Further research is necessary to explore variations in how distinct participants perceive these themes.

3.7 Data analysis

Data analysis refers to reducing large amounts of collected data to make sense of them (Kawulich, 2004). The software programme Atlas.ti was found to be most effective for this study because it enables large data sections to be coded and analysed (Smit, 2002). The transcripts were used as primary data for the analysis. Primary data were the main sources of data for this study, which the

researcher collected directly from the participants, through engaging in research interviews (Hox and Boeije, 2005).

The transcripts were analysed using thematic analysis. Thematic analysis was most appropriate for this study because it assisted in making sense of the collected data and deducing meaning and commonalities from the responses and experiences found in the dataset. I used the step-by-step guide by (Braun and Clarke, 2012) for the analysis, as follows:

Step 1: Familiarising myself with the data: I began by actively reading the data. This allowed me to immerse myself in the data by repeatedly reading the entire dataset (Braun and Clarke, 2006). The active approach allowed me to search for patterns across the dataset, making notes, reminders, and highlighting important quotes to stimulate ideas for future coding. Each transcript was vetted through the lens of the primary focus of the study – human rights, ethics, and legalities around the complexities of vaccination, as well as perceptions of vaccination as a personal choice or mandatory, and shared COVID-19 workplace experiences. Audio-recordings and transcription of the data assisted with clarity and adding verbatim quotes during the study write-up (Hill et al., 2022). Transcribing puts the qualitative data into a text-based format that made it easier to immerse myself in the data and to analyse them (McMullin, 2023).

Step 2: Generate initial codes: Transcripts were loaded on the Atlas.ti software programme to generate initial codes. Using the tool, extracts of the transcripts were highlighted and allocated codes. The coding process was primarily guided by the aims of the study. When coding the data, I allocated as many codes as possible in case I would need to refer to them at a later stage. The primary codes were allocated to extracts related to human rights, ethics, caselaw, mandatory vaccination, personal choice, and COVID-19 workplace experiences. Data were coded inconclusively to keep some of the surrounding data. Important quotes or interesting quotes that were highlighted in step 1 were automatically loaded onto Atlas.ti; when the transcripts were loaded onto the software, it allocated them a code. The tool allowed me to allocate extracts of the data to the various codes, and place participants' quotations under the most appropriate codes.

Step 3: Using the codes to form potential themes: I sorted the multiple codes into potential themes and collated the relevant coded data extracts within the identified themes. The codes were studied and linked together to create coherent clusters. For example, the codes for individual versus collective rights and bodily autonomy were clustered together, because these appeared to be concerned with addressing human rights and ethics. Codes that were misfits were allocated to a separate theme, for example, 'extra'.

Step 4: Identifying sub-themes and placing them into master themes: Thereafter, I reviewed the themes and began refining them to fit into master themes. During this phase, several frameworks were employed, offering a rich description of the gathered information. First, the social constructionist framework was employed as the conceptual model to develop the various themes. Themes related to participants understanding and perceptions of COVID-19 vaccines within the context of human rights were considered in relation to the South African Constitution. The themes related to participants understanding and perceptions of COVID-19 vaccines within the context of ethics where the four ethical principles by Beauchamp and Childress's were applied. The OHSA influenced workplace-related themes. These frameworks were not extensively employed, but they did influence the development of the master themes.

Step 5: Finalising themes into their essence: Themes were defined and further refined to capture their essence and to prepare me for the data analysis chapter. Themes were discussed and reviewed with my supervisors. The essence of each theme identified the knowledge and understanding of participants about human rights, ethics, relevant caselaw, perceptions toward vaccines being mandatory or a personal choice, perceptions of trust, and COVID-19 vaccine experiences in the workplace. The themes were refined to answer the research questions and will be discussed in greater detail in Chapter Four.

The table below illustrates selected open-ended questions that were asked during interviews and the themes and sub-themes that emerged.

Table 2: Selected open-ended questions used during the qualitative interviews and how the study themes and sub-themes developed

Study Aims	Interview Questions	Corresponding Theme	Corresponding Sub-theme
1. To explore participants' knowledge and understanding pertaining to ethical, human rights, and legal aspects of vaccination and mandatory vaccination.	1. "Should a person have the choice to refuse or accept a vaccine?" 2. "Do you think it is important for you to have a choice in what happens to your body?"	Theme 1: Knowledge and understanding of human rights, ethics, and legal aspects of vaccination.	1.1 Human rights and vaccination. 1.2. South African law and vaccination 1.3 Ethics and vaccination
2. To explore whether participants feel vaccines should be a personal choice or mandatory.	1. "What are your thoughts on vaccination being mandatory?" 2. "What are your thoughts on vaccination being a personal choice?" 3. "What makes you feel either safe or unsafe about the COVID-19 vaccine?"	Theme 2: Perceptions on whether vaccination should be mandatory or a personal choice.	2.1 Perceptions of mandatory vaccination. 2.1.1 'Compulsory' vaccination. 2.2 Perceptions of vaccination as a personal choice. 2.3 Factors influencing vaccine perceptions. 2.3.1 Childhood vaccination experiences. 2.3.2 Perceptions of trust in the science of COVID-19 vaccine. 2.3.3 Perceptions of trust in the South African government. 2.3.4 Experience of COVID-19 vaccination side effects.
3. To explore participants' experiences of COVID-19 vaccination within the workplace.	1. "How do you think your institution feels about COVID-19 vaccines?" 2. "What have been some of the challenges that you are aware of that have emerged in relation to these vaccines?" 3."What are your feelings toward the COVID-19 approach in your workplace?"	Theme 3: COVID-19 vaccine experiences in the workplace.	3.1 Institutional stance on COVID-19 vaccination. 3.2 Perceptions of coerced vaccination. 3.3 Perceptions of vaccination encouragement. 3.4 COVID-19 vaccination exemptions in the workplace.

3.7.1 Social constructionism: the conceptual analytical model

To complement the thematic analysis approach applied in this study, the social constructionism framework was employed as a conceptual model to interpret the research findings. It is used as a conceptual model that entails philosophical elements primarily focused on conceptualising and paying attention to social change in a postmodern society (Andrews, 2021). Burr (2015) applies social constructionism as a conceptual model to challenge belief and understanding of the world and ourselves. Burr (2015) suggests this is done through observation, critical reflection, and questioning the objectivity of traditional knowledge by placing emphasis on our awareness of assumptions and the importance of historical and cultural dynamics. Similarly, Freedman and Combs (1996) argue that beliefs and social constructs arise through collective social interaction, influencing the psychological fabric of 'reality' over time. In this study, this would suggest that people construct their own realities, which influence their perceptions of vaccines and COVID-19.

3.8 Ethical considerations of the study

Ethical issues emerge while researchers prepare for research studies. Therefore, ethical conduct is required throughout the research to uphold relationships (Kang and Hwang, 2021). Ethical conduct is a prerequisite to establishing and maintaining mutual relations to build trust with research participants. Sustaining an ethical relationship with participants creates a foundation for honest dialogue. This develops into a mutually beneficial relationship, as the researcher can collect extensive rich data while helping participants solve local or communal social ills. There are multiple ethical considerations in research, such as obtaining informed consent or informed refusal from participants, relaying details about the research study that the participants will be involved in, informing participants about who will be conducting the research, and ensuing dissemination of the research results (Savage, 2006). I found it important to uphold and adhere to ethical conduct to avoid ethical issues during the research stages.

3.8.1 Obtaining informed consent

Due to ethical considerations, it was crucial to gain informed consent from all participants before data collection. The informed consent process was informed by the Council for International Organizations of Medical Sciences (CIOMS, 2016) guidelines. All the participants in this study are adults; thus, they were able to provide consent to participate in this study. Informed consent

was obtained from each participant in assent letters where they agreed to participate in this study. The informed consent letter contained information on the participant's rights to withdraw from the study if they were uncomfortable and the right not to answer any questions they chose not to without any penalties. Informed consent was obtained for audio recording. In some instances, the participants also consented to video recording during the virtual interviews.

Before the research process began, I asked each participant whether they could have face-to-face interviews or preferred virtual ones. Some participants were not in KwaZulu-Natal, and thus, virtual interviews were conducted with them. Due to the research participants being employed and having time constraints, I had to accommodate them when they were available. They were also informed that their identities would be protected and that no harm would result from participating in this study. Pseudonyms would be used so that they would remain anonymous. Risks and benefits were indicated in the informed consent document, which was sent to all participants (Appendix C). None of the participants was coerced or unduly influenced to participate; they were not reimbursed or remunerated.

3.8.2 Independent review

The study proposal was submitted to the University of Kwazulu-Natal Biomedical Research Ethics Committee and received ethical approval. The protocol number is BREC/00005043/2022. A gatekeeper approval letter was also obtained from the institution to interview staff members. The protocol number is 01-01-2023.

3.8.3 Trustworthiness of the study

The trustworthiness of the data was informed by the principles suggested in Lincoln et al. (1985) as follows:

- Credibility was ensured through triangulation. The data has been presented plausibly to the best of my knowledge. Study findings are drawn from the original dataset and are a correct interpretation of participants' views.
- Transferability was ensured through the thick description. The experiences and the context of the participants have been accurately represented to provide a more meaningful experience for the reader.

- Dependability was ensured through the consistency of the data. The data analysis process was consistent with the intended study design.
- Confirmability was ensured through a transparent and accurate account of the steps taken from the start of the project to its development and findings.
- Reflexivity was ensured through the positionality discussion as a form of self-awareness (Lincoln et al., 1985).

3.8.4 Respect for recruited participants and the institution

To protect the identity of the research participants and the institution in which they were recruited, pseudonyms have been allocated to each participant. All transcripts will be stored electronically on my laptop and will be password-protected to maximise protection. All study documents will be securely stored in secure cabinets. Audio files will be stored on my password-protected laptop. All data will be secured in environments and password-protected electronics. Only myself and my supervisors will have access to the study information.

3.8.5 Feedback to participants

Upon completion of the study, I intend to disseminate a copy of the completed dissertation to each participant who was interviewed in this study. Should I intend to publish the dissertation, the draft final report will be submitted to the institution and the participants for review and response before such publication is finalised or published. A copy of the dissertation and any subsequent report or other publication that was based on the research, once completed and approved, will be submitted to the institution under study for record-keeping purposes.

3.9 Reflexivity

Research reflexivity is about the awareness of the researcher's role in the research practice and how this can influence the research objectives (Haynes, 2012). I draw on my positionality through reflexivity as it intersects with my occupational and academic position. I am an emerging researcher who works at a research institution in South Africa. At the advent of the COVID-19 pandemic, I worked on a project that used the WHO Behavioral and Social Drivers (BeSD) model to determine the predictors of vaccine hesitancy across four provinces in South Africa. The BeSD is a conceptual framework for social and behavioural change and programming (Petit, 2019). I was

placed at one of the four study sites and my role entailed conducting qualitative interviews and transcribing and coding the research data. Through this research on COVID-19, the data revealed that the community in which I was placed was the most COVID-19 vaccine-hesitant among the four study sites we were placed at. This experience stimulated my interest in the research topic of the current study – whether vaccination should be a personal choice or mandatory.

In my role as a social science (health research ethics) student, I learned about Beauchamp and Childress's bioethical principles and the various human rights laws, both international and national. I decided to incorporate these principles, as it was deemed important to include the legal aspects concerning the research aims. I chose to pursue this research because I have a deep interest in peoples' perceptions and understanding of policy implementation where there is an intersection with human rights and ethics. In the context of the COVID-19 pandemic, vaccine mandates were enforced in South African workplaces without allowing employees to express their perspectives. This situation left me grappling with whether this was the most effective strategy from the South African government. My aim was to provide a platform for workers who felt powerless during the implementation of COVID-19 vaccine mandates in their workplace and for those who strongly supported such mandates. I sought to offer an equal opportunity for both opposition and advocation to articulate their views on which approach they believed to be optimal.

When designing the study, I also thought about how I would gain access to and recruit participants who knew about the research phenomena. As an emerging researcher, I was able to access a pool of people who would have knowledge about the research topic and purposively recruited them. However, I felt somewhat intimidated and anxious because of the nature of the research and the participants being senior researchers and staff members at the institution. This was because I thought of their busy academic schedules and that they would not be prepared to make themselves available. I was concerned about how COVID-19 affected the participants differently and how they would respond to the questions because of the sensitivity of the COVID-19 vaccine. I considered how the impact of the COVID-19 pandemic varied for each individual.

3.10 Conclusion

Using the methodology and the ethical considerations applied in this chapter, the findings of the research will be presented in the next chapter. Extracts of the participants' direct quotations will be presented under their respective themes in Chapter Four.

Chapter Four
Research Findings

4.1 Introduction

This chapter presents the findings of the data generated during the research interviews with 20 participants. The study explored participants' perspectives about vaccination as a personal choice or mandatory, including the COVID-19 vaccine. The responses addressed the following aims:

1. What are the participants' perceptions on the role of the ethical, human rights, and legal aspects of vaccination and mandatory vaccination?
2. What are the participants' perspectives on whether vaccination should be a personal choice or mandatory?
3. What are the participants' experiences of COVID-19 vaccination within the workplace?

Aligned with these core research aims, three primary themes emerged, namely:

1. Perceptions of the role of human rights, ethics, and legal aspects of vaccination and mandatory vaccination.
2. Perceptions of whether vaccination should be mandatory or a personal choice, and
3. COVID-19 vaccine experiences in the workplace.

These themes and their sub-themes are discussed using the participants' verbatim responses. The themes relating to the questions that were asked in the interview guide are chronologically arranged in response to the study's aims. Also presented in the findings are codes that had a strong grounding in the coding software, for example, perceptions of trust. Codes that may not have had a strong grounding, but I thought would be important to the research findings are also reported, for example, 'compulsory' vaccination. The participants' quotations are arranged under the relevant themes to illustrate their perspectives as they pertain to the themes.

4.2 Theme 1: Perceptions of the role of human rights, ethics, and legal aspects in vaccination and mandatory vaccination

This theme focuses on the participants' knowledge and understanding of the role of human rights, ethical aspects, and legal components of vaccinations and mandatory vaccination. Here,

perceptions refer to the psychological processes involving the participants' lived experiences (Nurhayati, 2020). Participants were asked open-ended questions about the importance of bodily choices and vaccinations. Three sub-themes emerged: human rights and vaccination; Sout African law and vaccination; and ethics and vaccinations. Responding to these questions, participants alluded to their constitutional rights, certain ethical principles, and South African caselaw. In the next sub-section, the participants' perceptions about vaccinations as they relate to human rights will be presented first, followed by a description of some of the case law mentioned by the participants. This sub-section will conclude with the participants' perceptions and understandings of the ethical aspects of vaccinations.

4.2.1 Human rights and vaccination

The data yielded from the participants regarding human rights and vaccinations provide evidence to show that they considered their human rights to be crucial when deciding whether to be vaccinated. In this context, human rights refer to the inherent freedoms that apply to all persons (United Nations, 1948). In their responses, participants alluded to their constitutional rights, particularly the BOR. For example, Participant 5, as shown below, alluded to "freedom" as it relates to Section 7 of the Constitution. Participant 8 alluded to "freedom of expression", which can be interpreted as Section 16, the right to freedom of expression. Participant 18 alluded to Section 12 of the constitution, the right to bodily and psychological integrity, stating "I don't want to do that with my body."

> *"I need to choose what is happening to my body … I think I need to exercise that right and that **freedom.**"* [Section 7 & 12 of the BOR] (Participant 5: PH)

> *"… Remember, the Constitution has got a provision that mentions **freedom of expression** … They don't want to vaccinate …"* [Section 16 of the BOR] (Participant 8: PH)

> *"I do think that you have the ultimate right to say, but **I don't want to do that with my body** I don't feel like injecting myself. Do you know what I'm saying?"* [Section 12 of the BOR] (Participant 18: PD)

In recounting their perspectives, two participants alluded to Section 36 of the Constitution, which refers to the limitation clause. Participant 1 believes that the South African government properly applied Section 36 of the Constitution during the COVID-19 pandemic. Participant 1 also implies that the restrictions placed on individual liberties during the COVID-19 pandemic were reasonable and justifiable.

> *"... But I was always of the opinion that* ***Section 36*** *was applied properly by the government* [during the COVID-19 pandemic]. *In this case, I mean* ***reasonable and justifiable in an open and democratic society. I do think that it was reasonable and justifiable*** **[Section 36 of the BOR]** *..."* (Participant 1: PS)

Participant 16 also alludes to Section 36, indicating that all other options should be explored before limitations are instituted. Section 36(e) describes this as seeking the least restrictive means before limiting a right entrenched in the BOR. This implies that the right to reject COVID-19 vaccination should be limited based on Section 36 of the BOR. However, that limitation should only apply because all other alternatives have been explored before that right is limited.

> *"... I don't believe that every right should be absolute. I don't believe that they should preside over everything. But I do believe that, in particular contexts, there should be room for certain* ***limitations****. However, at the same time, before we impose our limitations, other m****easures or other alternatives need to have been fully exhausted and then as an absolute last resort*** **[Section 36(e) of the BOR]** *..."* (Participant 16: L)

The participant in the extract below believes there is a distinction between individual and collective rights as it applies to vaccinations.

> *"When you're talking about vaccines and vaccination, how are your* ***rights infringing on other people's rights?*** *We then go on to ask the other question, do people actually have* ***personal choices when it comes to public health?*** *'Cause* ***public health is not personal health****. It's different, personal health is about* [me]. *I need to take care of myself. I need to do 1-2-3, but public health then means my health then interacts with other people, with society at large and therefore how do I protect the people I live with in my society to make sure that they are well? So that's the important part****. If your personal choice then infringes***

on the rights of other people, then you are infringing a public health right *…"* (Participant 5: PH)

A comparison was made between COVID-19 and HIV (sexually transmitted disease), where Participant 13 compared COVID-19 transmission to HIV transmission. For example:

"… It's the same sort of thing that's ***violating somebody's sense of integrity and feelings of safety, and their dignity.*** *How different is that from somebody who's afraid of dying from COVID? They live with that fear daily if somebody around them is refusing to take the vaccine, and in a sense that* [is] *selfishness, because it is a known risk and it can lead to death. It's the same thing as having HIV and knowingly sleeping around without protection … how different is it to refuse to have the COVID vaccine and move around freely? To my mind, there's no difference …"* (Participant 13: P)

Reflected in the participant's narrative is the perception that an individual's choice to refuse or accept the COVID-19 vaccine should be weighed by how an infected person's freedoms threaten people who are not infected.

4.2.2 South African law and vaccination

In recounting their perspectives, two participants alluded to caselaw to describe their understanding of the legal components in matters that pertain to vaccination.

"I think it was in the Eastern Cape or somewhere in one of the rural provinces. They said about ten years ago, maybe longer, 15 years ago, the TB shots were not working because of the certain strain … it goes back to the [COVID-19] *example like the TB thing. I mean* ***they had to confine people. I suppose institutionalise them****."* (Participant 20: SA)

In the response above, Participant 20 discusses the *Minister of Health of the Province of the Western Cape v Goliath and Others* (13741/07) [2008] ZAWCHC 41; 2009 (2) SA 248 (C) (28 July 2008), 2008 case, where people who had a drug-resistant strain of tuberculosis were isolated from society because the government was trying to prevent them from spreading TB to non-infected people. In this case, emphasis is on collective rights as superior to individual rights, which

is an individual right to freedom (Section 21 of the BOR) is limited in the interest of protecting the health and safety of society.

Participant 17 discusses the *Bessick v Baroque Medical (Pty) Ltd* (WECT 13083/21) [2022] ZACCMA 1 (9 May 2022) case. An employer dismissed an employee who refused the COVID-19 vaccine. His refusal was based on the grounds of Section 15 of the BOR – the right to freedom of religion, belief, and opinion. The CCMA ruled that, in the interest of protecting other colleagues and customers at the workplace, the collective right to a safe working environment supersedes the individual right to Section 15.

> *"With this one* [caselaw] *specifically, it was due to his religious beliefs at church to say that they are not putting anything foreign into their bodies. The matter went to court, in fact, it went to the CCMA because he was dismissed. The CCMA Commissioner ruled that the risk to other employees was more important than his religious belief. He ended up being dismissed because he was going to put the lives of the customers and employees at risk."* (Participant 17: L)

In summary, the data yielded within this theme of human rights and vaccination provides evidence that when these participants were deciding whether to vaccinate or not, they gave thought to their individual freedoms as important aspects of their decision-making.

4.2.3 Ethics and vaccination

Ethics refers to moral principles that govern what is morally good and bad and morally right and wrong (Singer, n.d.). In their responses, participants alluded to bioethical principles, particularly bodily autonomy. Most of the participants revealed that the decision to vaccinate should be a voluntary decision that is free from undue and external influence. From this perspective, it appears that it should be informed by an individual's unique circumstances. Participant 9 mentioned that vaccinations should not be a decision that is influenced by the government members receiving the vaccine.

> *"It* [vaccination] *should be your own decision that's* ***informed by your lived situation****, not because the president is on TV and telling people that he got vaccinated or whatever."* (Participant 9: PH)

Conflicting notions were also revealed in participants' responses. Some of the participants observed that there should be limits to one's bodily autonomy. An example shared by Participant 14 is that, under emergency circumstances, a patient is not conscious and therefore permission to conduct the life-saving procedure cannot be obtained. In this instance, the physician should still perform the life-saving procedure without the consent of the patient. This example demonstrates a limitation of bodily autonomy (i.e., the lack of consent). The narrative is that COVID-19 vaccination was one of those emergency situations and limits should be placed on people's autonomy in deciding to vaccinate or not.

> *"Within certain limitations. Bodily sovereignty is very, very important but then there are like lots of* ***limitations on bodily sovereignty****, for example, say you're in a serious injury, you're unconscious, and people come, and they have to perform some kind of emergency procedure on you. They perform that and they don't try to wake you up and ask your permission to cut into you and deal with your injury. They perform that life-saving or health-saving procedure on you, regardless of your consent in that circumstance, realising the necessity of providing life, and seeking care. Indeed, there are certainly other ones."* (Participant 14: P)

Participant 6 raised a question pertaining to bodily autonomy in terms of vaccination and abortion. The narratives relate specifically to the bodily rights of women. The participant questioned how one measures bodily autonomy, since women can express their right to bodily autonomy in matters about abortion, but in matters related to vaccination, that right is limited. This implies that there is an imbalance in matters that pertain to bodily choices, specifically for women. Additionally, the participants expressed that, in some instances like abortion, bodily choices are important; however, in other instances, such as the choice to vaccinate, the same rule does not apply to women.

> *"… Then bodily autonomy is important. I think it's quite difficult because then people say, oh, I have ownership of my body.* ***When and where do the limits of bodily autonomy begin and end****. When do you know why? It's a slippery step.* ***Why do we want women to make decisions about abortion?*** *Why are we giving them bodily autonomy there? But we're not giving bodily autonomy for issues around vaccines. I think those are the conversations people will bring up."* (Participant 6: SS)

In summary, the data yielded under this theme of ethics and vaccination provides evidence that, when these participants were deciding whether to vaccinate or not, they gave thought to the ethical considerations of vaccination as important aspects of their decision-making.

4.3 Theme 2: Perceptions of vaccination as a personal choice or mandatory

Participants were asked open-ended questions about whether vaccination should be mandatory or a personal choice. The discussion and this theme explore the participants' perceptions of mandatory vaccination or whether vaccination should be a personal choice. The theme also discusses factors influencing the participants' perceptions of vaccinations to justify their perspectives. Lastly, it discusses perceptions of trust. In this discussion, varying degrees of trust and mistrust are articulated regarding the various role players responsible for developing, regulating, and administering the COVID-19 vaccine and, in some instances, vaccines in general. Generally, people support vaccination but have different views or are undecided about whether it should be mandatory, compulsory, or a personal choice.

4.3.1 Perceptions of mandatory or 'compulsory' vaccination

Mandatory vaccination implies that a person must be vaccinated as a prior condition to being involved in certain activities or services (WHO, 2022:1). The data revealed that six of the 20 participants supported mandatory vaccinations, which was associated with the belief that vaccination can protect the health of society and is perceived as an act for the greater good. Participants 4 and 10 refer to examples where vaccinations have eradicated viruses, which have protected public health and acted in the interest of the greater society. For example, the polio vaccine has eradicated the polio virus in most parts of the world. Another example was the smallpox vaccine, which eradicated the smallpox virus.

> *"... From a public safety point of view, mandatory vaccines are probably the way to go. It's a very small sacrifice to pay for a much greater collective public health outcome. If you think about how polio was eradicated, it was because we vaccinated everyone against polio and then you never have to do that again because we have eradicated polio ..."* (Participant 4: PS)

> *"You do have a vaccine for smallpox, so I kind of think that we know that it can decimate populations, it can decimate a large number of people, so something like that, given the history and the insights that we have about it, it* [vaccination] *should become mandatory."* (Participant 10: HE)

The question about participants' thoughts on vaccinations being mandatory were responded to by a limited number of participants who held a perception that vaccinations should be 'compulsory'. Here, compulsory vaccinations imply that a person must vaccinate, and non-compliance will result in legal consequences (Gibelli et al., 2022). Only two of the 20 participants believed that vaccination should be compulsory and used the COVID-19 pandemic as an example of a situation that required a compulsory mandate. The justification for this perception was the mutable nature of the COVID-19 virus, suggesting that there is still a risk of people contracting the virus, placing other people's lives at risk. It appears there is a concern for people with underlying health conditions contracting the viruses as they are particularly vulnerable. Participants also refer to rural populations and marginalised groups of people worldwide where vaccine accessibility is limited. Therefore, people who can vaccinate should be vaccinated to protect vulnerable populations.

> *"I think they should be compulsory, especially the COVID vaccine because it's still a risk. To come back to your question, it should still be compulsory, even though we are past the global public health emergency phase, there is still a risk that people will be exposed to the worst forms of the virus and could either they themselves die or come into contact with somebody who is suffering from comorbidity and will die, who's also not been vaccinated for whatever reason, especially our large rural populations that are probably still unvaccinated and especially elsewhere on the continent and in the globe where the vaccines haven't yet reached."* (Participant 11: L)

In summary, the justification for mandatory and compulsory vaccination was based on the community's health and well-being.

4.3.2 Perceptions of vaccination as a personal choice

Personal choice implies that a person's decision to vaccinate is informed by their freedoms and circumstances (Zolkefli, 2017). Although nine of the 20 participants favoured vaccination as a

personal choice, most of the participants supported vaccination. For example, participants held a perception that their choice in the matter should be supported. They also alluded to acting responsibly with their choices concerning vaccination. The extracts below also revealed that alternative options should be provided, even during a pandemic.

> *"I can still emphasise that vaccination is important. The information about every vaccination is very important; however,* ***people should be given choices****, but they also need to know that those* ***choices come with responsibiliti****es."* (Participant 8: PH)

> *"... So it's a tricky one to juggle. But I completely accept, and* ***I lean more towards personal choice.*** *But I do also feel that if we stray too far to the extreme end of personal choice, we do also have to realise that choice and rights also come with responsibility ..."* (Participant 1: PS)

> *"****I think it should still be a personal choice.*** *If we are in the midst of a peak of a pandemic and somebody refuses to take the vaccine, I think there should be* ***alternative options. It must be a personal choice.****"* (Participant 15: RP)

Like Participant 13, under theme one, another participant related COVID-19 with HIV. Participants who were in favour of vaccination as a personal choice emphasised exercising choice with responsibility. For example, Participant 14 referred to a hypothetical scenario of COVID-19 and HIV/AIDS vaccination. This participant's narrative revealed that, if an individual exercises their choice not to receive an HIV/AIDS vaccine, responsible behaviour would look like abstaining from sexual conduct or using preventative measures such as condoms to prevent further HIV transmission. Similarly, if an individual decides not to receive the COVID-19 vaccine, they should behave responsibly. This would translate to, for example, isolating people suspected of being infected.

> *"It should be a personal choice to the extent that, if I decide not to get vaccinated ... I stay in my house for the rest of my life, then it is my choice.* ***But as a personal choice, for instance, if there was an HIV AIDS vaccine and I decide not to take HIV AIDS vaccine. Therefore, I should not have sexual relations with anybody for the rest of my life.*** *That's my personal choice, or I should use condoms or whatever can prevent me from*

contaminating other people. ***With COVID-19, I think people should have the choice. But then it's about how you behave once you have taken that decision not to vaccinate****."* (Participant 14: P)

Although most participants appreciated the value of vaccinating, some of the participants raised concerns about the implications of a vaccine mandate. For example, Participant 6 raised a concern about mandates creating a false dichotomy where mandates can foster anti-vaxxers because of the pressure placed on individuals to decide whether they intend to support or oppose vaccination. Participant 1 mentioned that a mandate would create an environment of anxiousness because the nature of a mandate has the potential to destabilise environments. A few participants thought mandatory vaccination sets the wrong precedent and could potentially lead to exploitation by the government. They cautioned that, during the COVID-19 pandemic, people illegally purchased vaccine certificates as a way around the vaccine mandate.

"I think that my issue with mandates is that I think it creates a false dichotomy and it ***forces people into camps****, so people who may have been on the fence about it* [vaccines] *would become anti-vaxxers purely because there's a mandate in place …"* (Participant 6: SS)

"I wouldn't feel at ease, I would feel uneasy, I would feel a bit anxious, because of the potential ***destabilising nature*** *of something like this* [mandatory vaccine] *… It* [vaccine mandate] *also creates an unhealthy precedent going forward. Whenever governments feel like they're struggling to get citizens' buy-in, they just* ***impose a mandatory whatever****."* (Participant 1: PS)

"I know people personally who ***paid whatever it was to get a certificate*** *that said they were vaccinated. So what is the purpose of making something mandatory?* ***If we force people into spaces where they really don't want to do it but they'll find ways around it.****"* (Participant 3: RP)

Furthermore, three of 20 participants found the question of whether vaccination should be a personal choice or mandatory a complicated question to answer. These participants' views revealed that such questions raise ethical dilemmas. It appears that the question of whether vaccination

should be a personal choice or mandatory is circumstantial and one that requires a philosophical discussion.

> *"... To me this is a bit of **an ethical dilemma**, to be honest ... There are no easy answers to such **difficult questions** ... It is kind of a yes, but no, kind of answer ..."* (Participant 18: PD)

> *"I think the struggle* [of vaccination] *is a bit **of a philosophical discussion** ..."* (Participant 8: PH)

> *"I think it's a complicated question. **I think I've had shifting views with time** ... I think that I don't have a complete yes or no answer for you because it's very circumstantial ..."* (Participant 7: RP)

In summary, advocation for personal choice in vaccination revolved around individual freedoms, much-needed education about vaccines, and fears surrounding vaccine mandates. Uncertainty surrounding vaccination revolved around the complexities required to strike a balance between individual freedoms and public health protection. Figure 3 below illustrates the respective numbers of those who advocated for vaccination as mandatory, compulsory, a personal choice, or those who were uncertain.

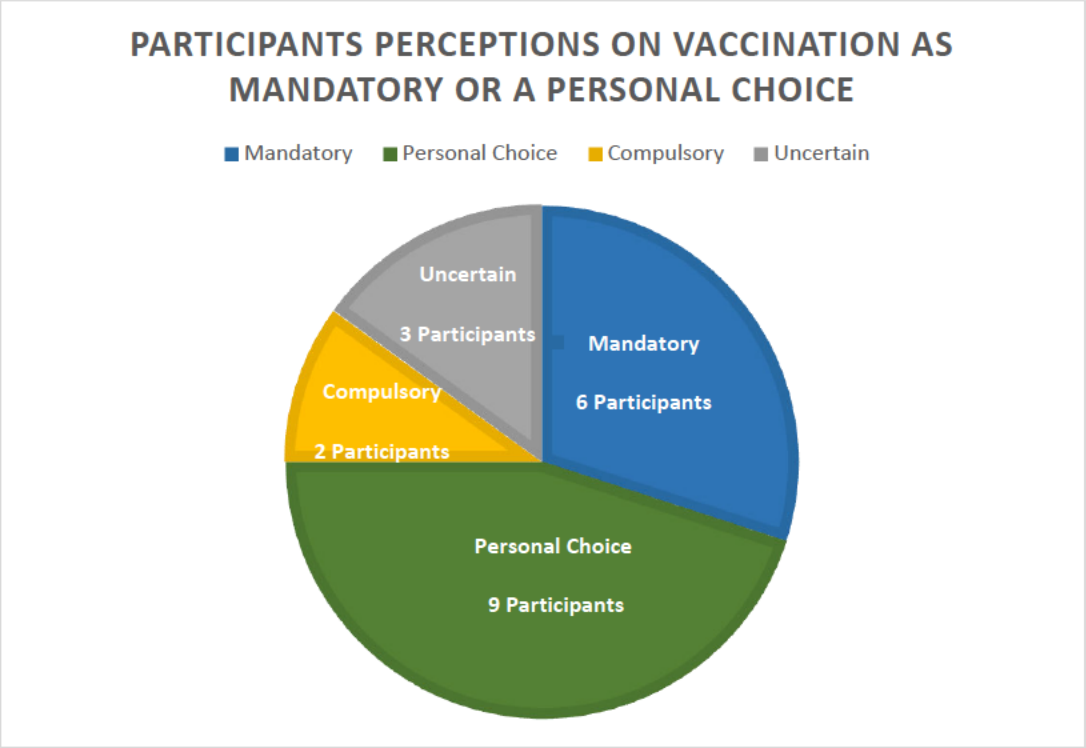


Figure 3: An illustration of participants' perceptions as to whether vaccination should be a personal choice, mandatory, compulsory, or they are uncertain

4.3.3 Factors influencing vaccine perceptions

This section describes the factors influencing the participants' perceptions of vaccines and vaccination. These perceptions show how these participants interpret or regard the various role players who are responsible for the development, regulation, and administration of the COVID-19 vaccine and in some instances, vaccines in general. Sub-themes included: childhood vaccination experiences; perceptions of trust in the science of vaccines, the South African government, and experiences of COVID-19 vaccine side effects.

4.3.3.1 Childhood vaccination experiences

In recounting their feelings, some participants mentioned their childhood vaccination experiences. Respondent 11 shared an experience during his/her childhood about a classmate whose parents declined the polio vaccine on her behalf. It appears that she had no legal capacity to make that decision for herself because she was a minor. The respondent's extract revealed that, when the girl contracted polio as a result of not being vaccinated, she developed weakened limbs and used metal

frames around her legs for stability. This childhood experience appears to have entrenched the importance of vaccination for Participant 11.

> *"…* [I] *think at nursery school, I was old enough to have a polio vaccine as a child and then at school, I had a classmate, a girl, whose parents had not given her the polio vaccine, and* ***she contracted polio. She came to school on calipers. She had to walk using crutches and middle, metal frames around her legs because polio had affected her. I saw the effects of not having the vaccine. My faith in vaccines was reinforced*** *…"* (Participant 11: L)

Like with childhood vaccines, some respondents revealed that they feel safer about the traditional vaccines, such as for smallpox and measles, as opposed to the more contemporary forms of vaccines such as the COVID-19 vaccine.

> *"I'm a bit more sceptical but I think when I was younger or in the past, vaccines were* ***done purely for the good of mankind*** *with* ***long-term studies*** *that took* ***years and years and research*** *and that like, you know, the* ***smallpox vaccine, the measles vaccines*** *and that. I think that really* ***helped mankind*** *as a whole, but with this* ***COVID one, I'm very sceptical****."* (Participant 2: M)

Participant 2 raised feelings of scepticism toward the COVID-19 vaccine. The scepticism stems from the perception that traditional vaccines were done purely for the good of humanity and that years of research contributed toward their development with more long-term studies. Participant 2, who is not a researcher, held a particular view that he/she has more trust in childhood vaccination but mistrust in the COVID-19 vaccine because the COVID-19 vaccine was developed over a shorter period than traditional vaccines. According to this participant, the COVID-19 vaccine is not for the good of humanity.

4.3.3.2 Perceptions of trust in the science of the COVID-19 vaccine

The accelerated COVID-19 vaccine development period was a primary concern for many participants, even those who supported vaccination. For example, Participant 10 mentions that rapid development was a global concern; however, the scientific processes which include scientific testing and the necessary regulation approvals that occurred justified the swift development of the

COVID-19 vaccine. It appears that the nature of the COVID-19 virus was so severe that it resulted in increasing mortality rates, justifying its prompt development. For Participant 10, the shortened period in which the COVID-19 vaccine was developed was a concern.

> *"... I don't think there's* ***anybody in the world*** *that wasn't* [concerned] *because it* [COVID-19 vaccine] *was developed so rapidly. But the way that this was explained, the* ***process and the science behind it****, the* ***testing*** *and the* ***approval*** *and all that. It really was something that was remarkable and shows that ... So, this was something that had to be done in the time. This* ***time taken was not the norm*** *in the development of vaccines. It's* ***not normal to develop so quickly****. But given* ***the nature of the virus*** *and* ***the deaths that were ocurring****, it was necessary to go the way it did ... "* (Participant 10: HE)

Despite the concerns raised about the accelerated development of the COVID-19 vaccine, two participants revealed that, because they had trust in the scientists responsible for the advancement of the COVID-19 vaccine, they consequently trusted its development. For example, Participant 7's extract revealed that he/she has personal relationships with some of the scientists, and so he/she trusted their expertise because of their significant experience in both national and international HIV trials, their significant experience in clinical trials, and their many years of scientific experience. This made him/her feel certain that the development process of the COVID-19 vaccine was safe and well-regulated. For Participant 7, trust in the scientists leading the development of the COVID-19 vaccine resulted in trust in the vaccine.

> *"I felt* ***confident in the scientists*** *who were leading these kinds of studies. I* ***know many of them*** *were leading some of the* ***HIV work in our country and abroad****. And so they had been* ***vaccine scientists for many years.*** [They have] *significant* ***experience with clinical trials****, so I do feel that the process in and of itself is* ***very safe and regulated*** *... "* (Participant 7: RP)

Participant 7's perceptions show agreement with those of Participant 16. For example, due to Participant 16's understanding of the scientific process, there was a high level of trust in vaccines in general, which includes the COVID-19 vaccine. He/she further explained that there are phases in vaccine research, scientific processes, preclinical safety studies, and post-efficacy studies, as

well as rules and regulations in vaccine research. The impression is that having this knowledge positively influenced trust and safety in the COVID-19 vaccine.

> *"So, I think what makes me feel safe about vaccines and research in general is that I understand the scientific process … it was clear that there are these phases of research … you just can't just pick something up and start putting it into humans because you think it might be something that works.* ***There's a scientific process, preclinical studies, there's safety studies and then you get efficacy studies*** *and knowing the* ***rules and regulations around that system*** [is helpful]*."* (Participant 16: L)

In reporting their feelings of safety or unsafety about the COVID-19 vaccine, some of the participants' narratives revealed a level of distrust in pharmaceutical companies, because they perceived them to be motivated by profit instead of the health and well-being of society, particularly related to COVID-19 vaccines. For Participant 11, a lack of trust in the pharmaceutical companies has resulted in a lack of trust in the COVID-19 vaccine.

> *"It's tragic to see and also* ***big pharma is a lot about profit rather than human well-being*** *when it came to COVID … I mean just the opioid crisis in North America is just proof of some of those negative* ***side effects*** *that have been* ***overlooked*** *or just lost over, to the severe detriment of many people who are now addicts and having their lives and the lives of their families and friends destroyed."* (Participant 11: L)

4.3.3.3 Perceptions of trust in the South African Government

Participants' perceptions of trust reveal conflicting notions of credence and scepticism toward the government. For example, Participant 11, who is a researcher by occupation, explained:

> *"What our research found was particularly at the beginning of the* [COVID-19] *pandemic and round about the middle point of the* [COVID-19] *pandemic, trust in the President was exceptionally high and it's never been that high since. You know, before the* [COVID-19] *pandemic … our researchers found, it was* ***around about 60% at the beginning of the pandemic, around 80%*** *middle point of the pandemics …"* (Participant 11: L)

The perception is that trust in the government has never been this high since before the COVID-19 pandemic. For Participant 11, trust in the government resulted in trust in the COVID-19 vaccine.

This conflicts with Participant 10's view: he/she revealed that he/she followed the vaccine debates and considered it a highly politicised matter globally. For Participant 10, a lack of trust in the government resulted in mistrust in the COVID-19 vaccine.

> *"I strongly believe that the push for this* [COVID-19] *vaccines was* ***not just a one that was driven by public purpose*** *... If you notice, if you can follow the debate, there were those who are going for Johnson and Johnson. There were those who were going for Pfizer. I did not understand, for example, why they were so much against the Russian one, which took me now into geopolitics, I found myself in other spaces that have nothing to do with science, which made me suspicious of this.* ***It became difficult to believe what the government is saying because it depends on who is saying it. And then the government created that*** **[COVID-19]** ***committee; they were fighting amongst themselves. They couldn't work as a coherent team****."* (Participant 10: HE)

It appears that trust in government influences perceptions of safety or unsafety in the COVID-19 vaccine. For example, Participant 1 referred to the sentiments shared by former South African Chief Justice Mogoeng Mogoeng, who publicly declared his mistrust of the COVID-19 vaccine. Furthermore, it appears that the prioritisation of high-income countries over low-income countries revealed a divide between these countries and that people involuntarily become either vulnerable or advantaged as a result of the country they live in. This indicates that perceptions of trust, of both national and international COVID-19 vaccine role players, influence how people perceive the vaccine and, ultimately whether they trust it or not.

> *"I'm not blaming him for this, but* ***Chief Justice Mogoeng Mogoeng certainly did not help the cause with his sentiments*** *... The problem is with the vaccine, and the vaccine programme that emerged showed that we live in a highly divided world. If you recall what happened;* ***so, the rich countries were actually the first to get these vaccines So, we live in a situation where, depending on where you stay, in which country you live in, you are vulnerable or you advantaged****."* (Participant 1: PS)

The narrative held by Participant 20 was that vaccination is a politicised matter and that not prioritising certain groups of people, particularly those who are part of vulnerable groups, influenced perceptions of trust in the government. It appears that, as a vulnerable population,

requests were made to be included in the elderly group of people who were first (following frontline workers) to receive the vaccine, as per the COVID-19 rollout strategy. This request stemmed from not being able to protect themselves, for example, from their caregivers who could have inadvertently infected them.

> *"The other thing that also politicised COVID-19 was … the lack of prioritisation in some people … There was strong demand for people with certain disabilities that they get vaccinated because you can't control, you can't force a* ***care worker with somebody to be vaccinated****. But they wanted to* ***get priority*** *vaccination like the elderly because* ***they felt that they were susceptible, given the needed interaction with carers****…"* (Participant 20: SA)

In summary, these narratives reveal that various role players were responsible for developing, administering, and distributing the COVID-19 vaccine. Previous childhood experiences and trust in these various role players influence how people perceive vaccination in general, which includes the COVID-19 vaccine; this, therefore, influences their perceptions about whether vaccination should be mandatory, compulsory, or a personal choice, or whether they are uncertain.

4.3.3.4 Experiences of COVID-19 vaccination side effects

Another factor that influenced participants' perceptions about the COVID-19 vaccine was the side effects of the vaccine amongst those who had the vaccination. Participants who took the COVID-19 vaccine shared their experiences post-vaccination. For example, Participant 9 mentioned "feeling really sick"; other side effects reported included fever, body pains, headache, and nausea, and that these symptoms can last up to seven days. While most of the participants experienced side effects, they explained that the chances of more severe side effects occurring would be rare.

> *"… In January 2021, except that in 21 it lasted for about seven days … but the symptoms are the same as actual* ***COVID: fever, body pains, headache, nausea, you feel really sick****."* (Participant 9: PH)

In recounting their feelings of safety or unsafety toward the COVID-19 vaccine, Participant 6's narrative reveals that there are side effects to the COVID-19 vaccine that are bad, particularly for

men. Along similar lines, Participant 7's narrative reveals that women were concerned about how the vaccine would impact their ability to reproduce.

> *"I was well aware of some of the side effects that were mentioned or highlighted. And, of course, there were some worst-case scenarios. You know, there are some* ***side effects that were particularly bad, especially for males****."* (Participant 6: SS)

> *"There were people who had legitimate concerns and* ***women who were concerned about their ability to reproduce****."* (Participant 7: RP)

4.4 Theme 3: COVID-19 experiences in the workplace

This theme explores the experiences of researchers and staff members working at a South African research institution. Participants were asked open-ended questions about their experiences of COVID-19 vaccination in the workplace. Under this theme, four sub-themes emerged: institutional stances on COVID-19 vaccination; perceptions of coerced vaccination; perceptions of vaccination encouragement; and COVID-19 vaccination exemptions in the workplace.

4.4.1 Institutional stance on COVID-19 vaccination

Many of the participants' narratives revealed that the institution implemented a mandatory COVID-19 vaccination standpoint. Participant extracts also revealed that they were required to show proof of their vaccination certificate to be allowed into the workplace. Alternatively, participants' responses reveal that they could provide a negative polymerase chain reaction (PCR) test instead of a vaccine certificate. The responses show that the institution supports COVID-19 vaccines and vaccination in the workplace.

> *"I'm certain that they* [institution name] *had made it* ***mandatory for all those who were unvaccinated*** *to not enter the building."* (Participant 2: M)

> *"I think the way it was implemented was such* ***that if you are not vaccinated, you would not even come to the office at some stage.*** *People are now beginning to say you must show that* [COVID-19] ***certificate*** *that you have."* (Participant 9: PH)

> *"I'm thinking of the* [institution's] *policy which I know it came very late, where you had to be vaccinated. If you didn't, it wasn't really a punishment, but you had to show a* ***negative*** **[PCR]** ***test*** *every time you entered the office."* (Participant 12: P)

A closer look at the responses reveals that consultations and surveys took place in the workplace before the institution took a stance on COVID-19 vaccination. Participants explained that employees had conflicting notions in the workplace about whether or not to implement a mandatory COVID-19 policy because some employees in their institution were in favour of, and some were opposed to, a vaccine mandate.

> *"I understand why but I also think it* [institution name] *tried playing it safe; they* [institution name] *played it down the middle. They* ***consulted, they had surveyed****, etc. But they were not clear on where they stood as an institution, while there are other institutions that were quite clear on workplace requirement."* (Participant 3: PD)

> *"I think the policy in and of itself* ***was not clear to me****. Some people* [employees] *wanted a* ***mandatory policy****, and some* ***people didn't****, but in the end, I don't think there was something that was clear and coherent that was applied or where we were given guidance on how to apply that policy to our individual circumstances, I think, and when the* ***policy on vaccination came, I think it*** **[policy]** ***was not applied****."* (Participant 13: P)

A closer look at the extract from Participant 13 reveals a level of uncertainty about whether there was a policy, and if there was a policy, it was not a clear and coherent policy. Participants 3's and 13's narratives reveal a conflict about policy awareness in the workplace.

4.4.2 Perceptions of coerced vaccination

Participants were asked about their views toward the COVID-19 approach in their workplace. In recounting their experiences, a few participants revealed notions of feeling forced or pressured into vaccinating by their current employer. It appears, based on the extract of Participant 10, that their employer decided on his/her behalf to vaccinate when the institution implemented a COVID-19 vaccine mandate and that their choice was taken away. It also appears that this participant was

vaccine hesitant. Vaccine-hesitancy refers to a delay or refusal to accept a vaccine, despite its availability (World Health Organization, 2015).

> *"I think that the mandate that was given by my employer kind of* ***made that decision for me*** *that I need to go for the vaccine. Because I was* ***on the fence*** *about it and* ***I don't think I would have gone for the vaccine if it wasn't for my employer stating that you will be refused entrance into the office if you are not vaccinated****.* ***I think I was forced into it.***' (Participant 10: HE)

Of the participants who felt pressured into vaccinating, Participant 9 mentioned that there was 'hidden' pressure, that was not revealed, for people to vaccinate. It appears that, because a vaccine certificate was a prerequisite to enter the workplace, banks, shopping malls, and other places, the pressure was coming from the government for people to be vaccinated, which infiltrated various institutions, even the workplace.

> *"I think there was* ***there was pressure****, but that pressure was* ***hidden*** **[and]** ***was not revealed****. There was that. I don't think it was the pressure that the institution took as their stance, but that was* ***coming from the government*** *because there was a time when you had to produce your* ***vaccination certificate in order to enter the*** **[institution name]** ***premises****, of which it was happening in* ***other places, even the banks, even shopping malls****. The pressure happened at that level*." (Participant 9: PH)

Participants' narratives revealed that the mandatory COVID-19 vaccine stance that the institution took "affected so many people" and, more specifically, employees who opposed vaccinating for religious grounds. It appears that, despite the institution not being willing "to go that far" in terms of dismissing employees, as the COVID-19 mandatory policy did not mention the term 'dismissal', employees who were hesitant to vaccinate succumbed to vaccinating because of fears of possible dismissal. It also appears that, instead of dismissing employees, alternatives were an option, for example, working from home.

> *"What I can say to you is that I have realised that indeed it has* ***affected so many people****, especially those who want to comply with their* ***religious beliefs****. Most of them had to go get vaccinated, mandatory, just to* ***save their jobs****."* (Participant 15: RP)

*"I think there **was a fear of dismissal**, although that **wasn't really an option** that we weren't prepared to go that far. I think she really just felt extremely strongly about her rights and **maybe feared dismissal.** But as I said, I don't think the **word dismissal was used in the policy**, so we would have made an arrangement for you to **work from home**, for example."* (Participant 19: L)

4.4.3 Perceptions of vaccination encouragement

Many of the participants' narratives also revealed experiences of feeling encouraged by their employer to vaccinate against COVID-19. In recounting their experiences of feeling encouraged, they revealed that some participants received their first COVID-19 vaccine through work-related projects. It also appears that, in its efforts to encourage vaccination, the institution arranged for COVID-19 workplace vaccine drives, whereby nurses and staff from the National Department of Health (DOH) were invited to some of the offices to provide vaccination services to people who wanted to vaccinate.

*"I know that there was a lot **of encouragement** from our institution to get vaccinated. My first vaccination, in fact, came through a **work-related contact** before the vaccines were being rolled out. We got it as part of a study. I've forgotten the name of the study now, but that big COVID vaccine Johnson and Johnson study because we were working in a health context and so I thought there was lots of encouragement."* (Participant 13: P)

*"We encourage people to take the vaccination; we've had **vaccination drives** in our Head Office where the **nurses were at the office** and if you didn't get a chance to vaccinate, we had people in the foyer from the **Department of Health.** They were at the foyer and you could go in and get **vaccinated if you so wished to**."* (Participant 19: L)

Participant narratives also revealed experiences of workplace platforms that were created for employees to discuss their fears about vaccinating and that the decision to vaccinate was to be made by the employee. It appears that employees took group pictures after receiving their COVID-19 vaccine from the nurses who were invited to the workplace to support vaccine encouragement. The narrative of feeling encouraged conflicts with the narrative created by staff who mentioned that they felt forced or pressured to vaccinate. It is assumed that, because the institution has offices

in various provinces, how the mandatory COVID-19 policy was applied in the workplace may have been different at each office within the various provinces. It is also assumed that the methods implemented (i.e., vaccine drives) could have been perceived to be forceful and pressured.

> *"The* [institution's] *approach to its employees, it's more like* ***encouraging*** *but it is not mandatory. It is encouraging people to vaccinate. They created a* ***platform*** *for people to talk about their* ***fears*** *… but a lot of it was left to people to* ***take decisions****."* (Participant 14: P)

> *"We did a whole thing when we had, when we got vaccinated, we took* ***photos****. We got a* ***sister*** [nurse] *or something to take photos and what have you."* (Participant 13: P)

4.4.4. COVID-19 vaccination exemptions in the workplace

In recounting their experiences, participant responses reveal some challenges that emerged in the workplace regarding vaccination. For example, Participant 16, a senior researcher, explained his/her experience of COVID-19 vaccine exemptions within the workplace. The participant recounted that three applications were received, the first application being made on the grounds of human rights, and the second and third applications being made based on a misinterpretation of the Constitution. Of the three applications, one of the employees intended to seek legal recourse through the CCMA. However, the participant explained that, after consultation with these employees, two applications were withdrawn and the employee who initially intended seeking legal recourse abstained.

> *"We gave people an* ***option to apply for exemption*** *and we only received* ***three applications.*** *I have a feeling that many people just decided to ignore it, but that's what happens.* ***Two people withdrew their applications*** *for exemption when we spoke to them about what we were trying to achieve, and* ***one person wanted to take us to the CCMA****, but that never happened. There weren't major issues. There weren't major repercussions … I actually think that there is* [sic] *some mental health conditions that could be used to request exemption … but they would have to be serious, serious mental health issues that justify not forcing someone … The one was,* ***'I know my rights, my rights*** *are my rights', and the other* ***two were misreading of the Constitution****. You know, that to me is interesting; I was* ***expecting more applications for exemption.*** *I was expecting us to have to look at it*

more carefully and think about issues, but it was pretty simple. Far simpler than I thought it would be." (Participant 16: L)

Thus, narratives revealed that acceptable grounds for COVID-19 vaccination exemptions in the workplace would be "serious mental health issues" and a "good medical reason".

"If I remember right, we have a COVID vaccination mandate at the [institution name] *that basically, unless you have a* ***medical condition*** *or you have some good medical reason why not to be vaccinated, you're supposed to be vaccinated to come to work at the* [institution name] *now that we have returned."* (Participant 19: L)

In summary, these findings show that vaccine mandates have the potential to be perceived as coercive or a form of encouragement, which has implications for compliance.

4.5 Conclusion

Chapter Four concludes on the research findings. The next chapter will analyse and discuss these findings. This will entail having a detailed discussion about the perceptions expressed by the participants. Where relevant, existing literature will be incorporated to assist in interpreting these findings.

Chapter Five
Analysis and Discussion of Findings

5.1 Introduction

This chapter discusses the research findings that emerged from the data in Chapter Four. The main purpose of this research dissertation was to explore participants' perceptions on the role of the ethical, human rights, and legal aspects of vaccination and mandatory vaccinations, their perspectives on whether vaccinations should be a personal choice or mandatory, and lastly the participants' experiences of COVID-19 vaccination within the workplace.

The discussion will employ the social constructionist framework as a conceptual model to interpret and analyse the research findings. This is helpful in this study because it considers the participants' multiple lived realities. This model also provides the possibility of multiple interpretations in such a study. The literature will also be used to support or differ from the findings regarding participant responses. The implications of human rights, bioethics, and workplace vaccination mandates will be discussed. The social constructionist framework as a conceptual model to interpret and analyse the research findings provided insight into how perceptions of human rights, ethical considerations, and legal components of vaccination shaped individual and collective vaccination decision-making processes.

5.2 Perceptions of the role of human rights, ethics, and legal aspects of vaccination and mandatory vaccination

The discussion in this section will provide insight into the study's first aim, which was to explore participants' knowledge and understandings of human rights, ethical aspects, and legal components of vaccinations in general and mandatory vaccinations. Human rights refer to freedoms that are inherent to all people (United Nation, 1948). To do this, the participants were asked open-ended questions about their choice to vaccinate and the importance of their bodily choices. Responding to these questions, they alluded to their constitutional rights, certain ethical principles, and South African caselaw. Participants' perceptions about vaccination as it relates to human rights will be presented first, followed by their perspectives on the ethical aspects of

vaccinations. As per the participants' responses, this section will conclude by discussing case law relevant to this particular aim.

The findings of this study showed that, when participants made decisions about their healthcare, and in this instance vaccination, they considered whether their human rights were being infringed. Knowledge of their human rights played a role in their decision to vaccinate, particularly related to constitutional rights. While some participants mentioned the Constitution directly, others alluded to it. Multiple perceptions are evident in the various constitutional rights that they quote, namely, the rights enshrined in the BOR, Section 10 (the right to human dignity), Section 12 (the right to bodily and psychological integrity), Section 15 (freedom of religion, belief, and opinion), Section 16 (the right to freedom of expression), and Section 27 (the right to healthcare). The rights enshrined in the BOR are a particular set of rights because they affirm the human dignity, equality, and freedom of all people in a democratic society (Republic of South Africa, 1996).

These findings concur with a statement released by the Commission for Gender Equality (CGE) which refers to Section 12(2) of the BOR and states that vaccination mandates cannot supersede the Constitution (Commission for Gender Equality, 2022). These findings suggest that some participants construct vaccination as a choice based on the rights enshrined in the BOR. These findings are also supported by the South African Human Rights Commission (SAHRC), which mentioned that, in a constitutional democracy, the foundations are based on equality, freedom, and dignity, and that a person's decision to be vaccinated should be voluntary (SAHRC, 2021). Similarly, Munir and Munir (2023) also discovered that democratic societies tend to prioritise individualism and freedom, which can pose challenges for implementing large-scale vaccine mandates due to the influence of individualistic values on government policies. This finding is substantiated by empirical data collected from 153 countries in their study, which includes South Africa (Munir and Munir, 2023:203).

Some participants constructed realities involving constitutional limitations, which is evident in their responses that not all rights are absolute. These findings align with Section 36 of the BOR, which entrenched limitations that can be placed on individual rights. Another South African study, which examined survey data from the University of Johannesburg and Human Sciences Research

Council (UJ/HSRC) Covid-19 Democracy Survey conducted between April 2020 and January 2021 supports this finding. It observed that Section 36 of the South African Constitution allows for limitations on rights when considered reasonable and justifiable in an open and democratic society.(Bohler-Muller et al. 2021:2). Furthermore, the COVID-19 pandemic was a key example of a situation where preserving human life depended on limiting certain rights. These findings suggest that the government can impose public health measures to protect the greater society. Therefore, in public health emergencies, such as pandemics, measures can be implemented to protect the health and safety of the public, justifying vaccination mandates.

Other participants emphasised that their constructed reality of Section 36 is that all other alternatives should be fully exhausted before mandating vaccination. This finding aligns with Section 36(e) of the BOR, which enshrines that the least restrictive means must be applied to achieve a purpose. This finding raises the question of whether vaccine mandates are the least restrictive means to achieving the health and safety of the public. Saunders (2022) maintains that the least restrictive means before resorting to vaccine mandates entails interventions to educate people about vaccines, portraying vaccination as a civic duty, providing educational messages about vaccination to the public, and nudging people toward vaccination (Saunders, 2022). These findings suggest that there are alternative measures to get people to vaccinate before implementing a vaccine mandate.

The study found multiple perceptions of vaccination as a public and private health matter. Based on the lived realities of these participants, particularly participants who are public health specialists, vaccination is perceived to be a public health matter. Therefore, they felt that limitations should be placed on individual choices because individual choices have the potential to infringe upon the rights of others. This differs from another study that examined the results of surveys carried out in South Africa between February 2020 and March 2021, focusing on the attitudes towards COVID-19 vaccines. That study indicates that vaccination is crucial for individual well-being.(Cooper et al., 2021). These findings suggest a public health paradox (Thiel et al., 2021). This implies that prevention and protection of the individual's personal health is important to the health of the public because it also prevents the spread of the virus to other people.

This raises the question of whether both personal and public health considerations are accounted for in vaccination mandates.

One of the participants, who has a social science background, raised the question concerning abortion and vaccination rights. The South African Choice on Termination of Pregnancy Act 92 of 1996 protects a woman's legal right to access abortion, affirming her reproductive rights and the provision of reproductive health care services, including the choice for termination of pregnancy.(Harries et al., 2014). This implies that this principle is not offered to women for vaccination and raises the question of whether this principle should also apply to women concerning vaccination, given that studies have shown that the COVID-19 vaccine affects the reproductive health of women, particularly concerning their menstruation (Matar et al., 2023). These findings further raise the question of whether both personal health and public health considerations are accounted for in vaccination policies, given that abortion and vaccination both contain elements of personal health.

In response to participants' knowledge and understandings of ethics and vaccination, the findings of this study suggest that, when these participants make decisions about their healthcare, such as vaccination, they also consider ethical implications. This is put forward in their multiple perceptions of the ethical principle they alluded to, namely, bodily autonomy. Ethics refers to moral principles that govern what is morally good and bad and morally right and wrong (Singer, n.d.). While some participants might have mentioned the ethical principle, others' perspectives aligned with it, even though they did not directly name it.

Participants alluded to bodily autonomy because, based on their perceived realities of this principle, it upholds their moral right to autonomous decision-making about bodily choices, which includes vaccination. This finding suggests that participants perceive themselves as individuals of inherent worth and, therefore, can make decisions about their own body, health, and well-being and their healthcare, treatment, and medical interventions. These findings are supported by Dagondon and Lualhati (2021), who maintain that mandatory vaccination is a violation of bodily autonomy, particularly the individual's decision to refuse medical treatment because mandatory vaccination is coercive.

However, some participants constructed bodily autonomy as a principle that can be restricted. This is supported by the philosopher John Mill, who explains that control can be justifiably exercised over any member of society against an individual's will to prevent harm to others (Wilkinson, 2023:394). These findings suggest that bodily autonomy can also be limited in the interest of protecting the greater society. This finding matches with a study conducted by Nienaber and Bailey (2016), which examines the legal aspects of the right to physical integrity as entrenched in the South African Constitution. It also discusses the competence of an adult individual to decline medical treatment under South African law. The research shows that personal autonomy is not automatically sufficient reason for rejecting medical interventions and that limitations on autonomy may be justified when they fulfill a crucial objective.

In response to participants' knowledge and understandings of legal aspects and vaccination, the findings of this study suggest that, when these participants make decisions about their healthcare, such as vaccination, they also consider the legal components in their healthcare decisions. Some of the participants constructed vaccinating as a collective good. The perspectives of participants with legal and public health backgrounds aligned with some South African caselaw; even though they did not directly name it, the *Minister of Health of the Province of the Western Cape v Goliath and Others* (13741/07) [2008] ZAWCHC 41; 2009 (2) SA 248 I (28 July 2008) (2008) was alluded to. Here, people who had a drug-resistant strain of tuberculosis were isolated from society because the government was trying to prevent them from spreading TB to non-TB-infected people. The findings of this case imply that collective rights are subordinate to individual rights in the interest of protecting the health and safety of society. Therefore, a similar discourse should apply in matters that pertain to vaccination.

Generally, participants are aware of their human rights, ethical considerations, and legal components that apply to vaccination and mandatory vaccination. However, not all participants fully understand the limitations that apply to these frameworks. Nevertheless, this is not an uncommon finding. A study by Nienaber and Bailey (2016) highlights that, discussions on the right to physical integrity and the ethical principle of autonomy and when they can be limited remains highly debated. Overall, these findings suggest a human rights and ethical dilemma between

participants' constructed realities that they have constitutional protections that uphold their right to choose in vaccination and the restrictions that can be asserted.

Decision-making processes focusing on individual health	Decision-making processes focusing on collective health
Vaccination as a public health paradox	
Private health decision	Public health decision
The South African Constitution	
BOR Section 7 – right to freedom	BOR Section 36 – the limitation clause which limits individual rights.
BOR Section 10 – right to human dignity	
BOR Section 16 – freedom of expression	
BOR Section 12 – right to bodily integrity	
BOR Section 15 – right to religion	
Ethical considerations	
Ethical principle – bodily autonomy	Ethical principle – the harm principle which limits bodily autonomy

Figure 4: The human rights, ethical, and legal factors that participants consider when deciding whether or not to vaccinate

5.3 Perceptions about whether vaccination should be a personal choice or mandatory

In this study, the question under discussion is whether vaccination should be mandatory or a personal choice. This section is structured as follows: firstly, it indicates in numerical form those who support vaccination as a mandatory or a personal choice along with their various justifications, and it will discuss outliers in terms of the findings. Secondly, trust is discussed, which influences perceptions toward vaccinations and can also be used to understand why these participants hold particular views in determining whether vaccination should be mandatory or a personal choice. As part of the discussion, the differentiation between compulsory and mandatory vaccination is worth noting. A rule is deemed compulsory when there is a justification for using force against an individual and deemed mandatory when a restriction is attached to a decision in the hope that it will coax an individual toward vaccination (Bufacchi, n.d.). This is further supported by Saunders (2022), who explains that mandatory vaccination means that should a person refuse to vaccinate,

they will be denied access to social privileges, while compulsory vaccination means that in the event that an individual refuses vaccination, they will be forced to do so.

Of the 20 participants, six supported mandatory vaccination. Mandatory vaccination is also supported by other studies because it was found that vaccine mandates are compatible with human rights (King et al., 2022). In the current study, support for mandatory vaccination mostly revolved around the participants' constructed realities of vaccination as a greater good. Based on their perceptions, vaccination is a small sacrifice that must be made to protect society's well-being. Some participants constructed vaccination as a safe intervention to eradicate deadly viruses. These perceptions are constructed around the reality that vaccination has eradicated deadly viruses like smallpox and polio. These findings concur with Giubilini (2021), an article that focuses on ethical issues around vaccination behaviour and policies which maintains that vaccines have been a safe and successful intervention in preventing and eradicating infectious diseases.

Two participants were adamant that vaccination should be compulsory. This was an unexpected finding to me because at the time that the interviews took place, I anticipated that the participants would either be in favor of or against vaccination being mandatory or an individual choice. I did not anticipate that participants would see vaccination as obligatory. However, subsequently another study also supports compulsory vaccination because public health safety precedes individual protection (Gibelli et al., 2022). In the current study, some participants had constructed fears about viruses that mutate. A virus mutation occurs when it alters its genetic structure (Pfizer, 2023) and new virus variants emerge. These findings are consistent with Sanyaolu et al. (2020), who maintain that as the novel coronavirus continues to evolve, there are still many limitations to our knowledge of who the virus will impact critically. These findings further suggest that, in instances where a novel virus emerges, vaccination must be compulsory, implying that force must be applied to the public to take a vaccine because it will reduce the spread of the virus and therefore stop the virus from mutating. After all, the effects of the mutable virus on the public's health are unknown and, therefore, could pose a severe threat to their health. When only a small portion of people are vaccinated, the virus could mutate to a point where it is immune to the existing vaccines, making it much more contagious and difficult to contain, resulting in more sick people and the potential for the reoccurrence of a pandemic.

A majority of the participants (9) supported vaccination as a personal choice. In this study, personal choice implies that a person's decision to vaccinate is informed by their freedoms and circumstances (Zolkefli, 2017). In a South African article by Andrew (2021) an interdisciplinary approach that incorporates contributions from the fields of medical science, religion, and ethics found that the decision to vaccinate was also found to be a personal choice. Based on the perceived living realities of these participants, advocacy for personal choice mostly revolved around being able to exercise their freedoms in matters that pertain to healthcare decisions. Other reasons included perceptions of a lack of information about vaccination being disseminated to the public, not enough interventions being explored to educate the public about vaccines and vaccination, not enough information about the risks and benefits of the vaccine being disseminated, and not enough alternatives being provided to people who chose not to vaccinate. These findings are supported by the SAHRC, which stated that the South African government had not done enough to educate people and first implement measures to encourage vaccination before resorting to vaccine mandates (SAHRC, 2021). These findings have implications for making informed decisions about vaccination.

Multiple perceptions are evident in the participants' responses, as some participants construct vaccine mandates as troublesome. Firstly, vaccine mandates create a false dichotomy. A distorted representation emerges that an individual has only one of two options (Yuhas, n.d.): pro-vaccination and anti-vaccination, and because of this, people who are uncertain about vaccinating are more likely to become anti-vaxxers. In a study by Schmelz and Bowles (2022), it was also found that vaccine mandates resulted in more people being unwilling to vaccinate. This was underlined by control aversion, a perception that vaccine mandates dictate individual decisions to vaccinate, resulting in adverse emotional reactions (Rudorf et al., 2018). Secondly, people purchased vaccination certificates because they did not want to vaccinate but felt forced to do so. These findings are similar to a study where it was also found that people purchased fake COVID-19 vaccination certificates worldwide (Georgoulias et al., 2023). These findings refer to human behaviour; when people feel compelled to do something (i.e., vaccinating), they are likely to circumvent the system and resort to illegal activities.

Thirdly, vaccinate mandates would make them feel “uneasy” and “anxious” because they are destabilising by nature. A study conducted in the United States by Stevens et al. (2022) investigated three psychological processes theorised to predict discourse incivility—namely, anxiety, anger, and sadness. The study found prominent negative emotions such as anger and anxiety associated with vaccine mandates. These findings suggest that there are fears associated with vaccine mandates. Lastly, vaccine mandates have implications for the future, that the South African government could use them as a control mechanism to enforce its authority whenever there is opposition from society about any public matter. These findings are consistent with Denu et al. (2022), who found that vaccine mandates could be perceived as a dictatorial approach the government takes that violates individual rights, liberties, and freedom in a free society. These findings also suggest that when there is scepticism about government control, people are more likely to have a desire for more individual control over health-related decisions.

Another unexpected finding was that three participants were undecided as to whether vaccination should be a personal choice or mandatory. This was unexpected to me because at the time of the interviews, I anticipated that the participants would either be in favor of or against vaccination being mandatory or an individual choice. I did not anticipate that participants would be uncertain. These participants construct the topic of vaccination as complex because it raises various ethical questions and requires philosophical discussions. Based on the lived realities of these participants, their perceptions on whether vaccination should be mandatory or a personal choice continuously changed because the COVID-19 pandemic was erratic by nature. They also held perceptions that vaccination is a circumstantial decision because of the varying lived realities of each person. These findings accentuate the complexities of trying to balance promoting public health goals and respecting individual liberty, as suggested by Saunders (2022) and underscores the intricate and varied range of opinions on vaccination, indicating a requirement for additional research and comprehension of diverse perspectives on this matter.

5.3.1 Perceptions of trust in vaccine role players

Perceptions of trust emerged as a complex issue related to vaccination and the various role players involved in developing and distributing the COVID-19 vaccine. Generally, participants raised concerns about the safety of the COVID-19 vaccine because of the accelerated development

period, which contributed to how they perceived the vaccine and, ultimately, their attitude toward vaccine mandates. In another study it was found that the expedited development brought about distrust and doubt regarding the development, clinical trials, and authorisation process of the COVID-19 vaccine, leading to vaccine safety concerns (Machado et al. 2021:3). In their responses, participants also alluded to their childhood experiences of vaccination. It found that these participants trust the traditional routine childhood vaccines more. This is not an uncommon finding. Another study conducted in the US which explored the reasons for parental hesitancy of child and adolescent COVID-19 vaccination found that parents are more reluctant to receive COVID-19 vaccines than scheduled childhood vaccines (Nguyen et al., 2022). These findings suggest mistrust of the COVID-19 vaccine as opposed to traditional routine childhood vaccines. These findings suggest that these participants are accustomed to the standard vaccine development period, which is normally longer than the reduced timeframe in which the COVID-19 vaccine was created. It further suggests that, based on their constructed realities of how long a vaccine should take to be developed, when there are deviations from what is understood to be the norm in standard vaccine development practices, it influences perceptions of trust amongst these participants and creates mistrust in newly developed vaccines.

Despite the safety concerns about the COVID-19 vaccine, these participants generally trusted the science behind the COVID-19 vaccine, as well as the scientists who were responsible for its development. This finding is rooted in the accounts provided by most participants, particularly those who are researchers by occupation and have personal relationships with the scientists who contributed to the creation of the COVID-19 vaccine. These findings suggest that professional relationships with vaccine scientists are a contributor to the multiple constructed realities of these study participants in terms of how they view vaccination development. This finding could not be found in other studies. It also suggests that, if this study was conducted with a different group of people (i.e., with different occupations), the findings on trust in the science and scientists who develop vaccines could possibly be different.

Multiple perceptions of trust and mistrust in the South African government are evident in this study, which is linked to the level of trust or mistrust in the COVID-19 vaccine. Other studies have also shown that the level of trust in the COVID-19 vaccine is linked to people's perceptions of

their government (Bajos et al., 2022). Conflicts of trust and mistrust in the South African government influenced perceptions toward the COVID-19 vaccine and, ultimately, vaccine mandates. Perceptions of trust stemmed from study participants who researched the trust in government during the COVID-19 pandemic and found that the South African public generally trusted the government. However, other participants' constructed mistrust was influenced by prominent public figures like Chief Justice Mogoeng Mogoeng, who is the former Chief Justice presiding over the South African Constitutional Court, who publicly disapproved of the COVID-19 vaccine through remarks of scepticism (Netshapapame, 2023). These findings suggest that the personal opinions of public figures are influential and have the potential to influence the lived realities in matters that concern the health and well-being of the public. This is supported by Netshapapame (2023), a South African article which sought to address conspiracy theories and the use of Bible verses as discourse on vaccine uptake. It was found that the remarks by the former Chief Justice confused the public, which has implications for their perceptions.

Previous articles from South Africa have indicated that the national COVID-19 vaccination rollout plan of the South African government lacked inclusivity for people with disabilities. While frontline health workers, individuals over 60, and those above 18 were prioritised in the strategy (Hart et al., 2022). Persons with disabilities, despite facing higher health risks, were not given priority access to the vaccine (Hart et al., 2022). This finding is supported in the current study, as some participants constructed the national COVID-19 vaccination rollout strategy as excluding to disabled persons, particularly disabled persons who are cared for by caregivers. Through the interaction with their caregivers, these people were more susceptible to contracting COVID-19. These findings suggest that disabled people should have been included as a vulnerable group and prioritised in the national COVID-19 vaccine rollout strategy. They also highlight possible weaknesses in the government's response in dealing with the pandemic crisis.

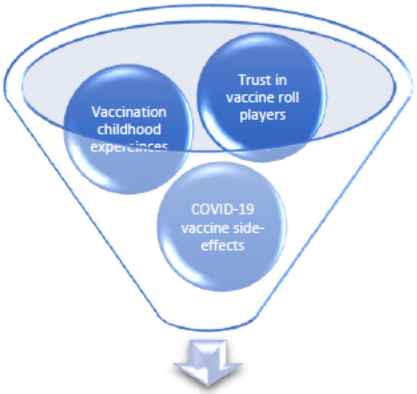
Multiple perceptions of mistrust are evident in the participants' responses concerning pharmaceutical companies because, based on their lived realities, big pharma was motivated by making profits through the distribution of the COVID-19 vaccine rather than the health and well-being of the global community. This is supported by a finding in another study by Borges et al. (2022), who found a trend of grossly unequal global COVID-19 dose distribution by

pharmaceutical companies due to profit-driven actions. The lived reality of vaccine nationalism during the COVID-19 pandemic has resulted in mistrust in pharmaceutical companies. These findings are supported by the speech made by the South African President, Mr. Cyril Ramaphosa at the New Global Financial Pact in June 2023, where he stated: *"We felt like we were beggars when it came to vaccine availability"* (Molyneaux, n.d.). These findings raise concerns about the possible re-occurrence of vaccine nationalism should another pandemic occur.

Overall, these findings suggest that the multiple lived realities of these participants have contributed toward trust or mistrust in the various COVID-19 vaccine role players, which has implications for how the participants perceive the COVID-19 vaccine and, ultimately vaccine mandates. The significance of these findings mostly pertains to future pandemic preparedness and crisis control because we see that trust is important for effective crisis response in instances of pandemics. People are more likely to follow recommendations and engage in vaccination efforts when they trust the competence and integrity of vaccine role players.

This study found that participants who were vaccinated experienced various side effects like fever, body aches, headaches, and nausea. These side effects were consistent with the findings of Riad et al. (2021), who maintain that these side effects are commonly reported. However, concerns were raised about the long-term side effects in males and the effects on the reproductive health in females. Wong et al. (2022:2191) found a higher risk of myocarditis and pericarditis after COVID-19 mRNA vaccination, particularly in young men. In an article by Hosseini and Askari (2023), a comprehensive review of documents reporting neurological side effects of COVID-19 vaccines from international databases during the period 2020 to 2022 were reviewed and neurological disorders possibly caused by vaccination were discussed. Authors Hosseini and Askari (2023:3) indicate that women have the highest incidence of neurological complications due to a strong immune response against foreign antigens, potentially leading to autoimmune disorders through self-antigen targeting. The South African Commission for Gender Equality released a statement on imposing mandatory COVID-19 vaccination, noting that a study was being done on the effects of menstrual cycle changes in women due to vaccination; they cautioned places of employment and higher education not to impose harsh sanctions on women who are reluctant to vaccinate (CGE, 2022).

These findings suggest that, although none of these participants reported experiences of uncommon side effects from the COVID-19 vaccine, the long-term side effects of the vaccine are an equal concern for both males and females. The 'get vaccinated or get fired approach', while long-term studies are still ongoing, raises ethical concerns about the uncertainty of the unforeseen effects of the vaccine and forces people to vaccinate without a complete understanding of potential long-term consequences. Figure 5 below illustrates the factors that influence perceptions of trust,



Main Arguments	Category
Collective rights supersede individual rights.	**Mandatory (restricted access)**
Eradication of previous viruses.	
The implications of unknown risks of viruses that mutate.	**Compulsory (forced vaccination)**
Individual rights and freedoms are paramount.	**Personal choice**
No information about the COVID-19 virus.	
No information about the risks and benefits of vaccination.	
No alternative measures have been provided.	
Fears surrounding vaccine mandates.	
The matter is too complex to decide.	**Uncertain**
Ethical considerations and philosophical discussions are required.	
The erratic nature of pandemics.	

which has implications for the main arguments raised as to whether vaccination should be mandatory, compulsory, a personal choice, or by those who are uncertain.

Figure 5: Factors that influence whether vaccination should be mandatory, compulsory, a personal choice, or participants are uncertain

5.4 COVID-19 vaccine experiences in the workplace

This section of the discussion relates to the third theme of the study, which is to explore participants' COVID-19 vaccine experiences within their workplace. As a result of the COVID-19 pandemic, employers worldwide faced the difficult decision of whether to mandate COVID-19 vaccination within the workplace (Phillips, 2021). Likewise, the participants in the current study explained that their employer put a mandatory COVID-19 vaccination policy into practice as part of its obligatory role to maintain a safe working environment. In this regard, their employer complied with the COVID-19 directive that was promulgated by the South African government, namely the amended COVID-19 Consolidated Direction on Occupational Health and Safety Measures in Certain Workplaces (Department of Employment and Labour, 2021) (herein referred to as the COVID-19 OHS directive). Jeebhay et al. (2023) conducted a study that detailed the COVID-19 strategy implemented in South Africa. This strategy aimed to prioritise worker health, sustain economic activity, protect livelihoods, and bolster healthcare services. Data obtained from various surveillance systems and government databases revealed that the severity of the pandemic prompted an immediate need for a national occupational health and safety policy in the country, as well as specific responses within work environments to ensure employee protection and welfare preservation.

The lived realities of participants revealed that they were required to present a COVID-19 vaccine certificate or a negative polymerase chain reaction (PCR) test within three to five days of taking the test at their workplace. This finding is similar to the experiences of other workers in a research study carried out in Germany by Wanger and Weber (2023). The study sought to explore the impact of mandatory COVID-19 testing at work on employees' behavior, specifically whether it resulted in them circumventing the requirement to provide COVID-19 certificates by taking sick leave. This trend emerged as numerous countries introduced mandates in 2021 for employees to validate their COVID-19 status while at work.

The COVID-19 vaccine mandate made some participants feel coerced into vaccination by their employer. None of the participants reported dismissals for non-compliance with workplace vaccine mandates; however, they did report their fears of possible dismissal for not complying with the

instruction given by their employer to vaccinate. This stemmed from their reported experiences of not wanting to vaccinate but that their choice in the matter was taken away from them by their employer through the implementation of the mandate. They had to vaccinate, based on their constructed realities, because they feared losing their jobs. These findings resonate with a statement made by the South African Department of Health (2021):

> *"Despite the several messages by President Ramaphosa in national media that no one will be forced to take the* [COVID-19] *vaccine, it can be seen from the legal situation outlined ... that if life and livelihoods are to be preserved, people will feel pressurized into vaccination. Hence it can be argued that proof of COVID-19 vaccination may become covertly, if not overtly, mandatory in the workplace, as not taking the vaccine could result in job loss or other punitive measures."*

These findings are consistent with Berkman et al. (2022), who found that unvaccinated employees felt pressure (implicit or explicit) from peers or employers to get vaccinated to achieve herd immunity goals within the workplace. Bell et al. (2022) also pointed out that employees felt vaccination was not presented as a choice in the workplace, and that employees mostly felt the pressure to vaccinate. Additionally, Blahut et al. (2023) found that employees felt they had to be vaccinated to keep their jobs or preserve them. These findings suggest that, contrary to popular belief that vaccine mandates present an option to decline vaccination, COVID-19 vaccine policies limit an individual's choice, violate an individual's choice of informed consent or informed refusal, and are coercive (Bardosh et al., 2022). They also suggest that there was a 'get-vaccinated-or-get-fired' approach in the manner in which vaccine mandates were being implemented. In another study by (Olick et al., 2021), also found that employers' 'get-vaccinated-or-get-fired' approach was the most effective approach to getting employees vaccinated within the workplace. However, participants' lived realities of vaccination mandates in the workplace also resulted in perceptions of feeling encouraged to vaccinate. These perceptions stemmed from their lived realities of on-site vaccination clinics that their employer arranged to make vaccines accessible to staff. These results support the research by Berkman et al. (2022) who examined the ethical considerations of promoting COVID-19 vaccination among employees. Their study revealed that numerous employers adopted strategies to promote employee vaccination in order to raise vaccination rates within the organisation, which could be considered ethically justifiable.

Vaccine mandates also brought about challenges in the workplace. Some participants perceived that their employer was hesitant to implement the vaccine mandate because it was introduced much later than other institutions. This finding is supported by a study by Berkman et al. (2022), who reported that some employers were reluctant to implement the mandatory COVID-19 vaccination policy because they were unsure about its ethical ramifications. As a result, some participants constructed the mandate as one that lacked awareness and operational direction. In addition to the perceived challenges were applications for vaccine exemptions in the workplace. Three vaccine exemption applications were made, of which one application was based on constitutional grounds and the other two were reported to have been based on a misreading of the Constitution. One of the employees attempted to take the institution to the CCMA, but after discussions with these employees, all applications were withdrawn. Although these requests were retracted, numerous appeals from South African workers were submitted to the CCMA. For instance, i) *Mulderij v Goldrush Group* (GAJB24054-21) ZACCMA, ii) *Gideon J Kok v Ndaka Security and Services* FSWK2448-21, and iii) *Dale Dreyden v Duncan Korabie Attorneys* WECT13114-21. Employees from these cases appealed to the CCMA because they believed that they had been unfairly dismissed for non-compliance with the employers COVID-19 mandatory vaccination workplace policy. However, in each of these instances, the CCMA commissioner ruled in favor of the employer. These findings suggest that a 'one-size-fits-all' approach is not suitable in the workplace because it does not account for individual circumstances. This finding resonates with Haug et al. (2020), a study which assessed the effectiveness of non-pharmaceutical interventions to mitigate the spread of COVID-19 to inform future preparedness response plans in 79 territories worldwide. In addition, the Gideon case, where the CCMA Commissioner mentioned that there will be instances when employees have substantial justification for vaccination non-compliance. In those instances, alternative options must be presented to them.

Using the social constructionist framework as a conceptual model to understand healthcare decision-making helps to understand the broader social factors that shape people's perceptions and choices concerning vaccination.

5.5 Conclusion

This chapter has expounded upon the research findings presented in Chapter Four. It analyses and interprets the study findings through the social constructionist lens presented. This chapter has also incorporated supporting literature to substantiate and elaborate on key discussion points. It considers the diverse lived realities of the participants. The next chapter will present the conclusions and recommendations.

Chapter Six
Conclusion and Recommendations

6.1 Introduction

This study explored the knowledge and understandings of immunisation and vaccinations of staff members in a South African research institution. This chapter first provides an overview of each individual chapter. It also includes an outline of the study's limitations to enhance the quality of the research findings. Following this, the study offers detailed recommendations aimed at public health policymakers, employers, and for guiding future research efforts. The chapter concludes by offering additional concluding remarks to summarise all key points effectively.

6.2 Summary of the chapters

This dissertation is comprised of six chapters. Chapter One focuses on the overview of the dissertation. This includes the study introduction and rationale, the study's primary aims, and the appropriate methodology informed by the chosen theoretical framework. Chapter Two reviews existing literature focusing on the history, background, and international developments concerning vaccination. Chapter Three presents an overview of the study, employing a qualitative research design and purpose sampling approach using primary data. This chapter also presents a brief account of the researcher's reflexivity. The ethical measures employed to ensure reliability, transferability, validity, and rigour throughout the study are also presented. In Chapter Four, the main finding's key themes and sub-themes were presented. Chapter Five presents an analysis of the research findings. The conceptual model, namely, the social constructionist framework is used to interpret how participants have constructed their realities as they relate to vaccination and the reasoning behind their responses. Chapter Six, as the final chapter, draws conclusions corresponding to the main study aims, the study limitations, and goes on to conclude with recommendations for future pandemic preparedness.

6.3 Study limitations

Study limitations are weaknesses found within the research design that could potentially affect the results of the findings (Ross, 2019). With a study sample of only 20 participants from different provinces, the findings cannot be generalised to the wider population and must be interpreted with

caution. The study sample consists of people who are researchers and staff who work for a research institution. This meant that many of the responses were informed by the research already conducted by the institution or by researchers who have researched a similar phenomenon. This could strengthen the results of this study but also imply that, if the study was conducted on a different group from a different background, the results may differ. Lastly, the data collection for this study started in May 2023 after COVID-19 was no longer considered a public health emergency of international concern. The responses captured in this study are mostly post-COVID-19 perspectives, which may have been different if the study had been conducted much earlier; however, it provides a clearer perspective in hindsight, when people are less fearful of the COVID-19 pandemic. Qualitative research methods offer valuable insights into human behavior but come with limitations. These include subjectivity, time-intensive processes, potential biases, difficulty in establishing causality and ensuring trustworthiness (Lincoln et al.,1985). To ensure that the limitations of qualitative methods were not fatal to the study, I employed strategies such as reflexivity (reflecting on my own perspectives and biases), rich description (providing detailed descriptions of the phenomena studied) check-ins with my supervisors for reviews and triangulating study findings with empirical literature. These approaches enhanced the credibility, transparency, and potential transferability of the research findings.

6.4 Recommendations for future pandemic preparedness

6.4.1 For public health policymakers

6.4.1.1 Incorporating public perceptions into public health responses

Based on the previous chapter, this study found that there is a need to incorporate public perceptions into vaccine policy. Therefore, this study recommends integrating social sciences to better inform public health responses, such as government directives, laws, policies, and vaccination rollout programmes. In a democratic society, the principal feature in how the state is governed is based on power conferred on the governmental authority by the public to act on behalf of those who vote those elected representatives into positions of power. According to Munir and Munir (2023) democratic societies tend to prioritise individualism and personal freedoms. Therefore, people who live in a democratic society should be involved in the decision-making processes with public health authorities in shaping public health responses to disease outbreaks, such as COVID-19, which led to a vaccination rollout. This study found that, when people decide

to vaccinate, there are numerous factors they consider in their decision to vaccinate or not, and that value is placed on having a choice. Although they support vaccination as an effective public health intervention, there is a lack of support for vaccine mandates. Understanding public perception provides insight into how people perceive vaccination and vaccine mandates, which is a social issue requiring attention.

As suggested above, this study considers it important to integrate social sciences to better inform public health responses, such as government directives, laws, policies, and vaccination rollout programmes. By doing so, legal experts, social scientists, ethicists, and policymakers can collectively and proactively address common social and public health concerns surrounding vaccination and mandates and seek to discover solutions that are informed by public perceptions. Through routine assessments of the impact of vaccine mandates on civil liberties, policies that govern vaccination can be continuously amended and tailored to the needs of society.

6.5.1.2 Addressing fears about vaccine mandates

The study recommends a more inclusive widespread public debate to inform vaccination mandates. According to (Bardosh et al., 2022) COVID-19 has highlighted the debate between individual autonomy and collective rights in vaccination rollouts during a pandemic. The South African Constitution, Chapter 2, Section 12 states that everyone has the right to bodily and psychological integrity, including control over their body. This makes the issue controversial in terms of personal choice and mandatory vaccinations. A public debate should be considered to address the balancing of individual and collective rights. Diverse viewpoints should be considered about how these rights apply during and outside times of crisis, to what extent governments should hold power, and their limitations. Additionally, a debate should consider whether the public is in support of vaccine mandates and strategies to develop public health policies during times of crisis. Public debates can also be used to educate the public about vaccines and vaccination, rights, and ethical considerations in public health matters. Constitutional rights can also be extensively examined and debated within the context of vaccination. Factoring in ethical and human rights can resolve the issue of individual versus collective rights, result in policies that are respectful of human rights for all, and uphold the principle of informed consent, which is important in ensuring that the risks and benefits of

vaccination are well understood, and that accessible information is made available about the safety and efficacy of vaccination.

Respect for individual autonomy should be upheld in healthcare decision-making, considering that the people who make decisions about their own health are in the best position to make such decisions. It is important to appraise success stories of infectious diseases that have been eradicated or successfully controlled through global vaccination efforts and the positive outcomes of these efforts; these diseases include smallpox, rinderpest, HBV, and polio. There should be a commitment to amend vaccination mandates following evolving scientific evidence and the needs of the public at various stages of a disease outbreak. It would be important to dispel fears by informing the public that vaccine mandates are made with flexibility and responsiveness to changing circumstances. The public must be reassured that vaccine mandates are only temporary measures aimed at controlling disease outbreaks and plans should be laid out for reassessing and lifting mandates as conditions improve. Through non-coercive measures, people are more likely to feel empowered to make decisions that align with their individual values.

6.5.1.3 Building perceptions of trust in vaccine role players

Based on the previous chapter, this study found that there is a need to build public trust in vaccine roll players. This study recommends numerous ways to strengthen perceptions of trust amongst vaccine role players, particularly the South African government and pharmaceutical companies. Building trust in vaccine role players is essential to the success of public health initiatives and global efforts to control the spread of infectious diseases. This has also been recommended in another study by Katoto et al., (2022). The current study found conflicting perceptions of trust in the South African government and pharmaceutical companies. The study recommends that government should: i) provide clear and transparent information about the development of vaccines and their approval processes; ii) openly disclose information about the safety, efficacy, and side effects of the vaccine; iii) actively monitor and pay attention to the concerns of the public about vaccines and vaccination through public engagement platforms that allow people to openly discuss their concerns and receive accurate vaccination information; iv) foster a national culture of accountability by continuously conducting follow-ups on the regulatory processes implemented during pandemics, to address and rectify occasions of misinformation spread by the public and any

occurrences of perceived unethical behaviour from government officials. The government should, furthermore, make a commitment to follow scientific information and rigorous regulatory processes and use this opportunity to inform the public about the exceptional expertise within the scientific community involved in vaccine development and approval.

Recommendations to pharmaceutical companies to promote perceptions of trust entail being transparent about the vaccine distribution processes. This includes: i) honest communication about vaccine distribution plans, countries that are classified as a high priority, and the logistics of vaccine distribution; ii) openly declaring collaborations with stakeholders, including governments; ii) making a commitment to equitable vaccine distribution and to addressing inequalities among different countries, through close collaboration with governments and international organisations to ensure equitable vaccine distribution for all; iii) committing to adherence to regulatory approvals and compliance with global health standards, as well as collaborating with international organisations by actively getting involved in initiatives to improve the distribution of vaccines worldwide; iv) cultivating a culture of corporate accountability by sharing information about the challenges in the development of the vaccine and global distribution processes, as well as corrective actions taken or plans to respond to unforeseen circumstances.

6.4.2 For employers

6.4.2.1 Policies that consider individual circumstances

From the previous chapter, this study found that individual circumstances are not accounted for in vaccine mandates. The study recommends workplace vaccination policies that cater for individual circumstances. This has also been recommended in another study by Bardosh et al., (2022). During the COVID-19 pandemic, citizens, particularly employees, felt excluded from decisions about their healthcare, which has implications for how democracy works. The ways in which vaccine mandates were implemented in the workplace were perceived as authoritarian and lacked empathy for individual circumstances. Employees felt disrespected and violated. Future approaches should factor in individual circumstances that demonstrate shared values and an understanding of individual challenges. Employers should consider that the “comply or else” approach without addressing employee concerns could result in employee resistance and pushback. Although the 2021 COVID-19 OHS directive made provisions for vaccination exemptions, such as on medical

and constitutional grounds, it appears that in practice these were not properly executed, as employees were dismissed or feared being dismissed, resulting in coerced vaccination. Employers should consider that an inflexible approach during pandemics, which by nature are erratic, may not adapt well to evolving requirements or public health recommendations.

6.4.3 Future research for researchers

6.4.3.1 People with disabilities

As presented in the previous chapter, this study found that the South African government has not been disability inclusive in the vaccine roll-out strategy. The study recommends disability inclusivity in pandemic preparedness strategies. This has also been recommended by (Hart et al., 2022) as an area that requires further research for pandemic preparedness. If not mindful, policies have the potential to become discriminatory; therefore, they should not be applied disproportionately across society. It is essential to ensure that vulnerable populations are not unfairly treated and that access to healthcare and other essential services is maintained for everyone.

6.5.3.2 The reproductive health of women

Lastly, this study found that there were concerns among females about their reproductive health and vaccination. The study recommends further research on the impact of vaccination on the reproductive health of women. In addition, that education and awareness programmes about vaccines and their potential impact on the reproductive health of women are necessary to dismiss misinformation and make women feel more confident in their decision to vaccinate. During routine reproductive healthcare check-ups, obstetricians and gynecologists could educate women on the impact of vaccination on their fertility and provide guidance as to when would be the most suitable time to receive a vaccine that is dependent on the unique reproductive health and individual circumstances of each woman. As supported by the SAHRC (2021) women in the workplace and educational settings should be accommodated by supporting those who choose not to be vaccinated because they have legitimate concerns about the safety of the vaccine for their reproductive health. Women should be included in vaccine clinical trials and long-term research should be conducted on the impact of vaccines on a women's reproductive health, by monitoring the possible effects on

fertility and reproductive outcomes, and openly and transparently sharing this information with the public.

6.5 Concluding arguments

This study has considered whether vaccination should be personal choice or mandatory. The study found that vaccination as mandatory or a personal choice is a topic that evokes various perceptions and discussions. There is evidence to show that there are diverse perspectives about vaccination as mandatory, compulsory, or a personal choice, while some participants were undecided, with various arguments put forward to support the different viewpoints. The results of this study show that, of a total of twenty participants, a majority supported vaccination as a personal choice, although the participants were in support of vaccination. A minority advocated for mandatory vaccination, while three were undecided. However, to better understand the implications of these results, future studies could enrich the results of this study.

Arguments made for mandatory vaccination were justified by the notion of collective rights. The health and safety of the public must take precedence over individuals' rights and freedoms. Members of society have a responsibility to subscribe to the health and well-being of the public, and getting vaccinated upholds this responsibility to protect themselves and their community. Limitations that can be placed on individual freedoms were perceived to be justifiable when considering the potential harm that an infectious virus poses to the health and safety of the public.

The main arguments put forward for compulsory vaccination also emphasised the well-being of society. Viruses have the potential to change their genetic form, resulting in newly formed variants; this has implications for the effectiveness of developed vaccines and the health and safety of the public. This is particularly risky because, when a virus mutates, the immunity that was provided to a person by having been previously infected or by a vaccine could potentially become less effective against newly developed variants. This means that people would still be at risk of infection and with a new strain, the virus could potentially be more harmful.

Arguments were also made for individual freedoms and choices such as bodily integrity, freedom of expression, and human dignity as fundamental rights that should be upheld. Bodily autonomy

is a critical ethical principle that allows an individual to make independent decisions about their body, particularly vaccination. Therefore, vaccine mandates violate these rights and ethical frameworks. Additionally, people have the right to make choices based on their perceived risks and benefits of vaccination, because people can make rational decisions about their health when they are properly informed. However, public health authorities failed to provide accurate information about vaccines, vaccination, and the potential risks and benefits in order to ensure informed and voluntary consent. The right to medical freedom should be upheld because individual circumstances vary, and personal freedoms allow people to tailor-make decisions based on their individual needs. Furthermore, vaccination alternatives or additional measures to build up immunity against the COVID-19 virus had not been provided by healthcare authorities before imposing vaccine mandates, which is a constitutional requirement.

Fears about the possible implications of vaccine mandates were raised. Mandates intrude on the personal lives of the public and they could be used by the government to exercise excessive authority because they set an 'unhealthy' precedent. Additionally, during public health crises, governments may impose mandates in response to the health crises; however, there are fears that the government could go beyond its emergency powers, which has implications for human rights and long-term abuses of power. Furthermore, mandates contribute to the vaccination division between people who are pro-vaccination and anti-vaccination, therefore creating a polarized environment.

Perceptions of trust toward vaccine role players also influenced decisions as to whether vaccinations should be mandatory, compulsory, or a personal choice. Perceptions toward public health authorities are important because they have an impact on whether people are willing to follow public health guidelines and vaccination recommendations. Perceptions are essential in deciding how people interpret or regard the various role players who are responsible for the development, regulation, and administration of the COVID-19 vaccine and, in some instances, vaccines in general. Overall, the accelerated development of the COVID-19 vaccine was a concern for a majority of the staff. Trust was mostly found in traditional routine childhood vaccines compared to the COVID-19 vaccine.

Additionally, the science and the scientists who were responsible for the development of the COVID-19 vaccine were trusted, which stemmed from having personal relationships with some of the scientists who created the COVID-19 vaccine because this is a group of researchers and staff who work for a research institution. However, mistrust was found in pharmaceutical companies because their interests were perceived to be profit-driven rather than influenced by public well-being. There was a discord of trust and mistrust in the South African government. Through their studies, some of the participants found that there was trust among the public in the South African government during the COVID-19 pandemic, which influenced their perceptions of trust. However, mistrust stemmed from public figures who openly condemned the COVID-19 vaccine, namely, former Chief Justice Mogoeng Mogoeng; furthermore, the polarisation among government officials during the COVID-19 pandemic stimulated mistrust in the government and therefore influenced perceptions toward vaccine mandates.

The study showed some uncertainty in decisions to vaccinate due to the complexities of trying to navigate protecting individual freedoms and ensuring the health and well-being of the public. Ethical considerations and philosophical discussions should play a vital role in the arguments raised. Based on the results, the decision of whether vaccination should be a personal choice or mandatory is complex and requires concerted efforts by public health authorities to understand what factors influence people's decisions about vaccination. Balancing the preservation of public health with the acknowledgment of individual rights presents a multifaceted challenge that demands the consideration of policymakers.

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Appendices

Appendix A: Invitation to participant in the study

An invitation to participate in a Research Study

My Name is Marilyn Couch, and I am a Research Ethics Intern at the HSRC. I am currently completing my master's degree in Social Sciences (health research ethics) at the University of KwaZulu-Natal in collaboration with the South African Research Ethics Training Initiative (SARETI).

You are invited to participate in my research study, which aims to understand people's perceptions and experiences about vaccination being mandatory or a personal choice. This study focuses on both vaccines in general and COVID-19 vaccines and explores the ethical, human rights, and legal issues pertaining to vaccination.

May you kindly respond within seven (7) days of receiving this email? Should you accept to participate in this study, may you kindly indicate a suitable date for an interview in March 2023?

Kindly find attached the information sheet.

Thank you.

Marilyn Couch

Appendix B: Information sheet

Information Sheet

Hello!

My name is Marilyn Couch from the University of KwaZulu-Natal University (UKZN), Pietermaritzburg campus. I am conducting this research to complete my Masters' degree in Social Sciences (Health Research Ethics). My contact details are +27 72328 7566 and email: marilyncouch12@gmil.com

You are being invited to consider participating in a study that involves ethics, human rights, and legal aspects of Covid19 vaccines and vaccines in general. The aim of this research is to understand three things:

1. to understand how employed individuals feel about Covid-19 vaccines and vaccines in general;
2. to understand employed individuals' perspectives on mandatory vaccination; and
3. to understand employed individuals' experiences of mandatory Covid-19 vaccination (if any) within the workplace.

The study is expected to enroll 20 Human Sciences Research Council (HSRC) staffs as research participants. There are four (4) sites that have been selected such as Durban, Pietermaritzburg, Pretoria, and Cape Town, and five (5) participants will be asked to participate in the study from each site. Durban and Pietermaritzburg sites will be face-to-face interviews and Pretoria and Cape Town will be virtual (teams). The duration of your participation, if you choose to enroll and remain in the study, is expected to be 45-60 minutes. The study is funded by the South African Research Ethics Training Initiative (SARETI).

Risks and Benefits

The Covid19 pandemic has affected the lives of people, and some of these questions may be sensitive to discuss. You may choose not to respond to questions that are sensitive. We hope that the study will create the following benefits: inform policymakers about mandatory vaccination policies. This study will provide no direct benefits to participants.

This study has been ethically reviewed and approved by the UKZN Biomedical Research Ethics Committee (approval number BREC/00005043/2022).

In the event of any problems or concerns/questions you may contact the researcher or the UKZN Biomedical Research Ethics Committee, contact details are as follows:

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus, Govan Mbeki Building

Private Bag X 54001 Durban 4000, KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2602486 - Fax: 27 31 2604609

Email: BREC@ukzn.ac.za

Participation in this research is voluntary and you may withdraw your participation at any point. In the event of refusal/withdrawal of participation, you will not incur a penalty or loss of treatment, or other benefits. There are no reimbursements or incentives for participating in this study.

All information will be kept in a locked cabinet and password-protected computer. My supervisors will have access to the information provided. We will try to the best of our ability to maintain the confidentiality of all information provided. The Research Institution (HSRC) that you work for will not have access to any information provided.

Appendix D: Informed consent

Consent to Participate in a Research Study

DECLARATION OF CONSENT

I, Name: _____(optional) have been informed about the study entitled 'An Exploratory study of vaccinations amongst staff at a Research Institution: Personal choice or Mandatory?' by Marilyn Couch.

I understand the purpose and procedures of the study to participate in an interview.

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any treatment or care to that I would usually be entitled.

I agree to be audio recorded during the interview.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at (+27) 72 328 7566.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus, Govan Mbeki Building

Private Bag X 54001 Durban 4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2602486 - Fax: 27 31 2604609

Email: BREC@ukzn.ac.za

_____ _____

Signature of Participant **Date**

Appendix C: Interview guide

Interview Guide

Thank you for taking the time to do this interview with me. For this interview, we want to gain insight into ethics, human rights, and legal aspects of Covid-19 vaccines and vaccines in general. Remember there are no wrong or right answers. This is just for us to understand your feelings, perceptions and experiences about Covid19 vaccines and vaccines in general, so please be comfortable disclosing your views. A reminder that anything you say will remain confidential and your name will not be recorded in any reports or publications.

Participants' feelings about Covid19 vaccines and vaccines in general

1. What is your understanding of a vaccine?

Probe: where did you receive this information?

2. What makes you feel safe/ unsafe about the **Covid-19** vaccine?

Probe: why?
Probe: what experiences can you share?

3. **In general**, is there anything that you feel you like/dislike about vaccines?

Probe: why?
Probe: what experiences can you share?

What are participants' perspectives on the previous mandatory covid19 process and vaccines in general

1. What are your views on the **Covid-19** vaccines being mandatory for everyone?

Probe: what do you think is good about this?
Probe: what do you think is bad about this?
Probe: what experiences can you share?
Probe: how does this make you feel?

2. What are your thoughts on vaccines **in general** being mandatory for everyone?

Probe: why is this important/ not important?
Probe: do you think there should be consequences for people who refuse to be vaccinated?
Probe: what kinds of consequences?

3. **In general**, what are your thoughts on vaccines being a personal choice for everyone?

Probe: why do you say this?
Probe: do you think a person should have a choice to refuse/accept a vaccine?
Probe: why do you think this is important/ not important?
Probe: what experiences can you share with regards to refusal/ acceptance of a vaccine in your personal life?

4. Do you think it is important for you to have a choice in what happens to your body?

Probe: Why do you think this is important?
Probe: Why do you think this is not important?
Probe: Have you ever felt like you did/didn't have a choice?

Probe: Please share an experience
Probe: how does this make you feel?

5. In instances of a pandemic, do you think vaccines should be a mandatory or personal choice?

Probe: why do you think this?
Probe: is there a difference during a pandemic with regard to choosing?
Probe: why is this important/not important?

6. Has the pandemic changed your views on personal choice?

Probe: what is the difference?
Probe: how does this make you feel about the future?

7. Has the pandemic changed your views on vaccines?

Probe: what is the difference?
Probe: how does this make you feel about the future?

Participants' experiences of mandatory covid-19 vaccination in the workplace

1. How do you think your organisation feels about COVID-19 vaccines?

Probe: Please share an experience
Probe: how does this make you feel?

2. What have been some of the challenges that you are aware of that have emerged in relation to these vaccines?

Probe: Please share an experience

3. How do you think your organisation feels about mandatory vaccinations?

Probe: Please share an experience
Probe: How this make you feel?
Probe: How did you respond?

4. Has anyone at your organisation spoken to you about this?

Probe: What did they say?
Probe: How did this make you feel?
Probe: How did you respond to this?

5. How do you think others in your organisation feel about these issues?

Probe: Please share an experience

6. If you could recommend anything specific related to COVID-19 vaccination in your workplace, what would this be?

Probe: why do you think this is important?

We have come to end of the interview.

1. How do you feel about the questions I asked you?
2. Were any of the questions difficult to answer? Which ones?
3. How are you feeling now that the interview is over?
4. Do you have any questions for me?