UNIVERSITY OF KWAZULU-NATAL

Impact of the coronavirus pandemic on the leadership styles of rehabilitation therapists in South Africa

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A dissertation submitted in partial fulfilment of the requirements of the degree Master of Business Administration

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DECLARATION

I Noluthando Leroto Tshabalala, declare that:

(i)The research reported in this discussion, except where otherwise indicated, is my original work.

(ii) This dissertation has not been submitted for any degree or examination at any other university.

(iii) This dissertation does not contain other persons data, pictures, graphs, or other information, unless specifically acknowledged as being sourced from other persons.

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(a)Their words have been rewritten but the general information attributed to them has been referenced; and

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Name: Noluthando Leroto Tshabalala

ACKNOWLEDGEMENTS

All honour and reverence are due to the-Lord Jesus Christ, my Saviour and my Sovereign God! I express my gratitude to Jesus for the courage and perseverance He has bestowed upon me. I extend my gratitude to the following people who have provided unwavering support, affection, and fortitude:

- I extend my gratitude to my supervisor, Professor Cecile Gerwel Proches, and co-supervisor Professor Bibi Zaheenah Chummun. I am thankful for the invaluable advice, direction, support, encouragement and understanding. You are both phenomenal supervisors.
- To my late father, Victor Vukile Mzulwini, thank you for cultivating a spirit of unwavering ambition and brilliance in your little girl. Baba, I made it.
- My steadfast supporter, my beloved Nkanyiso Zulu, I am incredibly grateful to you, sithandwa sami. I appreciate your unwavering support. I appreciate your great assistance during my academic pursuits.
- To my mothers, family and friends, I am grateful for the prayers, words of encouragement and support. I am forever grateful to the Lord for every one of you.
- Daisy, Ndoda, and Xola, my group members, it has been an absolute pleasure to collaborate with you. I am grateful.
- I am grateful to my colleagues at work, who provided support and to those who voluntarily participated in my research study. I will be eternally appreciative.

ABSTRACT

The coronavirus pandemic had a significant effect on the world's healthcare systems, particularly the rehabilitation therapy industry. This study focused on the COVID-19 pandemic and its impact on South African rehabilitation therapist's leadership styles. The study employed a quantitative research methodology, using questionnaires, to investigate shifts in leadership styles and behaviours throughout the pandemic. The results showed that, in response to the challenges posed by the pandemic, there had been a significant shift in leadership styles, marked by a greater emphasis on the utilization of a combination of leadership styles. Rehabilitation therapists had to adapt their leadership styles as the pandemic required quick changes in the way services were provided, including the implementation of telehealth and updated patient care guidelines. This study emphasized the importance of adaptability and utilising various leadership styles based on the circumstances, due to a crisis. The study provided insightful information for future crisis management and leadership development and highlighted the significance of resilience and adaptability in leadership within the rehabilitation industry. This study provided practical recommendations for enhancing leadership practices and preparing for future challenges in rehabilitation therapy.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

The extremely infectious coronavirus disease, which causes severe acute respiratory syndrome, is thought to have originated from the SARS-CoV-2 virus (Albarracin et al., 2024; World Health Organisation, 2020a). Over six million people have died because of COVID-19's devastating effects on the planet. In Wuhan, China, at the end of December 2019, the first reports of SARS-CoV-2, a virus primarily affecting the respiratory system, were received (Hozhabri et al., 2020; World Health Organisation, 2020a).

The disease spread rapidly across the entire world. The novel coronavirus, which emerged in Wuhan, China, was officially identified as SARS-CoV-2 in December 2019 following a notification from the Chinese government to the World Health Organisation regarding an epidemic caused by this new strain of coronavirus (Scripps Research Institute, 2020; Sharma et al., 2020). The virus is presently associated with the disease COVID-19. Significant differences have been observed in the intensity of symptoms associated with the well-known coronaviruses (Scripps Research Institute, 2020; Hozhabri et al., 2020; Sharma et al., 2020).

The virus manifested symptoms in any individual exposed within a two-day timeframe. The symptoms observed consist of headaches, fever, and coughing. Besides the surfaces that an infected individual may touch, actions such as coughing, talking, or sneezing could expel droplets that transmit the virus between individuals (Hozhabri et al., 2020). The World Health Organisation declared it a global pandemic on 11 March 2020 (Hozhabri et al., 2020; Sharma et al., 2020; World Health Organisation, 2020a).

As stated by Broadbent et al. (2020), on March 5th, South Africa documented the first coronavirus disease occurrence. A complete lockdown was implemented on March 27th, preventing people from leaving the house for essential activities, including exercise, and only allowing a restricted list of vital tasks (Lurie et al., 2021). This effectively shut down most economic activity (Broadbent et al., 2020; Lurie et al., 2021; Pittaway, 2021). Initially, the restrictions were mild and prohibited going out to eat, travelling, and engaging in tourism.

The response was then categorised into five levels, with five being the most severe. There were changes to levels four, three, two, and one on May 1, July 13, August 19, and September 21, respectively. Level 1, nicknamed the "new normal," included a four-hour nocturnal curfew (12–4 am) and other restrictions (such as a 50% bar capacity limit). These were expected to remain in place for the foreseeable future. Level 1 approved numerous activities, including travelling abroad (Broadbent et al., 2020; Pittaway, 2021).

The coronavirus pandemic resulted in an unparalleled economic and social disaster that impacted all corporate sectors (Aroussi et al., 2024; Bhorat et al., 2020) The pandemic's effects have altered people's behaviour. The ability to innovate and change established patterns of leadership styles was necessary to meet the challenges posed by the pandemic and any similar crises in the (Aroussi et al., 2024; du Plessis & Keyter, 2020).

To stop the COVID-19 virus from spreading and lessen its severe effects, leaders worldwide needed to adopt innovative and cooperative leadership styles. According to du Plessis & Keyter (2020), leaders must exhibit adaptability to conform to the novel protocols introduced by the epidemic. According to this, the leadership style used may influence crisis management (AlMazrouei, 2023). Various leadership theories have been identified and investigated in scholarly works.

When handling convergent crises (political, social, and economic) like the COVID-19 scenario, it might be feasible to integrate the benefits of multiple leadership styles (AlMazrouei, 2023; du Plessis & Keyter, 2020). Effective public governance is essential to shared leadership. It also incorporates societal and governmental approaches necessary for nations to organise acts effectively, efficiently, economically, and morally globally (du Plessis & Keyter, 2020; Hovstad & Mafi, 2022).

This study aims to ascertain how the COVID-19 pandemic has affected therapist’s leadership styles in the South African healthcare system. The focus will be mainly on rehabilitation therapists: speech-language therapists (SLTs), occupational therapists (OTs), and physiotherapists (PTs). The study evaluated the impact of the coronavirus pandemic on healthcare therapists' leadership styles and determined perceived leadership styles suitable for future crises like the coronavirus pandemic.

This chapter outlined the background of the study, the significance of the study and the problem statement. The dissertation's objectives, questions, methodology and structure are outlined.

1.2 Background of study

1.2.1 Healthcare

Regardless of where they reside, everyone has the right to the best health attainable. Primary healthcare is founded on accessibility (Behera et al., 2022; World Health Organisation, 2024a). It involves a comprehensive plan for establishing and supporting national health systems, bringing wellness and health services closer to local communities (Kruk et al., 2018; World Health Organisation, 2024a).

Primary healthcare paves the way for health systems to meet the needs of individuals in palliative care, sickness prevention, treatment, rehabilitation, and other services (Barnes & Woods, 2024; Kruk et al., 2018; World Health Organisation, 2024a). The World Health Organisation (2024a) indicates that this approach ensures medical treatment is delivered in a manner that honours and respects the preferences and needs of patients.

There is a widespread agreement that primary health care represents the most comprehensive, equitable, and cost-effective approach to achieving universal health coverage (Barnes & Woods, 2024; World Health Organisation, 2024a). Furthermore, enhancing the resilience of health systems to withstand shocks and crises, as well as addressing their aftereffects, is crucial (Barnes & Woods, 2024; Behera et al., 2022; World Health Organisation, 2024a).

Healthcare can be provided by both governmental and private entities (Basu et al., 2012; Kula and Fryatt, 2014). Government often provides public healthcare through national healthcare systems (Basu et al., 2012; Coveney et al., 2023). In addition to not-for-profit non-governmental providers, such as faith-based organisations, for-profit hospitals and entrepreneurial practitioners also offer private health care (Basu et al., 2012; Coveney et al., 2023; Kula & Fryatt, 2014).

A bottom-up organisational structure is necessary for any company aiming to address the complex medical requirements of individual patients (Bircher, 2020). To effectively manage these issues, interdisciplinary teams comprising professionals from several

fields, such as medicine, nursing, rehabilitative therapy, psychology, social work, and administration, are ideal (Bircher, 2020; Shannon et al., 2023).

These teams collaborate with primary care physicians, community services, and family support systems to help patients return to optimal functioning as quickly as possible (Araja, 2022; Bircher, 2020; Shannon et al., 2023). The coronavirus pandemic threatened global public health, which made healthcare services harder to access and provide (Filip et al., 2022; Núñez et al., 2021). This impact was evident even in nations with a high number of healthcare professionals, advanced medical facilities, and adequate medical resources.

Thus, all facilities had to adapt their systems to ensure rapid access and choose the most effective strategies to combat the infection, irrespective of the nation or continent (Filip et al., 2022; Makhado et al., 2024; Núñez et al., 2021). According to the World Health Organisation (2020a), significant personnel and resources were required to test and treat COVID-19 cases. Many individuals avoided seeking medical attention from healthcare practitioners, and supplies were scarce (Alvarez et al., 2023; World Health Organisation, 2020a).

Access to care declined sharply due to reduced availability of care, surgeries, and other medical services, as well as widespread fear of contracting the virus (Abuzeineh et al., 2020; Jaroń et al., 2023). In response, telemedicine was used to manage some conditions presenting symptoms (Abuzeineh et al., 2020). Telemedicine has gained popularity as an effective way to maintain patient care while minimizing the risk of coronavirus transmission among the public, healthcare professionals, and patients (Abuzeineh et al., 2020; Jaroń et al., 2023).

1.2.2 South African healthcare

The Constitution of South Africa mandates the delivery of high-quality healthcare (Stuckler et al., 2011). Subsequently, the government launched various projects and initiatives aimed at improving healthcare, efficiency, safety, and the quality of delivery and access for all users (Mogashoa & Pelser, 2014). To ensure compliance with the provision of high-quality care, there have been significant changes in laws and health policies (Moyakhe, 2014).

South Africa's most prominent council is the Health Professions Council of South Africa (HPCSA). "As a statutory body, the HPCSA is guided by a formal regulatory framework, including our founding Act, the Health Professions Act 56 of 1974. This Act governs all our activities, clearly defines the scope of each profession mandated to register with the HPCSA and sets clear processes to be followed by HPCSA in achieving our statutory mandate" (Health Professions Council of South Africa, 2024, p.1).

The HPCSA, along with the 12 professional boards it supervises, is responsible for regulating the requirements for registration, licensure, and training of health professionals as stipulated by the Health Professions Act (Health Professions Council of South Africa, 2024). According to the Health Professions Council of South Africa (2024), the council oversees the adherence to professional and ethical standards by practitioners in health professions and addresses complaints concerning these standards.

The Health Professions Council of South Africa (2024) stated that failure to behave in a manner that safeguards the public and upholds professional standards results in disciplinary action for those involved. Significant efforts have been made to improve South Africa's health care delivery standards after the 1994 elections; however, government institutions have been subject to criticism (Maphumulo & Bhengu, 2019; Niyitunga, 2022).

“The main issues in the health system are increased litigation due to preventable errors; adverse events; inadequate hygiene and infection control measures; prolonged waiting times due to a lack of personnel; and inadequate record keeping” (Maphumulo & Bhengu, 2019, p.2). According to Maphumulo & Bhengu (2019), the healthcare system in the country was already facing numerous challenges prior to the onset of the COVID-19 pandemic. Moreover, the COVID-19 pandemic significantly affected South Africa's healthcare system, revealing and exacerbating long-standing issues related to healthcare delivery and access (Lalla-Edward et al., 2020).

The District Health Barometer (2020) reported that despite post-apartheid advancements in healthcare quality and availability, there are still significant disparities between public and private health sectors, as well as between socioeconomic classes and geographic regions (McLaren, 2014). According to the District Health Barometer

(2020), inadequate funding and poor resource allocation are the main factors. This is particularly true in rural areas. The District Health Barometer (2020) indicates that in South Africa, provinces characterised with a higher proportion of rural residents correspondingly exhibit the lowest percentage of facilities achieving “perfect clinic” status.

All things considered, more health professionals in South Africa require access to mental health support services. Critical health services were delayed due to the COVID-19 pandemic's increased strain on medical professionals.

1.2.3 Rehabilitation therapists

A growing portion of the medical workforce, rehabilitation therapists, which include speech-language pathologists (SLPs, also known as speech therapists/speech-language therapists), physical therapists (PTs, also known as physiotherapists), and occupational therapists (OTs), are essential to the delivery of healthcare (Msomi & Ross, 2024; World Health Organisation, 2024c).

"A rehabilitation therapist is a certified professional working in rehabilitation, restoring a person with a disability to maximise independence in daily life. The disability may be congenital or acquired and may be acute or chronic. Rehabilitation therapists work with populations of all ages, including, for example, children with cerebral palsy, patients with stroke, patients with burns, and athletes with injuries. Three groups of professionals are included under this umbrella term: OTs, PTs, and SLPs" (World Health Organisation, 2024c, p.1).

In the rehabilitation field, evidence-based practice is promoted (Bury & Mead, 1998; Ferreira et al., 2022), and rehabilitation therapists are expected to be adept at formulating clinical questions, locating pertinent information, evaluating that evidence, and incorporating it into their work (Bury & Mead, 1998; Ferreira et al., 2022).

1.2.4 The impact of COVID-19 on therapists in healthcare-globally

According to Strom (2020b), most allied health professionals agreed with the decisions of their clinics to remain open or closed and had access to PPE of the highest calibre. Regarding layoffs, furloughs, salary reductions, or the need to use paid time off, private practices were the most severely affected (Coto et al., 2020; Ferreira et al., 2022).

Significantly, 86% of all respondents, regardless of job status, said they were anxious about the virus's spread and alterations to their workplace (Coto et al., 2020).

On the other hand, stress levels depended on having access to PPE and mental health services (Alvarez et al., 2023; Coto et al., 2020). Stress levels were lower among those who had access to mental health help than among those who did not.

1.2.5 The effect of the COVID-19 pandemic on rehabilitation therapists in South Africa

The mandatory measures to halt the virus's spread had an impact on people's lives all around the world. A significant number of healthcare workers experienced increased rates of anxiety, depression, and other psychiatric issues due to the coronavirus pandemic, especially in relation to their mental health (Makhado et al., 2024; Uys et al., 2022). The initial wave of COVID-19 impacted medical personnel's health worldwide. Significant research on the effects of the pandemic highlighted the impact on healthcare personnel's physical and mental well-being (Makhado et al., 2024; van Niekerk et al., 2023). Previous research has demonstrated the higher prevalence of symptoms related to COVID-19 among healthcare professionals; including anxiety, sadness, burnout at work, psychological stress, and sleep issues (Ul-Haq et al., 2023; van Niekerk et al., 2023). Unsurmountable pressure had a detrimental effect on healthcare workers' well-being during the COVID-19 epidemic. During the COVID-19 epidemic, a disproportionately high number of healthcare professionals got sick. Multiple studies on past viral pandemics showed that frontline and non-frontline healthcare professionals were more likely to get infected (Makhado et al., 2024; Ul-Haq et al., 2023; van Niekerk et al., 2023).

As their patients encountered an increasing variety of difficulties, healthcare providers were vulnerable to compassion fatigue. During the pandemic, it was typical to see changes in the way in which services were delivered, such as telemedicine. It was proposed that due to additional socioeconomic pressures, the effects of these stressors on healthcare workers in low- and middle-income nations (such as South Africa) were significant (Hui et al., 2023; van Niekerk et al., 2023). As healthcare team members, therapists offer their skills in various settings throughout South Africa.

Acute and long-term intervention services are among those offered by both public and private healthcare systems (van Niekerk et al., 2023). Specific therapy services (e.g.

outpatient consultations) were not considered essential by the government during South Africa's nationwide lockdown during the first wave of COVID-19. Following the initial weeks, services were progressively resumed (Hui et al., 2023; van Niekerk et al., 2023). In an occupational therapy study, indicators of compassion weariness and numbness following the death of service users were noted (Makhado et al., 2024; Uys et al., 2022).

The weariness brought on by ongoing exposure to compassion stress is known as compassion fatigue in healthcare practitioners. Realizing that the rehabilitation process remained incomplete due to patients who were discharged prematurely, several therapists expressed a sense of purposelessness (Garnett et al., 2023; Hui et al., 2023; Uys et al., 2022). It has been defined as the weariness that arises from ongoing exposure to compassion stress in healthcare personnel as compassion fatigue (Garnett et al., 2023; Uys et al., 2022).

1.2.6 Effect of the COVID-19 pandemic on leadership styles

The coronavirus pandemic has served as a stark reminder of the consequences of globalisation (du Plessis & Keyter, 2020). The pandemic spread globally, creating one of the most significant challenges to world leaders in the twenty-first century (Wiysonge, 2020). Since people live in a global, dynamic, and interdependent world, it is essential to remember that any notable event, whether good or bad, can affect the whole global scene directly or indirectly (du Plessis & Keyter, 2020; Zhang et al., 2023).

It may be necessary for proactive leadership, rather than reactive leadership, to innovate and alter ingrained patterns of leadership behaviour to address this problem and others in the future (du Plessis & Keyter, 2020). National elected leaders do not function in a vacuum; their choices and actions are evident and have an impact on the world. Improving the well-being of people everywhere continues to be one of the critical issues that public officials may encounter while serving in government. Since every leadership style has advantages and disadvantages, no one style is more suited to handle a crisis than another (AlMazrouei, 2023; Hughes et al., 2018; du Plessis & Keyter, 2020).

The leadership style required for a convergent crisis can be produced by integrating components of multiple leadership styles since no single style can possess all the necessary traits (Hughes et al., 2018; du Plessis & Keyter, 2020). This means that in

handling a crisis, one can use aspects of the transformational, transactional, servant, democratic, authoritarian, and situational leadership styles. It takes creative problem-solving from leaders, particularly public leaders, to handle a crisis like COVID-19 (Ajemba, 2022; Wiysonge, 2020).

Promoting the general well-being of citizens is essential at the same time. Healthcare professionals should take their responsibilities seriously. Nonetheless, managing a converged crisis-one in which political, social-technical, economic, and practical issues all have global ramifications-is anything from easy to simple (Ajemba, 2022; Hughes et al., 2018; du Plessis & Keyter, 2020). This study investigates the impact of the coronavirus pandemic on the leadership styles of rehabilitation therapists in South Africa.

1.3 Significance of the study

The COVID-19 pandemic created many doubts about the best leadership styles for therapists in healthcare (AlMazrouei, 2023; Sanders & Balcom, 2021). More data on the best leadership styles for future pandemics needs to be collected. It has previously been demonstrated that the emotional and psychological effects of COVID-19 are more severe for therapists, than those of any other recent pandemic or natural disaster (AlMazrouei, 2023; Brugliera et al., 2020). The organisational components that have produced tension in past crisis scenarios are most likely to happen again.

There is a need for adequate information on the leadership styles of rehabilitation therapists in the South African context. Thus, this study's findings will assist leaders, organisations, and staff to understand the effects of the coronavirus pandemic on managers. This information would result in empowering future leaders for crises, such as COVID-19.

1.4 Problem Statement

An unparalleled global humanitarian emergency arose due to the coronavirus pandemic. “Important judgements must be made readily in a situation with limited knowledge when things are tumultuous since the environment frequently experiences volatility, uncertainty, complexity, and ambiguity” (Kaul et al., 2020, p.9). To ensure the smooth operation of their company and the safety and well-being of patients, leaders needed to monitor these factors, acquire new skills, and engage in the development of problem-solving strategies (Kaul, et al., 2020).

Research regarding the impact of the coronavirus pandemic on leaders has been conducted globally (du Plessis & Keyter, 2020; Hovstad & Mafi, 2022; Porkodi, 2022). Various authors have studied behaviours, leadership styles and approaches pre-COVID-19 and post-COVID-19. The shift to telemedicine during the pandemic, necessitated rehabilitation therapists to modify their leadership styles, to oversee distant teams and provide therapy efficiently. This transition required a more cooperative and adaptable leadership approach (AlMazrouei, 2023; Haleem et al., 2021).

According to Bornman & Louw (2023), the crisis likely promoted increased collaboration among rehabilitation therapists. Leadership styles emphasising teamwork and collective problem-solving may have become essential during this period. Leaders refined their crisis management skills, acquiring the ability to navigate uncertainty and adapt strategies in real-time (Laur et al., 2021). The pandemic exacerbated stress and anxiety in both therapists and patients (Browne & Tie, 2024).

Leaders modified their approaches to offer emotional and psychological support while cultivating resilience among their staff (Browne & Tie, 2024; Litam et al., 2021). According to Sanders & Balcom (2021), the pandemic's urgency prompted alterations in decision-making processes among rehabilitation therapists. Analysing whether leaders employed more directive or participative approaches during this period offered insights into their operational efficacy. Leaders refined their crisis management skills, acquiring the ability to navigate uncertainty and adapt strategies in real-time.

The health system in South Africa is still under considerable strain due to ineffective management and the misallocation of resources (Abrahams, 2021). People have lost faith in the healthcare system due to the ongoing deterioration in quality of services and facilities (Abrahams et al., 2022). It was crucial to evaluate whether the alterations in leadership styles noted during the pandemic will exert enduring impacts on rehabilitation methods in South Africa (van Biljon & van Niekerk, 2022; Rameshan, 2024)

Healthcare issues that frequently arise at most public healthcare institutions, such as lengthy wait times and a lack of medication, often worsens the situation (Maphumulo & Bhengu, 2019). Additionally, the media greatly influences the public's opinion of primary healthcare facilities through accusations of them offering inadequate care

(Abrahams et al., 2022; Hassem et al., 2022). More information is needed in South Africa to fully understand the effects of the COVID-19 pandemic on therapists' leadership styles in the healthcare field. South Africa is underdeveloped, and the effects of COVID-19 are immense, more so for rehabilitation therapists.

There is generally limited data on anything related to rehabilitation therapists. Research is limited with regards to South African therapists and their leadership styles during and after the COVID-19 pandemic. More research regarding the respective population in SA must be undertaken. Knowledge relating to the implementation of leadership styles and evidence that is derived are limited; this would support future healthcare leaders in the country.

1.5 Research aim

To determine the impact of the COVID-19 pandemic on the leadership styles of rehabilitation therapists in a South African context.

1.6 Research objectives

- To assess the impact of the COVID-19 pandemic on rehabilitation therapist's leadership styles in South Africa.
- To determine the perceived leadership styles suitable for future crises, such as the COVID-19 pandemic in South Africa.
- To provide suitable recommendations for future rehabilitation therapists in South Africa.

1.7 Research questions

- What was the impact of the COVID-19 pandemic on the leadership styles of rehabilitation therapists?
- What are the perceived leadership styles that are suitable for future crises such as the COVID-19 pandemic?
- What recommendations can be made for future rehabilitation therapists?

1.8 Research design and methodology

The research study was a quantitative, descriptive survey research design. "A quantitative method examines a sample from a population with numerical depictions of that population's trends, attitudes, or opinions. It encompasses cross-sectional and longitudinal studies that generalise findings from a sample to the community through

questionnaires" (Creswell & Creswell, 2018, p.247). A descriptive design seeks to characterise all the variables to respond to the research question by describing the characteristics of a situation (Leedy & Omrod, 2015).

The probability-stratified random sampling method was used to collect data. Descriptive and inferential statistics were used for the quantitative analysis. This selection method was chosen because the researcher wanted to specifically recruit HPCSA-registered leaders in the healthcare profession who were impacted by COVID-19 (Daniel, 2011). The survey was conducted online, with voluntary participation and a self-administered questionnaire. There were 377 potential respondents. The population size of 18,000 (all three professions) provided a sample size of 377. The sample size was calculated at a confidence level of 95%, with a population size of 18000 and a margin of error of 5%. Potential respondents were emailed a Google Docs link and pamphlet to request their participation in the study. The link had a section where the respondents were asked whether they agree to participate or not. If the respondent agreed, there was an informed consent section for their perusal and approval.

In this study, the survey was used to define variables such as styles of leadership used, the effect of COVID-19 on leadership styles and the leadership styles perceived to be suitable for future pandemics/crises. The constraint of the study was the timeframe for conducting the analysis. Due to the time given, the focus was only on leading/managing healthcare practitioners registered with HPCSA.

The limitation excluded any other health professionals who are not rehabilitation therapists and those in other independent councils.

1.9 Dissertation structure

1.9.1 Chapter 1: Introduction

The study's introduction was provided in Chapter 1. It began with the study's background and moved on to its significance, problem statement, aim, objectives, research questions and fundamental definitions.

1.9.2 Chapter 2: Literature review

This chapter focused on the conceptual and theoretical framework of the study, developed from a comprehensive literature analysis examining the effects of the

coronavirus pandemic on local and global scales. The literature analysed the effects of the pandemic on therapists and their leadership methodologies.

1.9.3 Chapter 3: Research methodology

Chapter 3 outlined the methodology employed in the study. The process of information collection and analyses were also detailed. This study was a quantitative, descriptive research design. The employed method was stratified random sampling, a technique categorised under probability sampling. Ethical clearance and an amendment to the title was applied for and received approval. Thereafter, the data collection instrument and the questionnaire were examined. Considering the benefit of the instrument, it allowed the researcher to gain detailed data from respondents.

Policies and procedures were implemented to guarantee that the data remained reliable and credible. The validity of the research was enhanced by the survey that was carried out with questionnaires. The reliability of the study was determined by the inter-rater reliability (IRR) where the Kendall's Coefficient of Concordance (W) was substantial. Chapter Three concluded by examining the adherence to ethical procedures by the researcher. This ensured that respondents were adequately informed about the nature of the research, and that their confidentiality and anonymity were maintained throughout all stages of the study.

1.9.4 Chapter 4: Results

Chapter Four provided a comprehensive analysis of the study's findings based on the various sections of the questionnaire. The analysis included demographics and clinical data, specifically focussing on employment status, sector, profession, and the number of employees managed. An analysis was conducted on the types of leadership styles employed by rehabilitation therapists prior to and during COVID-19, as well as the effectiveness of these selected leadership styles. The perceived leadership styles appropriate for future pandemics were examined. This chapter presented the survey findings from the respondents, and various statistical measures were employed to analyse each section.

1.9.5 Chapter 5: Discussion

This chapter outlined the principal findings of the study, situating them within the context of the literature which was examined in chapter two. The findings revealed a

notable shift in the leadership styles of rehabilitation therapists due to the coronavirus pandemic. Respondents displayed a preference for the situational leadership style throughout the COVID-19 pandemic, which was consistent with results from other research. The leadership styles considered suitable for future pandemics among rehabilitation therapists were recognised as a blend of different styles.

1.9.6 Chapter 6: Conclusion and Recommendations

In Chapter 6, the results of the respondent surveys were discussed. Recommendations on managing staff in times of crisis was provided to rehabilitation therapists. Based on inferences drawn from the research study, various recommendations were made. The key conclusions drawn from this research study highlighted the support to senior rehabilitation therapists in times of crisis. This was intended to be helpful to them, to remain optimistic about the organisation's success and boost productivity.

1.10 Chapter summary

This chapter included the context of the study, an explanation of the research problem, and aims to guide the investigation. In addition, the study's objectives, research design, and terminology definitions were outlined. The chapter highlighted the study's main goals, and the methods employed during the study. A summary of the research methodology was discussed. Lastly, an outline of the dissertation was presented. A thorough analysis of pertinent research and related literature was provided in the next chapter.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature relating to the COVID-19 pandemic and the effect it had on the leadership styles of rehabilitation therapists. The COVID-19 pandemic impacted many countries, presenting world leaders with one of the most challenging problems of the twenty-first century. One should remember that because humans live in a global, dynamic, and interdependent world (du Plessis & Keyter, 2020), every event, irrespective of its magnitude, may have an effect, either directly or indirectly, on the global scene. An overview of the coronavirus pandemic and its worldwide effects was provided in this chapter. The impact on South African therapists working in healthcare was detailed in this chapter.

This chapter further details the effects on therapists' leadership philosophies in the medical field. The application of leadership styles in healthcare was examined in this chapter. Several elements determine the COVID-19 pandemic's successful leadership styles. Previous studies on the effect of the coronavirus disease on the leadership philosophies of medical professionals, including therapists, have also been reviewed during this study.

2.2 The coronavirus pandemic

The SARS-CoV-2 virus was the source of COVID-19; an infectious disease (World Health Organisation, 2024a). Most virus-infected individuals recovered from mild to moderate respiratory illness without special care (Cascella et al., 2024; World Health Organisation, 2024a). Some, nevertheless, got quite sick and needed to be sent to the hospital. Advanced age and underlying medical conditions such diabetes, cancer, chronic respiratory illnesses, and cardiovascular disease were associated with higher rates of severe illness (Cascella et al., 2024; World Health Organisation, 2024a).

Every age group is susceptible to contracting COVID-19, which can result in serious disease or even death. The best defence against the illness was awareness of its symptoms and the virus's modes of transmission. To avoid spreading the infection to others, isolation was suggested (World Health Organisation, 2024a; Zhang et al.,

2023). Numerous limitations were imposed, such as the South African national shutdown.

The World Health Organisation (2024a) emphasised the importance of maintaining a minimum distance of one metre between individuals, wearing a properly fitting mask, and regularly cleaning hands or using an alcohol-based rub (Ameme et al., 2021). Infected individuals transmitted the virus through tiny liquid particles expelled during coughing, sneezing, speaking, singing, or breathing (World Health Organisation, 2024a; Zhang et al., 2023). Particles existed as small aerosols or larger respiratory droplets. Adhering to respiratory etiquette, including coughing into a bent elbow, and isolating at home until recovery was essential (Ameme et al., 2021; World Health Organisation, 2024a).

2.2.1 The COVID-19 pandemic in South Africa

The President of South Africa declared a National State of Disaster on March 15th, 2020, because of the daily rise in the number of verified COVID-19 cases in the country (South African Government News Agency, 2020a). Not long afterwards, on March 23, a nationwide lockdown, classified as level five, was declared, with the start date being March 27, 2020 (South African Government News Agency, 2020b). To stop the virus from spreading, the level 5 lockdown was implemented along with the risk-adjusted strategy.

It included orders to stay at home, closures of businesses and schools, and limitations on travel within and between provinces (South African Government News Agency, 2020b). Aside from pharmacies, food and grocery stores, and healthcare facilities, only “essential services" firms were permitted to continue operating (South African Government News Agency, 2020b). For the government to have enough time to have public health institutions ready for the expected high volume of cases, a lockdown was implemented (Made et al., 2021). The number of cases kept rising, even though it was at a much slower rate.

In addition to lowering the incidence of new cases, the lockdown had unfavourable effects, such as job loss and restricted freedom of movement. To salvage the nation's economy, the South African government relaxed lockdown rules in May 2020 due to the long-term economic consequences (Made et al., 2021). According to the South

African Government (2021a), from June 28th to July 25th, 2021, the nation was under an amended Alert Level 4.

Retail and food establishments were free to carry the entire range of products. Transportation limitations were removed for private and public automobiles (Abdul Latiff & Mohd, 2023; South African Government, 2021b). They were permitted to operate during the curfew hours and had to comply with the strict capacity and sanitary guidelines (South African Government, 2021a). People had to stay inside their houses from 8 p.m. until 5 a.m. People could only travel across provinces. Those who were performing a necessary service required a specific permit (South African Government, 2021b).

On 26th July to 12th September 2021, the country was moved to adjusted level 3 (South African Government, 2021b). Everyone was restricted to their homes from 23:00 to 04:00 every day unless they could demonstrate one of the following: (a) they had permission to leave the house per the relevant Cabinet member's instructions; (b) they were attending to a medical or security emergency; or (c) they were arriving on a flight or leaving from an airport that required them to travel during restricted hours (South African Government, 2021a).

According to the SA Coronavirus (2021), violation of the curfew constituted an offence for which the offender was punished with a fine, up to six months in jail, or both. All entertainment venues, whether indoor or outdoor, had to close at 22:00 (SA Coronavirus, 2021). From September 13 to September 30, 2021, there was an adjusted alert level of 2 (South African Government, 2021b), and there were no longer any limitations on travel between provinces.

Small-group visits to relatives and friends were allowed (South African Government, 2021c). To maintain social distance, specified rules were followed when granting permission for lodging, hospitality locations, and excursions (South African Government, 2021c). Alert level 1 was modified and in effect from October 1, 2021, to April 4, 2022. The curfew's new hours were 12 midnight to 4 am (South African Government News Agency, 2020c).

Establishments that were deemed unnecessary, such as pubs, restaurants, and fitness centres, were fully reopened. There are limitations on businesses and an earlier

closure time of 11 p.m. (Al-Habaibeh et al., 2021; South African Government News Agency, 2020c). This covered social meetings, political gatherings, and religious ceremonies in addition to eateries, pubs, taverns, and other establishments of a similar nature (Peeling et al., 2022; South African Government News Agency, 2020c). April 5, 2022, saw the lifting of the national state of disaster restrictions, and the country was ushered into "normality".

2.2.2 The impact of the COVID-19 pandemic on therapists in healthcare

Rehabilitation was beneficial in the early acute stage of COVID-19 management, in addition to its advantages for improving respiratory function, exercise endurance, the capacity to carry out activities of daily living, and the management of the psychosocial and cognitive aftereffects of disease (Li, 2020; Smith et al., 2020). According to Ceravolo et al. (2020), rehabilitation has also been shown to be essential for those who have been physically isolated due to the coronavirus pandemic.

These individuals include those who experienced deteriorating mental health conditions due to social isolation, those who became deconditioned due to prolonged immobilisation and musculoskeletal deterioration, and those who experienced functional regression because of pandemic restrictions on rehabilitation services. According to Storm (2020a), 35% - 45% of private sector survey respondents reported that COVID-19 temporarily closed their medical practices.

The private practices that chose to stay open were compelled to curtail costs by lowering staffing levels, putting employees on furlough or termination, or lowering executive compensation (Storm, 2020a). Healthcare workers' access to personal protective equipment (PPE) was compromised by the rapid spread of COVID-19, even despite instructions from the World Health Organisation and the CDC regarding recommended PPE (Storm, 2020b).

According to Storm (2020b), a study conducted through listening to health professionals, highlighted that cleaning surfaces, donning masks and gloves, and reducing the number of patients seen were the most popular safety precautions taken by hearing clinics to help stop the spread of the COVID-19 pandemic (Storm, 2020b). Due to their working conditions, healthcare professionals are naturally more stressed

out and are more likely to experience emotional problems during infectious disease epidemics (Weinberg & Creed, 2000).

According to Coto et al. (2020),most respondents (67.2%) said they were employed, while 11.8% said they were employed but receive less money; 10.5% of respondents said they had been placed on furlough, and 4.2% of respondents said they lost their jobs (Coto et al., 2020). Due to the uncertainties surrounding reimbursement for telehealth services, many universities and private practices introduced telehealth or virtual clinics during the pandemic, challenging healthcare delivery models and meeting patient requirements (Wosik et al., 2020).

Some clinics were quick to embrace the innovative approach to providing services, after emergency legislation allowed for flexibility in telehealth reimbursement (Wosik et al., 2020). Notably, allied health professionals expressed worries about contracting COVID-19 both at work and outside of it. Transmitting the virus to others was the primary concern, particularly among older responders (Coto et al., 2020). The dedication of healthcare professionals to deliver clinical treatment under high-stress situations was evident.

Stress levels among providers were linked to access to PPE and mental health resources (Coto et al., 2020). Thus, allied health personnel provided in-person clinical care and received adequate PPE. It is advised that stress levels should be monitored, and mental health screenings should be done regularly. This will improve the well-being of carers, lessen burnout, and avoid long-term psychopathology should mental health concerns be identified early (Coto et al., 2020).

The necessity for Speech-Language Therapists to be included in the team managing critically ill patients increased. The number of COVID-19 patients rose as the virus disseminated more rapidly, leading to an increase in hospitalisations (Chadd et al., 2021). According to Ceravolo et al. (2020), about 30% of hospitalised COVID-19 patients are estimated to have required a swallow examination, and many intubated required swallow rehabilitations.

Dysphagia, defined as a dysfunction in swallowing, was recognised as a common outcome in those patients (Chadd et al., 2021; Masuku et al., 2022). Impaired swallowing function complicated oral feeding and elevated the risk of aspiration

pneumonia, a condition associated with patients that had the coronavirus disease (Chalmers et al., 2023). The pandemic notably impacted SLT services through the cessation of various therapy programs, the reassignment of professionals, and the heightened demand for specialists in critical, acute, and rehabilitation care (Chadd et al., 2021; Chalmers et al., 2023).

The COVID-19 pandemic profoundly affected occupational therapy due to several factors. These are: inadequate preparation, service access restrictions, increased demands during redeployment, constantly shifting work environments, utilisation of new technologies, and resource constraints, such as a shortage of personal protective equipment and additional space for physical distancing (Hoel et al., 2021; Ranjan et al., 2023).

A significant number of OTs reported lower morale and safety worries, indicating that working during the epidemic had a personal influence on their health as well (Ceravolo et al., 2020). Various outcomes, including the OT's sense of competence, efficacy, and safety, were significantly positively impacted by residing in a high-income nation and having access to COVID-19-specific training (Hoel et al., 2021; Ranjan et al., 2023). Higher levels of safety, efficacy, and favourable effects related to the pandemic were notably less commonly reported by those employed in clinical roles (Hoel et al., 2021; Phalatse et al., 2022).

The crisis has also had a severe impact on the physical treatment industry. Physiotherapy faced challenges in maintaining its professional clinical operations in primary care worldwide throughout the global crisis and secondary care within the public health system and private clinics (ShahAli, 2023; Vyas & Sheth, 2021). Physiotherapy intervention continued to be essential for maintaining the community’s health. To minimise physical touch while still achieving therapeutic benefits, therapeutic procedures were modified (Narain & Mathye, 2023; Vyas & Sheth, 2021).

Although the use of new digital tactics increased, care had to be taken to guarantee the calibre of the intervention. Extreme caution and the utmost care was taken to lower the risk of infection for the patient and the practitioner (Gleadhill et al., 2022). Due to this, telemedicine and telerehabilitation have also emerged as ways to use modern

technology to deliver services securely and safely (Gleadhill et al., 2022; Vyas & Sheth, 2021).

2.2.3 The impact of the COVID-19 pandemic on therapists in healthcare in South Africa

The COVID-19 pandemic has disproportionately affected healthcare personnel, particularly in terms of their mental health, with many exhibiting an increased prevalence of anxiety, depression, and other psychiatric conditions (Semo & Frissa, 2020; Uys et al., 2022). Globally, the first wave of the COVID-19 pandemic impacted medical professionals' health. Most studies have focused on the physical and psychological effects of the pandemic on medical staff (van Niekerk et al., 2023; Semo & Frissa, 2020).

Healthcare professionals were susceptible to compassion fatigue when they saw a growing range of challenges from their patients. It was expected to observe shifts in the delivery of services, including telemedicine, during the epidemic (De Kock, 2021; van Niekerk et al., 2023). Social isolation policies in hospitals hindered moms from providing consolation to their severely malnourished and burned children (Broadbent et al., 2020). Due to social distancing, group treatment was limited to three to five respondents. Additionally, wearing a mask disrupted the dynamics of group therapy and made it difficult to encourage therapeutic aspects (Dark et al., 2022; Erschens et al., 2022).

Support groups for mothers of disabled children were discontinued in rural areas, and home visits by therapists were not permissible (Sadiki, 2023; Uys et al., 2022). Families were not permitted to reside in the wards, which prevented them from providing adequate family education and emotional support for their members. Due to the COVID-19 limits, some services could no longer be provided, and others had to be rescheduled (Duden et al., 2022; van Niekerk et al., 2023; Phalatse et al., 2022). Resources were few, and this had an impact on the therapeutic connections between therapists and their clients. There is limited data on the specific professions regarding the effects of the pandemic in South Africa; an area where this study contributed.

The COVID-19 epidemic affected people's lives in various ways, including the manner in which they socialise, work, learn, live, and play. Many affected populations were

vulnerable and thus, required additional support, which proved difficult to provide due to COVID-19 constraints. Telehealth is one tactic that therapy practitioners addressed, as well as good aspects and issues that may aid in empowering clients in the future.

2.2.4 The impact of the COVID-19 pandemic on leadership styles

A leader should assess the advantages and disadvantages of their team members and motivate them to meet predetermined goals (Antonakis, 2021). A leader's strategy and style of leadership can have a significant role in handling a crisis like the COVID-19 pandemic. In this sense, how a situation is dealt with can be influenced by the leadership approach (AlMazrouei, 2023; du Plessis & Keyter, 2020).

The characteristics of an effective leader could change based on the team, the organisation, and the workplace. Leadership styles differ, and as a result, a leader who employs a particular management style can be identified by a variety of traits (Easton & Steyn, 2022; Vardiashvili, 2022). The COVID-19 pandemic has resulted in notable transformations for leaders and organisations (Santoso et al., 2022; Vardiashvili, 2022). Effective leadership is essential for these changes to be beneficial.

Leaders conveyed a wish to integrate hard and soft skills better; they started prioritising communication, empathy, and resilience since traits such as technical proficiency, assertiveness, and authority are becoming less and less critical (Ball, 2020; Garretsen et al., 2022).To respond quickly to the COVID-19 issue, adaptable measures and working models were put into place, including the digitisation of working from home and the construction and operation of an enterprise-wide information system (Ball, 2020; Talu & Nazarov, 2020).Rather than building a relationship of trust and attachment between employers and employees, the modifications caused tension, anxiety, panic, discomfort that resulted in frequently unpleasant feelings (Egozi Fakash et al., 2023). Employee morale suffered, jobs were in jeopardy due to unemployment, and employees faced challenging times as they were not prepared to adjust to the changing circumstances (Ball, 2020; Egozi Farkash et al., 2023).

In addition to improving employee safety with regards to their personal lives and the organisation's performance, regular and clear communication between the leader and staff is a crucial component of crisis management (Ball, 2020; Malik et al., 2020). In addition to effectively combatting false information with well-reasoned arguments, the

leader must also have favourable responsibility, discipline, objectivity, and foresight (Garretsen et al., 2022; Egozi Farkash at al., 2023).

To foster loyalty and devotion to the organisation, a leader must first acknowledge, respect, and affirm the talents of those under their charge. Leadership was characterised by the emphasis on people orientation, sensitivity to external pressures, multilateral management skills, and a dedication to two-way communication through transformative leadership and a well-founded vision (Malik et al., 2020; Talu & Nazarov, 2020).

The leaders' shortcomings, which included poor communication, impatience, an inability to reverse choices, mentioning unpleasant disagreements, and having an over-perfectionist mentality, which occasionally surfaced throughout the crisis (Ball, 2020; Vardiashvili, 2022). According to Malik et al. (2020), leaders occasionally took controversial positions and balanced them with incentives and promotions.

The COVID-19 pandemic offered opportunities in addition to its drawbacks. Global issues were brought about by the recurrent outbreaks of COVID-19 (Akter & Islam, 2023). The issues encouraged innovation. Innovation was desperately needed to address and manage the problems of every corporate area. Ball (2020), denoted that patience and resilience are also necessary for effective crisis management.

Under capable leadership, difficult periods and stress can be overcome and team performance can be enhanced (Dwiedienawati et al., 2021; Akter & Islam, 2023). Great leaders eventually foster a safe, trusting environment for crisis management and control by guarding individuals and promoting connection and cooperation (Alhammadi & Hamdan, 2022).

2.4 Leadership defined

The grand man theory and the trait theory strongly emphasise the person (Bass & Stogdill, 1990). Leadership is an influence relationship among leaders and team members who intend to make real changes, where outcomes reflect their shared purposes (Rost,1993, as cited in Daft, 2008). After reviewing previous definitions of leadership, Barker (2002) drew the same conclusion: leadership is about behaviours and processes.

When one or more people with a variety of gifts, abilities, and skills are chosen, trained, and influenced, they become team members of an organisation (Winston & Patterson, 2006). These team members are then focused on the mission and goals of the organisation, which causes them to expend spiritual, emotional, and physical energy voluntarily and enthusiastically in a coordinated and concerted effort to achieve the mission and goals of the organisation (Gasela, 2021; Winston & Patterson, 2006).

“The four components of leadership include process, influence, groups, and shared objectives. Process discusses the relationship between leaders and their team members and the way leadership is an interactive event rather than a one-time occurrence"(Northouse, 2015, p.9). One of a leader's most crucial traits is likely to influence; a leader must persuade their people to follow their example. Leadership happens in groups, where the leader motivates team members to work toward the group's objective.

2.4.1 Management defined

Good leadership and management are necessary to deliver high-quality services. To accomplish their objectives, they can bargain for resources and other forms of assistance and inspire others (Barid & Wajdi, 2017; Bass, 2010). Managers guarantee that the resources at their disposal are efficiently arranged and utilised to provide optimal outcomes (Kotter, 1990). To get the best outcomes in during challenging and resource-constrained circumstances in many low-to middle-income nations, a manager must possess leadership skills (Barid & Wajdi, 2017).

Management is defined as the provision of guidance to a group or organisation through executive, administrative, and supervisory functions (Katz, 1955). Although there are similarities between management and leadership, they are not the same (Algahtani, 2014; Kotterman, 2006). Collaboration, influence, and teamwork to achieve common goals are integral components of management and leadership (Beenen et al., 2021; Kotterman, 2006). Although, the domains of management and leadership are thought to be fundamentally dissimilar (Beenen et al., 2021).

Katz (1955) defined leadership as a multidirectional influence relationship and management as a unidirectional authority link. "Managers lead, while leaders manage; these are two distinct roles. Leadership can be a component of management

functions, and management can be enhanced by leadership actions. However, not all managers lead, and not all leaders manage" (Bass & Stogdill, 1990, p. 383). This study focuses on leadership styles which managers or leaders might employ.

2.4.2 Leadership theory

- Autocratic leadership style

Authoritarian leadership is defined as a type of leadership that prioritises personal dominance, centralised power, and strict control over subordinates (Chukwusa, 2018; Wang et al., 2019). It has been demonstrated that authoritarian leadership negatively affects outcome factors such as extra-role performance, task performance, organisational commitment, and team interaction (Du et al., 2020; Wang et al., 2019). Autocratic leadership may be helpful in some circumstances, such as requiring quick decisions without thorough consultation (Chukwusa, 2018; Du et al., 2020).

Maqsood et al. (2013) stated that an autocratic leadership style is typified by a single individual having complete control over all decisions and little employee involvement. Dictatorial leaders tend to make choices based on their judgements and ideas rather than frequently consulting their subordinates (Bhatti, 2012; Hassnain, 2023). Under autocratic leadership, employees are subject to totalitarian control. According to Luqman et al. (2019), an authoritarian leader should supervise the structure, rules, and decision-making process with little input from their team members.

According to Chukwusa (2018), autocratic leaders rarely consider suggestions from their team members that call for complete and authoritarian group control. Instead, they usually decide based on their thoughts and judgements (Asno & Poerwita Sary, 2023). Leaders who misuse the autocratic leadership style are generally perceived as being tyrannical. While autocratic leadership can be beneficial in certain situations, it can also be a reason for passivity in many other cases. Since employees are not consulted, they are unable to contribute; this makes it difficult for organisations to come up with innovative ideas (Asno & Poerwita Sary, 2023; Northouse, 2021).

- Democratic leadership style

A democratic leader encourages involvement in decision-making. Democratic leadership is linked to higher morale in organisational contexts (Anderson,1959, as cited in Sharma & Singh, 2013). Democratic group leaders take an active role in the

group, offer group members advice, and are open to proposals from subordinates. Democracy is considered the most effective type of leadership (Sharma & Singh, 2013).

According to Norton (1996), democracy can be perceived as a form of governance that facilitates an individuals' growth, cultivates ethical human behaviour and helps them attain their innate capabilities. Democratic leadership seeks to strengthen the influence and participation of others in decision-making, promotes a sense of identity as co-creators of a community, and sparks conversation and debate (Woods & Roberts, 2018). These goals mirror the perspectives on communication, belonging, and democracy of power discussed in the section before. Democratic leadership ideas are also embodied in the collegial and participative styles of leadership, which encourage cooperative activities and models of shared power and decision-making (Bush, 2008; Sharma & Singh, 2013; Wang et al., 2022).

Northouse (2015) asserts that democratic leaders acknowledge the potential for delegating leadership roles, allowing for an orderly interchange between leader and team member positions. They perceive their team members as fully capable of independently fulfilling their responsibilities. They assert the importance of acknowledging the presence of democratic leaders and team members (Biloa, 2023; Bwalya, 2023). Democratic leaders collaborate with team members and prioritise equitable treatment over exerting control. Ultimately, they perceive their roles as being more inclined towards mentors than as directors (Bwalya, 2023; Steinmann et al., 2018).

When exercising democratic leadership, a leader considers the team's viewpoints when making decisions (Biloa, 2023; Corporate Finance Institute, 2022). Under this collaborative and consultative leadership style, every team member can shape the direction of current efforts. However, the leader has the final say over decisions (Akparep et al., 2019; Corporate Finance Institute, 2022; Ogunode, 2023). Due to its ability to give lower-level employees inside the business a voice and significance, democratic leadership is widely acknowledged as a very effective leadership style (Akparep et al., 2019; Ogunode, 2023). It's a format akin to boardroom deliberations. In democratic leadership, collaborative decision making can be fostered through voting on the best decision.

It is also critical to highlight what may be referred to as the politically adaptive role of leadership agency in organisational democracy, given the relationship between democratic leadership style and circumstance (Hassnain, 2023). This demonstrates a response to the pervasiveness of power dynamics and the necessity of navigating disparities, which includes adapting to various circumstances. Democratic leadership differs from distributed leadership in prioritising safeguarding individuals from unjustified authority (Fagerdal et al., 2022; Hassnain, 2023).

- Transactional leadership style

Maintaining the status quo is more important to transactional leadership than changing the trajectory of events, where team members receive praise or criticism based on their behaviour (Aarons, 2006; Simani, 2022). Through transactional leadership, the organisation's leaders closely monitor their subordinates in order for prompt action when mistakes are made. The active management style aids leaders in recognising difficulties that their subordinates face, whilst being proactive can assist team members in achieving their objectives and maintaining standards (Khairy et al., 2022; Young et al., 2020).

The transactional leadership theory, according to Daft & Marcic (2008), is based on a conventional management procedure that entails organising, leading, and controlling. Transactional leaders must set up appropriate systems, offer incentives and rewards, and consider workers' demands while making decisions (Odumeru & Ogbonna, 2013). As per Mufti et al. (2020), managers operating in organisations with straightforward and standard assignments are most suited for this leadership style.

According to Suzanto (2018), there are three signs or components that make up transactional leadership: contingent reward, which is a benefit given to employees who perform well at work. Active management by exception refers to assigning tasks to subordinates in a way that helps them avoid mistakes; if they do, it allows them to be discovered more easily (Baškarada et al., 2017; Suzanto, 2018). Management by exception, or passive management, is acting only in response to a significant issue or when an employee falls short of the objective (Baškarada et al., 2017; Mabasa & Eresia-Eke, 2022).

Employing the contingent-reward aspect of the transactional leadership style fosters creativity, particularly when workers find the promised benefits enticing (Burroughs et al. 2011; Eisenberger & Aselage, 2009). Faraz et al. (2018), cautions that rewards lose some of their regulating power over time. This aligns with the perspective of Folakemi et al. (2017), who maintain that integrating additional leadership behaviours might amplify the effectiveness of the contingent-reward aspect of the transactional leadership style.

- Transformational leadership style

Transformational leaders often excessively motivate people which is often seen not to be feasible. Workers frequently perform better when given elevated expectations; in addition to improved performance, team members are more likely to be committed and satisfied (Khan et al., 2020; Steinmann et al., 2018). The leadership potential and growth of the employees also rise when leaders invest heavily in their subordinates' personal development and individual requirements (Mazzetti & Schaufeli, 2022; Steinmann et al., 2018).

Transformational leadership has a direct impact on green growth and sustainable development activation. Tongsoongnern & Lee (2022) identified four components of transformative leadership: idealised influence, inspirational motivation, intellectual stimulation, and personalised attention (Khan et al., 2020). As per Mdletshe & Nzimakwe (2023), transformational leadership is a type of leadership in which leaders inspire team members to prioritise the demands of the business over their own.

This type of leadership can have a significant and positive impact on team members, encouraging them to make the necessary changes. Idealised influence is a leader's capacity to inspire adoration and build respect in team members, inspiring them to emulate the leader (Barbuto & Burbach, 2006; Saladis, 2021). The goal of a transformative leader should be to boost team members' optimism, zeal, and focus. They educate and develop staff members to increase their awareness, creativity, and inventiveness (Jun & Lee, 2023; Moradi Korejan & Shahbazi, 2016).

The transformative leadership that is prominent currently has the power to push team members to new performance and skill development heights. Ghadi et al. (2013) identified four sub-dimensions of transformational leadership. The ability of leaders to

increase levels of identification, commitment, and loyalty while eschewing self-interest, is the initial definition of idealised influence. Inspirational leadership is the capacity of a leader to motivate team members to take on significant roles inside the organisation (Moradi Korejan & Shahbazi, 2016; Saad Alessa, 2021).

The ability of a leader to show their team members that they are innovative, and become risk-takers, is a critical component of intellectual stimulation (Saad Alessa, 2021). Under the final category, empowerment, leaders work with subordinates or act as a top-down, authoritative motivator. A strategy for achieving this is to give subordinates the freedom to independently make their own decisions (Moradi Korejan & Shahbazi, 2016; Tongsoongnern & Lee, 2022).

- Charismatic leadership style

According to research by Bass (1990), charismatic leaders use impression management to build subordinate trust in them as leaders, foster a perception of competence, and create an image of competence (Dinibutun, 2020; Kim et al., 2013). The theatrical function. where charisma plays a dramaturgical role, is created by the leader in collaboration with suppliers, rivals, and customers, among others. As noted by Gardner & Alvolio (1998), dramatic acts of framing, scripting, staging, and executing, are constituents of the impression management process of charismatic leadership.

A charismatic leader has a far-reaching vision, proposes a resolution to the problem and draws supporters who share their vision, which can develop during a societal crisis (Yukl, 2010, as cited in Dinibutun, 2020). In the charismatic management philosophy, team members assign gallant or exceptional management aptitudes upon noticing behaviours (Robbins & Judge, 2013). "Numerous studies have attempted to define the traits of charismatic leaders: they have a vision, are prepared to take personal risks to realise that goals, are attentive to the needs of their team members, and exhibit aligned behaviours" (Robbins & Judge, 2013, p. 7).

Drawing from the attributes above, charismatic leaders possess vision, practical communication skills, the ability to inspire trust, empower others to act, embrace risk, and have a forward-thinking outlook (Day & Antonakis, 2020; Latif, 2016). These qualities are considered to be closely related. Whether they are leading a business

team, cult, or political party, charismatic leaders are able to forge bonds with their team members (Latif, 2016; Paulsen et al., 2009). They frequently emphasise the group's clarity and distinctiveness. They will then cultivate the belief that their group is superior to all others, especially in the eyes of their adherents. The characteristics of charismatic leaders are that they strongly identify with the group, making membership in the group equate to being one with the leader (Day & Antonakis, 2020; Latif, 2016; Paulsen et al., 2009)

According to Shamir (1993), the bulk of theoretical and empirical research on charismatic leadership shows advantages, such as high performance, higher levels of satisfaction and motivation in team members, and high effectiveness ratings from both subordinates and superiors (Zhang et al., 2020). This shows that charismatic leaders can improve their team members' performance and increase job satisfaction; this has the potential to drastically change an organisation. Charm can potentially harmful since it is a value-neutral notion that does not distinguish between good or moral, and poor or immoral charismatic leadership (Rafiq & Khan, 2023; Zhang et al., 2020). Hitler, Stalin, and Roosevelt, for instance, were all considered to be charismatic leaders (Latif, 2016; Rao, 2010).

Charismatic leadership has the potential to both enhance and preserve the positive reputation of an organisation, while also inciting team members to blind zeal, and ultimately, selflessness (Gebhardt, 2024; Latif, 2016; Zhang et al., 2020). Thus, in managing an organisation, charismatic leaders should consider their ethical, such as emphasising, creating and being mindful of team member requirements (Latif, 2016).

- Bureaucratic leadership style

The origins of bureaucratic administration are attributed to Max Weber, a German sociologist, philosopher, lawyer, and political economist who died in 1947. As a political economist, jurist, and sociologist, he established a government bureaucracy (Derman, 2012; Serpa & Ferreira, 2019). According to Monteiro & Adler (2021), bureaucracy is a systematic approach to managing large organisations, such as the government, by establishing organisational structure and systematic processes that ensure order.

Leaders that are a part of the bureaucracy, influence those under their control to follow the rules and regulations that they have established (Abun et al., 2022). They are, nevertheless, more committed to their staff members than to their policies and procedures, which is the reason that they often appear remote (Akparep et al., 2019). Given that this impedes employee development and motivation, this strategy might be more helpful. These leaders are meticulous in completing their tasks (Abun et al.,2022; Monteiro & Alder, 2021).

Every bureaucratic leader follows predetermined procedures. They ensure that their team members actions are accurate and strictly adhere to all guidelines. This leadership style is ideal when there are numerous safety hazards or significant financial stakes at hand (Kraimer, 2001; Marbell, 2024). The bureaucratic leadership style is an approach that can be summed up as a "rule by rule". Decisions made by bureaucratic executives are typically inflexible and based on strict restrictions (Graham, 2008; Gultom & Situmorang, 2020).

The freedom of a select few to produce and act is the focal point of practically all activities, and even in those cases; it shouldn't be isolated from the rules already in place (Gultom & Situmorang, 2020). Organisational performance is not readily impacted by bureaucratic leadership. This indicates that organisational performance is not entirely supported by bureaucratic leadership (Bauer et al., 2024; Idrus et al., 2015).

Research indicates that bureaucratic leadership is typified by inadequate task orientation, which is a deficient understanding of interpersonal relationships (Ullah, 2021). There is an emphasis on rules and procedures for the personal benefit of individuals, where the application of formal laws and procedures, uphold and regulate circumstances with a great deal of caution (Idrus et al., 2015; Ullah, 2021). Political orientation characterises bureaucratic organisations (Hammel & Zanini, 2017).

Gaining influence and power wastes far too much energy. Everyone is vying for position and influence, which promotes politicking and creates adversaries within the same organisation (Kolzow, 2014; Ullah, 2021). Additionally, it fosters a culture of face-saving, where blame is constantly placed on others rather than on the shoulders

of the guilty. Promotions are granted based on political connections rather than qualifications, another negative effect (Hammel & Zanini, 2017; Nayak, 2014).

- Situational leadership style

According to Thompson & Vecchio (2009), a flexible framework enables leaders to modify their approach to suit the needs of their team or specific individuals. Leaders can tailor their approach to suit the needs of their team or individual members due to its flexibility (Akparep et al., 2019). An accurate description of the relationship between supervisor behaviour and subordinate characteristics is as follows: according to Thompson & Vecchio (2009), supervisors should exercise significant consideration and exhibit less task structuring when interacting with subordinates who are not yet at the appropriate maturity level.

Task structuring should increase with the subordinates' maturity; yet, when the subordinates achieve mid-level and high-level maturity, consideration should increase and eventually diminish (Meirovich & Gu, 2014). In terms of supervision, there are four types of subordinates (Thompson & Vecchio, 2009): (a) those with very low maturity who should receive guidance in the form of "telling", (b) those with moderately low maturity who should receive guidance in the form of "selling," (c) those with moderately high maturity who should receive guidance in the form of "participating," and (d) those with very high maturity who should receive guidance in the form of "delegating" (Thompson & Vecchio, 2009, p.5).

In simple terms, the situational leadership style proposes that team members' readiness for self-direction, which is preferred over the more pejorative term "follower maturity", serves as a key contextual factor in determining the most effective leadership style (Thompson & Vecchio, 2009). Globally, developing countries such as South Africa and developed nations were fighting the COVID-19 pandemic because of inadequate healthcare systems and socioeconomic vulnerabilities (Rodić & Marić, 2021).

They faced an unheard-of danger to social harmony, human life, and financial catastrophe. During the Covid-19 pandemic, decisiveness, action, and leadership were needed (du Plessis & Keyter, 2020). This study determined the most viable leadership styles managers can adopt in the healthcare industry.

2.4.3 Leadership styles in healthcare

The prevalence of various societal issues underscores the critical necessity for effective leadership styles within the health and social services sectors (Schreuder et al., 2011). Most studies have predominantly employed a qualitative approach, which excluded those that utilise quantitative data or those that evaluated the impact of leadership on healthcare quality measures (Schreuder et al., 2011; Sfantou et al., 2017). Effective management and leadership of healthcare professionals are essential for enhancing quality and care integration.

Guiding a team or group of individuals towards a shared objective, necessitates the organisation and directs their efforts. According to Kouzes & Posner (2002) and Al-Sawai (2013), this influences the relationship between the person or people who choose to lead and those who choose to follow. Productivity in healthcare organisations is primarily contingent upon the delivery of quality care, which is characterised by the likelihood of attaining desired health outcomes in alignment with contemporary professional knowledge and skills in the health sector (Institute of Medicine, 2001; Restivo et al., 2022).

In an emergency, an autocratic leader is considered to be the most suitable, since they are able to readily make decisions without any spending time consulting the workforce (Al-Thawabiya et al., 2023; Sfantou et al., 2017). Good leadership encourages, retains, and supports seasoned employees, indirectly lowering death rates. While the team may not always embrace autocratic leaders, when their leadership produces excellent outcomes, this resistance may eventually turn into respect and loyalty (Al-Thawabiya et al., 2023). Employees are not fond of authoritarian managers, although they do frequently follow their instructions with success (Giltinane, 2013). The results of Uysal et al. (2012) show that when subordinates believe hospital supervisors behave in an authoritarian manner, it lowers overall work productivity.

Research demonstrates that teams flourish when they feel appreciated and acknowledged, indicating that an autocratic approach may have impeded team cohesion during this difficult period (Lluch et al., 2022; Søvold et al., 2021). Autocratic leadership, with its rigid framework, may have been less effective in reacting to the developing demands of teams and patients (Gandrita et al., 2022). The transition to

remote work further complicated matters for autocratic leaders, as maintaining control and oversight became more challenging with dispersed teams. Those leaders who depended significantly on direct supervision likely encountered difficulties in adjusting their management style to a virtual context (Gandrita et al., 2022; Meiryani et al., 2022; Mohamed, 2023).

Democratic leaders' distinctive strategies enhance staff management practices both personally and internally. They lessen uncertainty inside healthcare organisations and encourage cooperative relationships between stakeholders, sharing information and experience. Individuals with various roles, participate in the leadership process by actively outlining essential policy changes and validating and addressing needs (Al-Sawai, 2013; Bornman & Louw, 2023). Democratic leaders in the healthcare industry need collaboration among all stakeholders to create creative policies and procedures.

These partnerships enhance cross-cultural understanding and promote interdependence and integration among various stakeholders (Al-Sawai, 2013; Wang et al., 2022). Achieving a decent basic health status necessitates primary healthcare service organisations that are both affordable and of high quality, emphasising the competencies and skills of healthcare professionals. Leaders are influential in creating high-calibre healthcare professionals. When guiding their members, most leaders in the healthcare industry use a democratic leadership approach (Behera et al., 2022; Restivo et al., 2022; Wang et al., 2022).

The COVID-19 pandemic has significantly influenced democratic leadership, augmenting its importance in promoting collaboration, trust, and empowerment within teams. Nonetheless, the pandemic revealed certain constraints of democratic leadership, especially in circumstances necessitating prompt action (AlMazrouei (2023; Olkowicz & Jarosik-Michalak, 2022). Leaders faced the challenge of balancing inclusivity with the necessity for prompt decision-making, perhaps resulting in frustration among team members who believed their contributions were insufficiently acknowledged (Cremers & Curşeu, 2023).

Despite obstacles in adjusting to remote work and reconciling efficiency with inclusion, the prevailing trend indicates an increasing acknowledgement of the significance of democratic leadership in fostering resilience and innovation during adversity (Cremers

& Curşeu, 2023; Olkowicz & Jarosik-Michalak, 2022). As organisations progress, the insights gained during the epidemic may result in a more enduring focus on participative leadership approaches (Santoso et al., 2022).

Asiri (2016) denotes that since employee involvement produces successful outcomes, transactional leadership theory is equally valuable for health systems. On the other hand, transactional leadership have also proven to be incredibly effective in directing and inspiring others to carry out their jobs with high levels of competency, decreasing chances of errors. It emphasises the application of conditional reward behaviours, which may involve capital requirements (Fletcher et al., 2019; Eberly et al., 2017).

Transactional leaders, who value adherence to rules and procedures, were well-suited to ensure compliance with new criteria (Meiryani et al., 2022). In healthcare environments, transactional leaders mandated that personnel complied with safety regulations, including the use of personal protective equipment (PPE) and the maintenance of social distancing measures (Meiryani et al., 2022; Santoso et al., 2022). This short-term concentration may have compromised long-term strategic planning and team development, as leaders prioritised pressing operational difficulties.

Although democratic leadership relies on in-person encounters and group dialogues, the epidemic compelled leaders to modify their techniques to maintain engagement and communication (Linvill & Onosu, 2023; Lukyamuzi, 2024). This contradiction underscored the imperative for leaders to achieve equilibrium between inclusivity and the requirement for prompt response. Certain leaders modified decision-making processes to facilitate expedited input from team members while maintaining appreciation for their contributions. The COVID-19 epidemic has exerted a complex influence on transactional leadership (Lukyamuzi, 2024; Rathi et al., 2021).

Although it underscored the significance of compliance and immediate performance, it also exposed the shortcomings of this approach in enhancing employee engagement, promoting creativity, and adjusting to remote work. Transactional leaders, who emphasise conformity to regulations and protocols, were adept at ensuring compliance with new directives (Mabitsela et al., 2024; Santoso et al., 2022).

The leadership style that is believed fit the healthcare system the best was transformational leadership. Transformative leadership and final effectiveness are strongly correlated (Al-Thawabiya et al., 2023; Sfantou et al., 2017). Moreover, they claimed that although transformational leaders focus primarily on building a better future, members and leaders who employ transformational leadership are inspired to uplift others and bring about improvements within the organisation (Alrubaysh et al., 2022; Gebreheat et al., 2023).

The impact of COVID-19 on transformative leadership differed among organisations and circumstances. The pandemic often underscored the significance of transformational leadership in managing crises and cultivating resilience (Meiryani et al., 2022; Santoso et al., 2022). Organisations led by transformative leaders frequently saw elevated employee engagement, morale, and adaptability throughout the pandemic. However, the problems created by remote work and the necessity for novel engagement tactics exposed the limitations of transformative leadership in specific scenarios. Leaders must exhibit flexibility and adaptability in their strategies to sustain effectiveness in a swiftly evolving environment (AboInasser et al., 2023; AlMazrouei, 2023; Lukyamuzi, 2024).

The COVID-19 epidemic has profoundly influenced transformational leadership by highlighting the necessity for vision, emotional intelligence, innovation, and collaboration (AboInasser et al., 2023). While it reinforced the success of this leadership style in creating resilience and adaptation, it also provided obstacles that required leaders to change their techniques to retain engagement and connection with their teams (Santoso et al., 2022). As firms move forward, the lessons acquired during the pandemic may lead to a more persistent emphasis on transformational leadership techniques that promote employee well-being and organizational adaptability(AboInasser et al., 2023; Al-Thawabiya et al., 2023).

Decisions are communicated downward by bureaucratic leaders through top-down organisational structures. This methodical technique guarantees dependable and effective decision-making (Marbell, 2024). The hospital's management might use this to ensure collaboration among the departments. To regulate employee behaviour and maintain consistency in procedures, bureaucratic leadership depends on a set

guidelines, regulations, and Standard Operating Procedures (Lynn, 2022; Marbell, 2024)

In healthcare, the hierarchical structure of bureaucratic leadership is distinct and well-defined, with varying tiers of power and accountability (Marbell, 2024). Within healthcare, this hierarchical structure aids in creating a chain of command and defining positions. Based on their knowledge and experience, bureaucratic leaders frequently give their staff members specialised jobs and responsibilities; this is essential in a healthcare system. Efficiency is ensured through this specialisation (Marbell, 2024; Njaramba, 2024; Revisto et al., 2022).

The bureaucratic leadership style transitioned from a top-down, directive model to a more communicative and empathetic approach, as leaders needed to assist employees in adapting to remote work settings (Monteiro & Adler, 2021). Bureaucratic systems in healthcare and government were required to make critical decisions under tight deadlines. Health departments, for instance, were required to respond swiftly regarding lockdowns, vaccine distribution, and the implementation of emergency measures (Dela Gente et al., 2022; Sanjaya & Sajiyo, 2024). Historically, bureaucratic executives prioritised formal power, control, and a rational, process-oriented methodology. The epidemic underscored the significance of empathy and emotional intelligence in leadership.

This transition was experienced throughout multiple tiers of government and organisations. Leaders were required to reconcile the maintenance of productivity and performance with the support of their teams' emotional needs, particularly amid pervasive illness, social distancing, and financial strain (Monteiro & Adler, 2021; Sanjaya & Sajiyo, 2024). The epidemic transformed bureaucratic leadership into a more human-centered and emotionally intelligent approach, moving away from basic rule enforcement and tight control. The pandemic compelled bureaucratic leaders to exhibit greater adaptability, empathy, and decisiveness amid uncertainty (Kanon, 2023).

It emphasised the necessity of balancing control with the promotion of innovation. The transition involved not only a change in leadership style but also a fundamental re-examination of bureaucratic operations, prompting a re-evaluation of conventional

practices and the adoption of innovative approaches to thinking, collaboration, and leadership (Kanon, 2023). The magnitude of these changes differed by sector and region; however, it is unequivocal that the pandemic expedited the evolution of bureaucratic leadership, resulting in enduring impacts on organisational operations and governance in the post-pandemic era (Morrison-Smith & Ruiz, 2020; Sanjaya & Sajiyo, 2024).

According to situational leadership, the best way to lead a group of people varies according to their degree of growth or readiness (Njaramba, 2024). Situational leaders in the healthcare industry modify their style of leadership in response to the unique requirements and competencies of their team members. Situational leaders in the healthcare industry understand that there is no one-size-fits-all method for managing hospitals. Instead, they adjust their leadership approach to suit the unique requirements and developmental stage of healthcare practitioners (Alsaqqa, 2020; Rabarison et al., 2013).

Situational leaders may use a variety of leadership behaviours, such as giving guidance, coaching, supporting, or delegating, depending on the circumstances and the skill and dedication of healthcare practitioners (Rabarison et al., 2013). This approach fosters the development of both individual and team performance by assisting leaders in becoming more adaptable and responsive, especially during medical emergencies/crises (Rabarison et al., 2013; Thompson & Glasø, 2018).

Situational leaders must use technology, place trust in their staff, and refrain from micromanagement, while maintaining clear communication and supplying sufficient resources (Aleem et al., 2023; Martin, 2024). Emotional intelligence emerged as a crucial attribute of effective leaders throughout the epidemic. Leaders were required to oversee both work performance and well-being, tailoring their strategies to the specific needs of each team members. Leaders were required to continually reevaluate their tactics on employee safety, business continuity, and productivity maintenance (Lundqvist & Wallo, 2023; Musaigwa, 2023).

This necessitated adaptability in leadership approaches, alternating between a more directive style when clarity was essential and a more delegative one as teams grew increasingly self-sufficient (Sharma, 2024). Leadership needed to prioritise the

upskilling and development of personnel for remote work, digital technologies, and novel collaboration methods. Leaders needed to deliver ongoing feedback to sustain productivity while assuring employees were at ease with new technologies (Martin, 2024).

The epidemic heightened the necessity for leaders to be adaptive, emotionally astute, and responsive to evolving situations. Situational Leadership served as a crucial foundation during COVID-19, enabling leaders to navigate both operational and emotional issues amid uncertainty (Aleem et al., 2023). The degree of influence differed according on industry, organisational scale, and particular issues encountered; however, the necessity for adaptation, trust, and empathy emerged as fundamental in leadership practices throughout the crisis (Aleem et al., 2023; Martin, 2024; Sharma, 2024).

2.4.4 Critical synthesis of the literature review

The coronavirus pandemic has significantly impacted multiple sectors, including healthcare, where rehabilitation therapists have had to modify their leadership styles to address new problems (van Biljon & van Niekerk, 2022; Crain et al., 2021; Lukyamuzi, 2024). This literature review critically synthesises pertinent sources to examine how the pandemic has transformed leadership strategies among rehabilitation therapists, emphasising significant themes and deficiencies in the current research.

A common subject in the literature is the transition to transformational leadership during the pandemic. A study by Santoso et al. (2022), indicates that rehabilitation therapists employing transformational leadership styles were more proficient in inspiring their teams and cultivating resilience throughout adversity. This leadership approach prioritises inspiration, intellectual stimulation, and personalised attention, which were crucial for sustaining team morale and patient care standards during the crisis (Bagga et al., 2023; Tsapnidou et al., 2024).

Matsunaga (2024) contends that transformational leaders were more adept at managing the swift alterations in practice protocols and the emotional impact of the epidemic on both personnel and patients. In contrast, certain studies underscore the difficulties of implementing transformative leadership in a high-pressure setting (Matsunaga, 2024). Ystaas et al. (2023) discovered that although numerous

therapists aimed to lead with empathy and vision, the significant pressures of the epidemic frequently resulted in a more transactional leadership style.

This style, marked by an emphasis on task execution and adherence, may have been an essential reaction to the urgent demands of the crisis but also jeopardise long-term team unity and creativity (Khan et al., 2020). The authors propose that dependence on transactional leadership during the pandemic may have hindered inventiveness and adaptability, which are vital attributes for rehabilitation therapists in a swiftly evolving healthcare environment (van Biljon & van Niekerk, 2022; Santoso et al., 2022; Ystaas et al., 2023).

A major element of the literature is the function of communication in leadership during the pandemic. Effective communication has been identified as a crucial element of successful leadership, as noted by Chen & Cojocaru, 2023. Research reveals that leaders who maintained open communication with their teams were more effective in addressing issues, communicating information about evolving norms, and establishing a feeling of community (Bauwens et al., 2024; Marbun et al., 2023).

Nonetheless, the research identifies substantial obstacles to communication, including remote work and heightened workloads, which impede leaders' capacity to engage with their teams successfully (Bauwens et al., 2024; Chen & Cojocaru, 2023). This gap highlights the necessity for additional investigation into communication tactics that can improve leadership efficacy in virtual environments (Santoso et al., 2022). Furthermore, the literature indicates a deficiency of variation in the research about leadership styles among rehabilitation therapists.

Previous studies have focused on particular geographical areas or healthcare environments, hence constraining the generalisability of their results (Günzel-Jensen et al., 2018). Many studies focus on the experiences of therapists in metropolitan hospitals, although there is a scarcity of research concerning those employed in rural or neglected regions (Coombs et al., 2022).

This gap is crucial, as leadership problems may vary considerably depending on the context in which rehabilitation therapists' function (Kelly & Herald, 2020). Subsequent research should endeavour to encompass a wider array of contexts and demographics to yield a more thorough comprehension of leadership dynamics throughout the epidemic (Coombs et al., 2022; Khaw et al., 2023).

2.5 Summary

The impact of the coronavirus was discussed in this chapter, as well as its effects on South Africa and medical professionals. It examined the modifications and alterations made to the workplace. This chapter discussed how the coronavirus pandemic has impacted rehabilitation therapists locally and worldwide. It was also talked about how the coronavirus affected leadership. Both leadership theory and the contrast between management and leadership were covered. The seven leadership styles were examined through the prism of healthcare.

CHAPTER 3: METHODOLOGY

3.1 Introduction

In the preceding chapter, the researcher reviewed previous literature that focused on the coronavirus pandemic, leadership styles, healthcare and rehabilitation therapists. Methodology is a broad research approach that outlines the proper study technique (Creswell & Creswell, 2018; Saunders et al., 2009). In addition to supporting the selection of research methodologies, it comprised of a set of philosophical presumptions and beliefs that influenced the understanding of the research questions (Saunders et al., 2016; Žukauskas et al., 2018).

This chapter elucidates the methodology followed to ensure that the research aims and objectives are achieved during the investigation. This chapter determined the method of data collection, sampling strategies and procedures. The study population, research instruments and design were also determined. The validity and reliability of the research as well as the methods of data analysis were studied.

3.2 Research design

This research study selected a quantitative, non-experimental, descriptive survey research design. “A quantitative method examines a sample from a population using numerical depictions of that population's trends, attitudes, or opinions. It encompasses cross-sectional or longitudinal studies that generalise findings from a sample to the community through questionnaires” (Creswell & Creswell, 2018, p.41).

The descriptive design aimed to characterise all the variables to respond to the research question by describing the characteristics of a situation (Leedy & Omrod, 2015). In this study, the survey was used to define variables such as styles of management used, the effect of COVID-19 on leadership styles and the leadership styles perceived to be suitable for future pandemics/crises.

In any research study, the research methodology plays a crucial role in guaranteeing coherence among selected instruments, approaches, and fundamental principles (Khan et al., 2023; Saunders et al., 2019). The theoretical idea of the "research onion" (Figure 3-1), which was put forth by Saunders et al. (2016), served as the foundation for one technique for creating research methodologies. The research onion offered a

rather exhaustive explanation of the primary levels or steps that need to be completed to create a methodology that works (Melnikovas, 2018).

The research methodology began with defining the primary philosophy, selecting approaches, methods, and strategies, and setting time horizons (Creswell, 2012; Khan et al., 2023). According to Žukauskas et al. (2018) and Melnikovas (2018), these steps collectively carried the research logic to the research design, which included the primary methods and procedures for gathering and analysing data (see Figure 3-1).

In this dissertation, the paradigm selected was positivism (see Figure 3-1), as the study used observed reality in society to generate generalisations. In general, positivism emphasises the value of what was supplied, emphasising the consideration of pure data and facts free from human bias (Myers, 2008; Saunders et al., 2009). The deductive approach was selected in this dissertation. A social theory was the foundation of the deductive method, which used facts to test its predictions (Creswell, 2012; Saunders et al., 2019).

The researcher reviewed previous research, examined theories chose to explain the phenomenon, and then tested theories-derived hypotheses (Borgstede & Scholz, 2021; Saunders et al., 2019). The methodological choice for this study was the mono-method quantitative (see Figure 3-1), and the strategy was a survey design. The time horizon for this study was short-term; a specific sample was chosen, and a questionnaire (Appendix B) was developed for this dissertation. Overall, a summary of how the research onion was applied in this study was discussed.

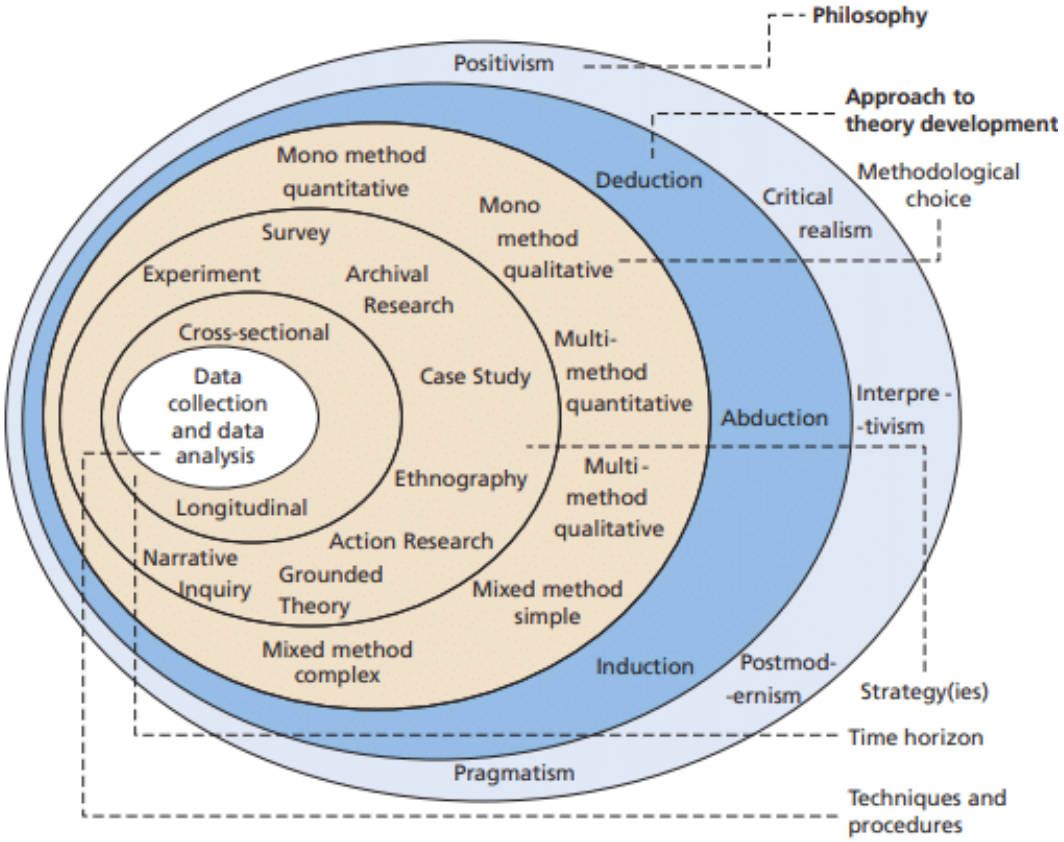

Figure 3-1: The Research Onion

Source: The Research Onion (Saunders et al., 2019, p. 174)

3.3 Research setting

Data was collected from leading rehabilitation therapists affected by the COVID-19 outbreak and registered with the Health Professions Council of South Africa (HPCSA). Regulation, direction, and public protection are the responsibilities of the HPCSA for registered healthcare practitioners. (Health Professions Council of South Africa, 2023). The survey was conducted online, and a voluntary and self-administered online questionnaire was provided. No organisation was approached as the study was voluntary, it had no in-person measurements, and gatekeeper permission was not required.

3.4 Population and sample of the study

The population to be studied was originally 377 rehabilitation therapists in the context of their leadership styles, and the manner in which they were affected by COVID-19. However, only 234 respondents were acquired, due to non-compliance from potential respondents and time constraints. The sampling method selected was the stratified random sampling which is a probability technique. This selection method was chosen because the researcher wanted to specifically recruit HPCSA-registered rehabilitation therapists impacted by COVID-19 (van Biljon & van Niekerk, 2022; Daniel, 2011).

The constraint of the study is the time frame to conduct the analysis. Due to the time given, the focus was only on managing rehabilitation therapists registered with HPCSA. The limitation was, therefore, excluding other health professionals in other independent councils.

3.5 Sample size

Potential respondents depended on the number of leading rehabilitation therapists responding to the questionnaire (Appendix B). According to the HPCSA's 2020/2021 annual report, "HPCSA registered more than 18000 rehabilitation therapists"- (Health Professions Council of South Africa, 2023). The sample size was calculated at a confidence level of 95%, with a population size of 18000 and a margin of error of 5%; the sample size was approximately 377 respondents. Due to time constraints and non-compliances, there were only 234 respondents in total.

3.6 Sampling strategy

Potential respondents were emailed a Google Docs link and a document that requested their participation in the study. The link had a section where the respondents were asked whether they agreed to participate. When the respondent agreed, there was an informed consent section for their perusal and approval. The document included a summary of the study.

3.7 Respondent selection criteria

The following selection criteria were used to select respondents for the study:

3.7.1 Inclusion criteria

- The respondents had to be a leading rehabilitation therapist registered with the Health Professions Council of South Africa.

- The respondents had to be rehabilitation therapists in management positions during the COVID-19 pandemic.

- The respondents could be in any sector if they were practising rehabilitation therapists.

3.7.2 Exclusion criteria

- Rehabilitation therapists who were not in management during the COVID-19 pandemic.

- Rehabilitation therapists who were not registered with HPCSA.

- The study was only available to rehabilitation therapists in South Africa.

3.8 Construction of the survey instrument

The researcher developed the questionnaire. The online questionnaire was used as the data collection method (Google Docs). A questionnaire was an effortless way to obtain data from large groups of people (Creswell & Creswell, 2018). The researcher ensured that the questionnaires were completed using online software. The weaknesses of using an online questionnaire to collect data included the following (Creswell & Creswell, 2018):

- Respondents may have delegated to their juniors to fill in their online questionnaire on their behalf due to unavailability.
- Respondents may have randomly selected answers without reading the online questionnaire due to insufficient time available.
- Respondents could have answered what they believed to be socially acceptable instead of answering honestly.

3.9 Data collection method

The data gathering approach was a survey design, as data was collected using an online questionnaire (Appendix B) on Google Docs. The questionnaire was developed by the researcher to address the study's aim and objectives. The data was collected from June- August 2024. The online questionnaire allowed specific information to be collected from respondents. The online questionnaire had four sections with only close-ended questions.

The questions were presented in a (numbers one to five) Likert scaling method, Yes/No and multiple-choice. The format of the Likert scale was self-explanatory and produced a very trustworthy result. Moreover, it was easy to read and said to be complete, as per the perspective of the respondents (Taherdoost, 2019), the online questionnaire collected demographic and clinical data.

The demographic data included age, race, gender, level of education, the number of employees, and the type of leadership position of the respondent (see Table 3-1). The clinical data collected related to the 'effect of COVID-19 on the leadership styles' of rehabilitation therapists, leadership styles used by rehabilitation therapists before the coronavirus pandemic and the perceived leadership styles suitable for future pandemics/crises (see Table 3-1). The online questionnaire was in English.

Table 3-1: Online Data Collection Instrument

Section	Motivation
1. Demographic information	Demographic information was required to obtain vital information regarding the respondents (Polgar & Thomas, 2013), such as age, gender, socio-economic status, level of education, number of employees and the profession. This was essential to the nature of the study as these factors influenced the leadership styles of the respondents.
2. Type of leadership styles used before the COVID—19 pandemic	This study only focused on seven "modern" leadership styles. The leadership styles were autocratic, democratic, transactional, transformational, charismatic, bureaucratic and situational. The researcher sought to acquire the leadership styles implemented by rehabilitation therapists in SA before the COVID-19 pandemic, as data on that specific population is currently unavailable.
3. Impact of the COVID-19 pandemic on leadership styles	The researcher wished to know the impact of COVID-19 on the leading rehabilitation therapists in SA during the COVID-19 pandemic. This information highlighted the most effective leadership styles for crises such as the COVID-19 pandemic for the population that was studied.
4. Perceived leadership styles suitable for future pandemics/crises	The researcher wished to know the perceived leadership styles for rehabilitation therapists that may be used to fight future pandemics/crises in a South African context. This information was vital as it will guide future health leaders.

3.10 Data analysis

According to Creswell (2012), quantitative data analysis involves systematically collecting and evaluating verifiable and measurable data. For numerical data, it has a statistical assessment or analysis method. There were three significant steps in data analysis, data preparation, descriptive statistics and inferential statistics (Trochim, 2006).

3.10.1 Data preparation

This entailed verifying that the data was accurate and recording a database structure incorporating multiple measures (Baldwin et al., 2022; Trochim, 2006). The researcher automatically captured the data from Google Docs onto a Microsoft Excel spreadsheet.

3.10.2 Descriptive statistics

Information was summarised or presented in a quantifiable, understandable manner by utilising descriptive statistics along with quantitative data analysis (Simister & James, 2020; Yellapu, 2018). The analytical method aids in the presentation and summarisation of an observation by researchers (Kaliyadan & Kulkarni, 2019; Simister & James, 2020). Researchers employ this statistical technique as it helps them create a defence for quantification.

The researcher used the services of a statistician to transfer the raw data into descriptive statistics. Using a statistical programme, the statistician classified the data into minimum and maximum medians. There were Yes/No questions, the (one to five) Likert scale, and multiple-choice questions. The scores for the several types of management styles, percentages for the effect of COVID-19 on leadership styles, and overall item count were used to measure perceptions.

3.10.3 Inferential statistics

Inferential statistics assesses the research questions, models, and hypotheses (Trafimow & MacDonald, 2017). The population's beliefs were inferred from the sample data using inferential statistics, where the evaluation done determined whether a difference between groups observed in this study was accurate or could have happened by accident (Guetterman, 2019; Kothari, 2004).

Inferential statistics was used to examine the research questions, models and hypotheses (Fiandini et al., 2024; Taherdoost, 2019). Inferential statistics were employed to draw conclusions from the sample data regarding the population's perspectives and to assess the likelihood that an observed difference between groups was significant rather than a result of random variation in this study (Cooksey, 2020; Fiandini et al., 2024). The conclusions made from inferential statistics expanded

further than the immediate data. As a result, it was used to make inferences from the data collected in this research to universal conditions (Kumar & Tyagi, 2024).

The analysis was done using the statistical software – Statistical Package for the Social Sciences (SPSS) and categorised the data into frequencies of occurrences and percentages (Masuadi et al., 2021). The Likert scale, Yes/No questions and multiple-choice questions were used (Cooksey, 2020). The type of leadership styles used before the COVID-19 pandemic, the impact of the COVID-19 pandemic on leadership styles, and the perceived leadership styles suitable for future pandemics/crises were all described in percentages and frequencies of occurrence.

3.10.3.1 Chi-square goodness-of-fit-test

A univariate test is employed on a categorical variable to assess whether any of the answer options are chosen notably more or less frequently than others (Hazra & Gogtay, 2016; Hess & Hess, 2017). Underneath the null hypothesis, it is posited that all responses are selected with equal probability.

3.10.3.2 Chi-square test of independence

Utilised in cross-tabulations to determine the presence of a significant relationship between the two variables depicted in the cross-tabulation (McHugh, 2013). The Chi-square test demonstrates robustness regarding data distribution. It does not require the variances among the research groups to be equal or for the data to exhibit homoscedasticity. This method facilitates the evaluation of dichotomous independent variables as well as studies involving multiple groups.

3.10.3.3 ANOVA

The univariate analysis of variance (ANOVA) is a statistical technique utilised to determine whether data drawn from multiple groups are from populations with equivalent means (Mishra et al., 2019). The ANOVA test is based on the comparison of two variance estimates: one reflecting variation due to differences among groups and the other due to inconsistencies within groups (Carvalhos et al., 2022; Mishra et al., 2019). ANOVA was used to analyse data in this study.

3.10.3.4 Welch t- test

Mean comparison serves as the focal point of numerous classical statistical methodologies. Welch’s t-test is typically favoured when the variances of two

independent populations' means are unequal (Lu & Yuan, 2010; West, 2021). When both populations exhibit a normal distribution, Welch derived the approximate t distribution. The approximation may be influenced by non-normal distributions, particularly by the third central moments in smaller sample sizes (West, 2021).

3.10.3.5 Spearman's correlation

This method quantifies how ordinal variables or rank orders are related. A correlation coefficient quantifies the relationship between two quantitative or categorical variables (Alsaqr, 2021; Schober et al., 2018). The coefficient quantifies the strength of the relationship between two variables. Associated variables exhibit concurrent changes; an alteration in one variable prompts a corresponding change in the second, either in the same or opposite direction (Janse et al., 2021).

Correlation is a widely utilised statistical method. This test is extensively utilised in medical studies to investigate diagnosis, prognosis, and to predict normative parameters for reference measurements (Janse et al., 2021; Schober et al., 2018).

3.10.3.6 One sample t-test

This one sample t-test tests whether a mean score is significantly different from a scalar value. The perceptions were analysed using the one-sample t-test, mean effectiveness score (Al-kassab, 2022). This analysed the relationship between the agreement of suitability and demographic variables.

3.10.3.7 Independent Sample t-test

The independent sample t-test is a parametric method used to determine whether two sample means are equivalent, with samples being independent when the selection of respondents in one group does not affect the selection in another group (Kim, 2015; Gerald, 2018). The one-sample test aims to see whether there is a substantial difference between the average agreement score and the central score of 3.

When a significant difference ($p<.05$) occurs, a mean score of >3 indicates a significant agreement, whereas a score of <3 indicates a significant disagreement. It indicates that there is neither considerable agreement nor significant disagreement and that the results are not further discussed if it is not significant ($p>=.05$).

Once the data was gathered, it was possible to see whether and to what extent the research question could be answered (Fiandini et al., 2024). This was utilised to draw

inferences from the data gathered in this research to universal conditions since the conclusions drawn from inferential statistics expand beyond the immediate facts (Khan et al., 2023; Paparistodemou & Meletiou-Mavrotheris, 2008). It was possible to determine whether and to what extent the research question was answered once data was acquired (Guetterman, 2019; Kothari, 2004).

3.10.4 Data management

The data management process involved converting the data collected using data collection tools into electronic data (Murphy, 2024; Neelima et al., 2024). While developing a database, the researcher considered the ease of setting up and maintaining data entry screens and efficiently storing and retrieving all data required for the study.

The database allowed for changes to be made to the data. It could not delete data entries without recording it in order to maintain an audit trail for the data. The database was secure, with an appropriate password-protected access to prevent unauthorised access to the data, and included a list of individuals permitted to change the data (Neelima et al., 2024; Roratto & Dias, 2014).

3.10.5 Data coding

Before data entry into the database, the questionnaire responses were coded using a numerical format for analysis (Guetterman et al., 2015). These codes were decided upon before data entry began, e.g. code 1 for a positive response. Codes were also in place for answers such as ‘not effective’, e.g. 2 (Dash et al., 2019).

3.10.6 Data entry

Previous research highlighted that manual data collection and management has been associated with inaccuracies, time consumption, and expense (Gangopadhyay et al., 2024; Mehto, 2023). However, due to their intrinsic benefits of increased efficiency, accuracy, and strengthened data security, current digital tools have radically replaced conventional pen and paper data collection methods in the previous one to two decades (Gangopadhyay et al., 2024; Safaei Pour et al., 2023). Data was downloaded from Google Docs to an Excel spreadsheet, and the statistician conducted the data entries.

3.10.7 Data cleaning and validation

An integral part of the data management process was validation to ensure that an accurate 'clean' data set was provided for the statistical analysis (Emanuelson & Egenvall, 2013; Singh, 2023). Since the researcher used software enabled for automatic data entry checks, the statistician involved in the study put a document together. The document provided full details of the data entry checks that were set up; all checks were also tested (Mariño et al., 2021).

3.11 Validity

3.11.1 Internal validity

The degree to which all the available data supported the interpretation of the test results is known as validity. (Creswell, 2012; Leung, 2015). The researcher checked the validity of the questionnaire's scores, not only the questionnaire itself. The researcher determined the data's reliability by examining past studies that employed questionnaires and published scores (Johnson et al., 2020).

3.11.2 External validity

The magnitude to which the research results were applied to circumstances outside the study is known as external validity. In other words, how broadly findings may be applied to various situations (Johnson et al., 2020; Leedy & Omrod, 2005). External validity was crucial to this quantitative research study since the researcher wanted to claim that the findings could be generalised. The researcher could extrapolate results to a larger group across populations, leadership fields, settings/contexts, and time (Steckler & McLeroy, 2008).

Quantitative research findings were based entirely on a sample (e.g. 244 leading rehabilitation therapists registered with the HPCSA). The researcher examined the information gathered regarding the respondents' answers to the questionnaires in the case of the 244 rehabilitation therapists who made up the sample. The objective was to ascertain whether the researcher's sample-based conclusions applied to the populace.

The researcher remained confident that the deductions derived from the study were applicable to most health leaders (more generally) than only the 244 rehabilitation

therapists in the sample; the study was generalised. To be confident that this is the case, the researcher ensured that the sample closely reflected the studied population (Leedy & Omrod, 2005). This required assurance that the sample shared characteristics with the population, such as the types of leadership styles used, the effects of COVID-19 on leadership styles, and their perceptions regarding appropriate future leadership styles for crises.

3.12 Reliability

According to Creswell (2012), reliability refers to the stability and consistency of the questionnaire's results. When the researcher presented the online questionnaire more than once at various times, the results were identical (Sürücü & Maslakci, 2020). Having dependable measures was the main objective of this study; the questions were unambiguous and explicit, and the administration procedures were standardised to assure the reliability of the questionnaire (Creswell, 2012 quoted Rudner, 1993; Elo et al., 2014).

A statistician assisted in constructing the questionnaire to ensure standardisation and reliability. The researcher regularly scrutinised the study instrument to detect and eradicate any ambiguity (Elo et al., 2014). An informative document outlining this study was emailed to respondents to familiarise them with the details of this study (Stumke et al., 2023). The literacy level of the respondents was sufficient as all the respondents were professionals. The language was entirely in English which could be easily understood by all the respondents as they were all professionals (Stumke et al., 2023).

Inter-rater reliability (IRR) is used to measure ‘agreement’ reliability. It basically measures the respondents’ agreements when rating specific items or people (Ranganathan et al., 2017; Zhao et al., 2022). Inter-rater reliability is commonly used for observational purposes and professional judgements, in this study – we looked at judgements made about the effectiveness and suitability of leadership styles (Lopez et al., 2023; Zhao et al., 2022). This was applicable to this study for q13 (suitability of styles) and q14 (effectiveness of styles). The reliability of the respondents was rated by agreement, which determined whether the reliability of the results were in agreement (Lubenets & Miroshnikov, 2023; Ranganathan et al., 2017).

3.12.1 Kendall’s Coefficient of Concordance W

Kendall's Coefficient of Concordance, W, quantifies the level of agreement among multiple judges who rank several entities. This ratio indicatesd the variability of total ranks among ranked entities relative to the maximum possible variability; a lower ratio suggested a lack of consensus among judges (Field, 2005; Lubenets & Miroshnikov, 2023).


How to interpret Kendall's coefficient of concordance?

Rules

1. 0.00 <= w < 0.20 - Slight agreement.
2. 0.20 <= w < 0.40 - Fair agreement.
3. 0.40 <= w < 0.60 - Moderate agreement.
4. 0.60 <= w < 0.80 - Substantial agreement.
5. w >= 0.80 - Almost perfect agreement.

Figure 3-2 Interpretation of Kendall's W

Source: Kendall’s Coefficient of Concordance (Field, 2005)

Table 3-2: Kendall's W Test-Suitability of leadership styles

Ranks

	Mean Rank
13.1 Autocratic	1.37
13.2 Democratic	3.75
13.3 Transactional	4.34
13.4 Transformational	4.88
13.5 Charismatic	3.57
13.6 Bureaucratic	3.66
13.7 Situational	6.42

Table 3-3: Test Statistics -Suitability of leadership styles

Test Statistics

N	234
Kendall's W[a]	**.632**
Chi-Square	887.619
Df	6
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

So, there is substantial agreement (K-W = .632) which indicates a substantial 'agreement' reliability (see Figure 3-2).

Table 3-4: Kendall's W Test- Effectiveness of leadership styles

Ranks

	Mean Rank
14.1 Autocratic	1.25
14.2 Democratic	3.43
14.3 Transactional	4.32
14.4 Transformational	4.85
14.5 Charismatic	3.83
14.6 Bureaucratic	3.84
14.7 Situational	6.48

Table 3-5: Test Statistics-Effectiveness of leadership styles

'Test Statistics'

N	234
Kendall's W[a]	**.649**
Chi-Square	910.708
Df	6
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

Similarly, K-W = .649, indicated substantial agreement / reliability (see Figure 3-2). This indicated that the researcher could rely on the responses to these questions.

3.13 Ethical considerations

Saunders et al. (2019) asserted that ethics is a fundamental component for researchers aiming to conduct successful research projects. Research must be conducted with careful consideration of the safety and dignity of respondents throughout the entire process, from inception to completion and beyond publication (Barrow et al., 2022). In this study, the researcher obtained ethical clearance (Appendix F) from the University of KwaZulu Natal's Research Ethics Committee prior to approaching respondents and commencing data collection.

An amendment to the title (Appendix E) was made by the researcher. An informed consent letter (Appendix C) was provided to each respondent, detailing the study's title, purpose, and objectives. The letter was included at the start of the online questionnaire to inform respondents of the nature of the research.

3.13.1 Non-maleficence

The definition of non-maleficence is "do no harm." (Favaretto et al., 2020). The researcher should not cause any harm in any way to the respondent. This was ensured by the researcher by avoiding unnecessary stress and anxiety inflicted onto the respondents (Favaretto et al., 2020).

3.13.2 Confidentiality

According to Trochim (2006), confidentiality means that the identifiable information about respondents collected during the process of research will not be divulged (deliberately or accidentally) without permission (Bos, 2020). The study respondents were assured that the identifying information will not be made available to anyone.

3.13.3 Storage of data

The researcher ensured that the data was stored safely and securely, and only the researcher was able to access the data. Computer files containing personal or identifiable data were password-protected (Kang & Hwang, 2023).

3.13.4 Informed consent

The procedures and challenges associated with the research were explained to the research respondents, and their agreement was required (Wiles et al., 2008).

Additionally, ethical guidelines demand that the researcher refrains from putting subjects in danger (Barrow et al., 2022; Trochim, 2006).

3.13.5 Honesty

According to Zhaksylyk et al. (2023), honesty refers to being fair and trustworthy. The researcher maintained the highest standards of ethics by divulging all necessary information to the respondents. The researcher did not display any dishonesty in reporting and interpreting results (Barrow et al., 2023).

3.13.7 Right to withdraw

Research respondents had the right to withdraw from the research process at any stage without penalty (Barrow et al., 2023; Trochim, 2006; Zhaksylyk et al., 2023). When a respondent opted to withdraw from the research procedure, the researcher had no intention to pressure or force them to remain in the study (Zhaksylyk et al., 2023).

3.13 Summary

This chapter examined the research methodology adopted for the study. This encompassed data collection methods, sampling strategies and techniques, the study population, research instruments and design, validity and reliability assessments, data analysis methods, study limitations, and ethical considerations. The subsequent chapter presented the study's results.

CHAPTER 4: RESULTS

In the preceding chapter, the researcher examined the technique utilised in this study, along with the processes of data collation and summarisation in anticipation of interpretation. This chapter aimed to provide and interpret the research findings to evaluate the impact of the COVID-19 pandemic on the leadership style of rehabilitation therapists. The results were presented using descriptive and inferential statistics based on the research study objectives.

Where appropriate, standard deviations and means were included in descriptive statistics, and tables and graphs displayed frequencies (Cooksey, 2020; Yellapu, 2018). For inferential statistics, a univariate test was applied to a categorical variable, the chi-square test of goodness, which determined whether any response option is chosen significantly more or less frequently than the others. All responses are equally selected under the null hypothesis (Cain et al., 2017; Hess & Hess, 2017).

The chi-square test of independence was utilised in cross-tabulations to determine whether a significant relationship exists between the two variables included in the cross-tabulation. When conditions are not met, Fisher's exact test is used (Aslam & Arif, 2024; Nasri & Rémillard, 2024; Rost, 2024). According to Murphy (2024), the ANOVA test is employed for multiple independent samples to compare two or more groups concerning a single variable. ANOVA was used to analyse data in this study.

Spearman's correlation assesses the relationship between ordinal variables or rank orders and was employed in this investigation (Okoye & Hosseini, 2024; Othman et al., 2024). The one-sample t-test was also included; it tests whether a mean score significantly differs from a scalar value (Kumar & Tyagi, 2024; Montijn et al., 2023). Lastly, the independent samples t-test test was used to compare two independent groups of cases (Fiandini et al., 2024; Langenberg et al., 2023).

The sample size was calculated at a confidence level of 95%, with a population size of 18000 and a margin of error of 5%; the sample size' was approximately 377 respondents. Therefore, there were 377 prospective respondents for the research study. Due to non-compliance and time constraints, 133 prospective research respondents did not participate. The research study respondents comprised of 234 respondents who qualified to complete the entire questionnaire. Therefore, there were 234 respondents, which was a response rate of 62%.

4.1 Demographics of research respondents

This section included respondents' age, gender, educational level, employment status, employment sector, profession, and language(s) spoken.

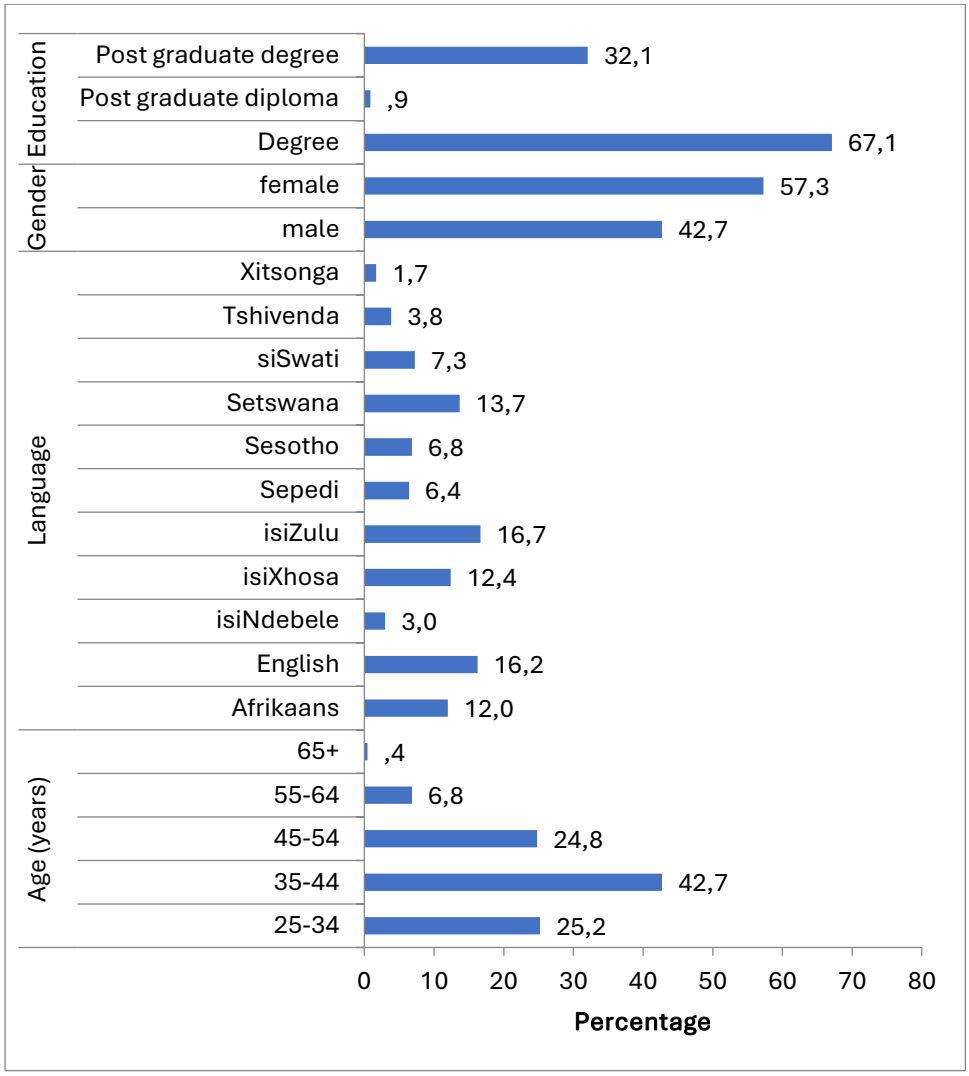

Figure 4-1: Demographics of the sample

Also included in this section were the time frames for management and the number of employees the rehabilitation therapists managed.

4.1.1 Age

Most of the sample (67,9%) were under 45 (see Figure 4.1).

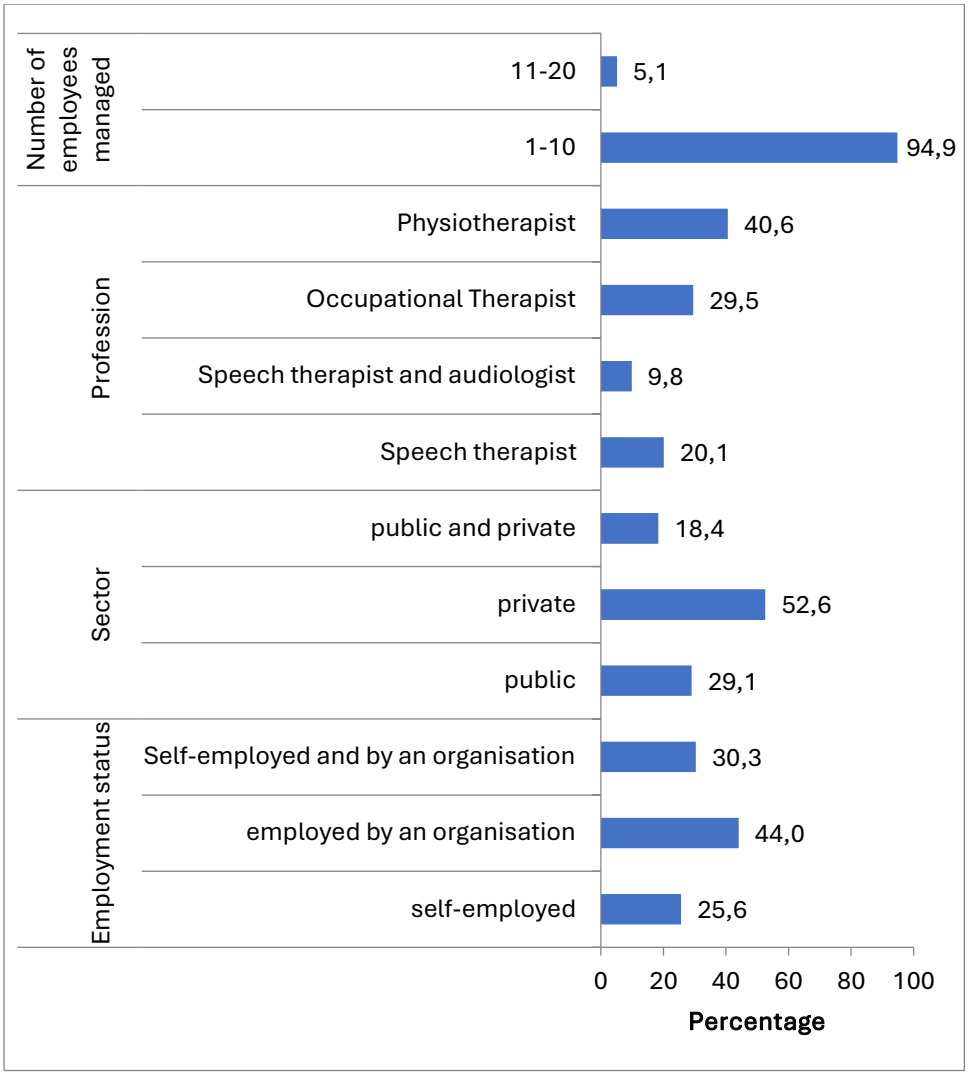

Figure 4-2: Demographics of the sample

4.1.2 Language(s) spoken

Most of the sample (50%+) were English, isiZulu, Setswana and Afrikaans first-language speakers. There was, however, a myriad of languages among rehabilitation therapists (see Figure 4-1).

4.1.3 Educational level

In terms of their level of education, 67,1% of rehabilitation therapists received at least a bachelor's degree, with 32,1% achieving a postgraduate degree (see Figure 4-1).

4.1.4 Employment status

Regarding the rehabilitation therapist's employment status (see Figure 4-2), the majority (44,0%) were employed by an organisation.

4.1.5 Employment sector

A large proportion of the sample (52,6%) were in the private sector (Figure 4-2).

4.1.6 Profession

Physiotherapists and Occupational Therapists dominated the sample with a staggering 70,1% (see Figure 4-2).

4.1.7 Number of employees

Interestingly, 94,9% of leading practitioners had 1-10 employees in this study (Figure 4-2).

4.1.8 Time frames for management

100% of rehabilitation therapists were in leadership positions before and during the coronavirus pandemic.

4.2 Type of leadership styles used before the coronavirus pandemic

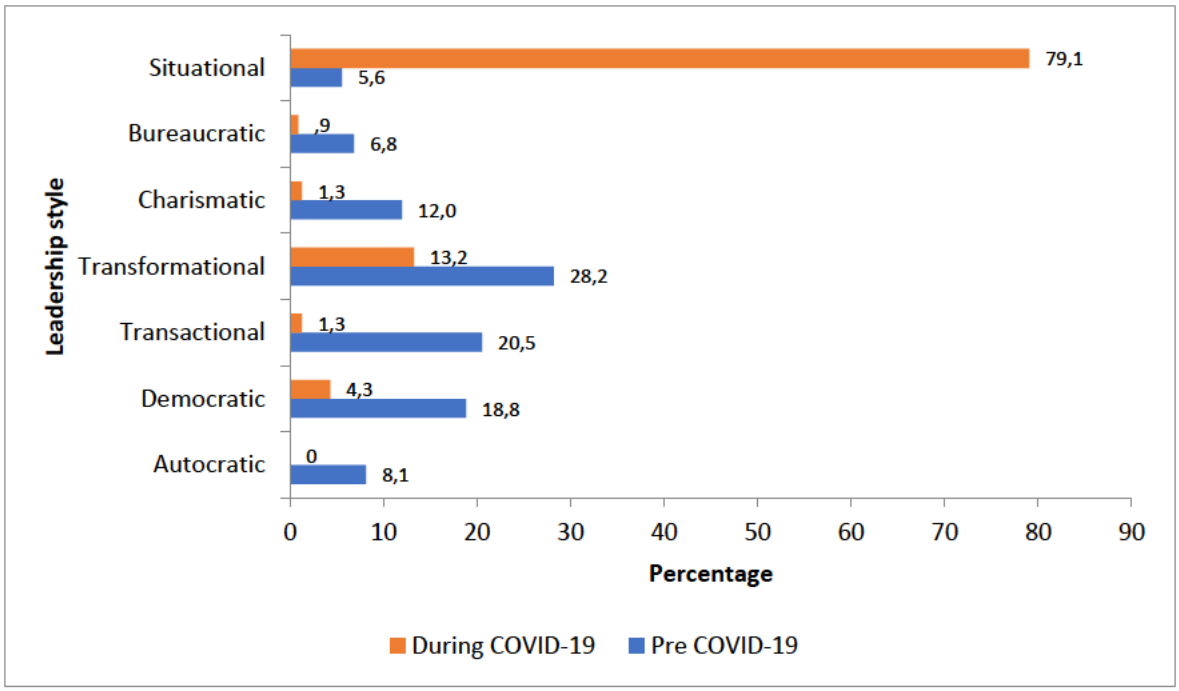

Figure 4-3: Type of leadership styles

4.2.1 Leadership styles used the most before the coronavirus pandemic

The majority of the sample (67,5%) used the transformational, transactional and democratic leadership styles before COVID-19 (see Figure 4-3). In terms of the less popular leadership styles, 8,1% of rehabilitation therapists reported that they used the autocratic leadership style. 6,8% of rehabilitation therapists used the bureaucratic style and 5,6% used the situational leadership style. This information is presented in Figure 4-3 above.

4.2.2 Leadership styles used the most during the coronavirus pandemic

Regarding the situational leadership style, 79,1% of rehabilitation therapists preferred this and 13, 2% used the transformational leadership style. Less popular choices (Figure 4-3) included democratic leadership style (4,3%), transactional and charismatic (1,3% each). Only 0,9% of rehabilitation therapists preferred the bureaucratic leadership style.

4.3 The effectiveness of leadership styles before and during the COVID-19 pandemic

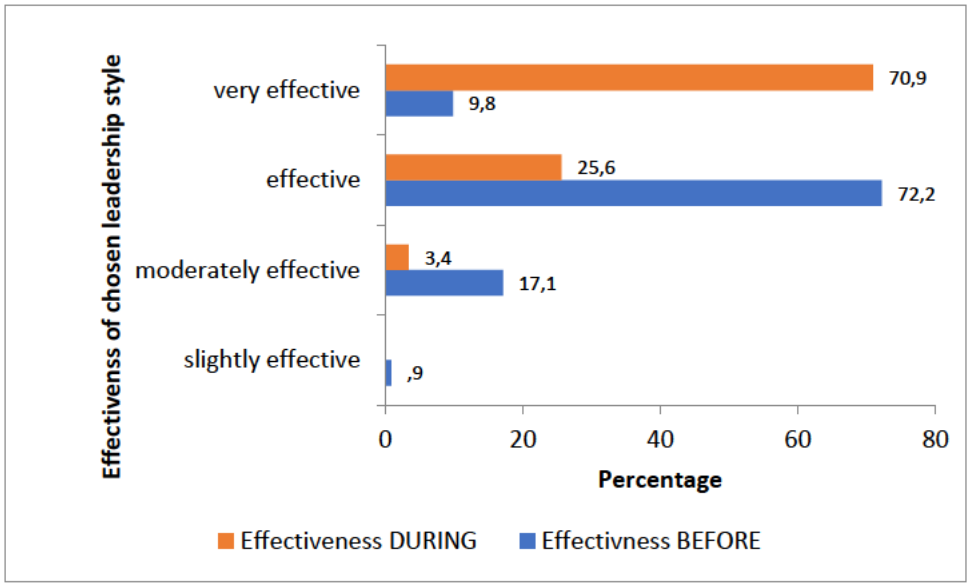

Figure 4-4: Effectiveness of chosen leadership style

Regarding the leadership styles used before the coronavirus pandemic, 72,2% of respondents reported that their leadership style was effective. During the pandemic, 70,9% of rehabilitation therapists reported that their style of choice was very effective (see Figure 4-4). Rehabilitation therapists (25,6%) reported that their leadership style had been effective; Figure 4-4 illustrates the above.

Table 4-1: Effectiveness of chosen leadership style before the coronavirus pandemic in frequencies

Before COVID-19	Responses as Frequency (%)				Total
	Slightly effective	Moderately effective	Effective	Very effective	
Autocratic	0	3 (15.8)	15 (78.9)	1 (5.3)	19 (100.0%)
Democratic	**2 (4.5%)**	**11 (25.0%)**	30 (68.2%)	1 (2.3%)	44 (100.0%)
Transactional	0	3 (6.3%)	**42 (87.5%)**	3 (6.3%)	48 (100.0%)
Transformational	0	13 (19.7%)	48 (72.7%)	5 (7.6%)	66 (100.0%)
Charismatic	0	6 (21.4%)	19 (69.9%)	3 (10.7%)	28 (100.0%)
Bureaucratic	0	4 (25.0%)	11 (68.8%)	1 (6.3%)	16 (100.0%)
Situational	0	0	4 (30.8%)	**9 (69.2%)**	13 (100.0%)
Total	2	40	169	23	**234**

There was a significant relationship between the leadership style used before COVID-19 and its effectiveness, $p<.001$. In particular, a significant proportion (see Table 4-1) of the respondents rated the democratic style as slightly or moderately effective;

transactional was rated effective by a significant proportion; and situational was rated very effective by a significant proportion.

Table 4-2: Effectiveness of chosen leadership style during the coronavirus pandemic-in frequencies

During COVID-19	Responses as Frequency (%)			Total
	Moderately effective	Effective	Very effective	
Democratic	0	**7 (70.0%)**	3 (30.0%)	10 (100.0%)
Transactional	0	**3 (100.0%)**	0	3 (100.0%)
Transformational	0	**19 (61.3%)**	12 (38.7%)	31 (100.0%)
Charismatic	0	**2 (66.7%)**	1 (33.3%)	3 (100.0%)
Bureaucratic	**1 (50.0%)**	0	1 (50.0%)	2 (100.0%)
Situational	7 (3.8%)	29 (15.7%)	**149 (80.5%)**	185 (100.0%)
Total	8	60	166	**234**

There was a significant relationship between the leadership style used during COVID-19 and its effectiveness, p<.001. A significant proportion rated bureaucratic as moderately effective; democratic, transactional, transformational and charismatic as effective; and situational as very effective, p<.001 (see Table 4-2).

4.4 Perceived leadership style suitable for future pandemics/crises

The degree to which each style was appropriate for future pandemics was analysed to see if there was a significant agreement or disagreement. This aided in determining the suitability of leadership styles. A chi-square goodness-of-fit test was applied to determine which level(s) of effectiveness were perceived to apply to each leadership style. This was noted by a significant proportion of the respondents.

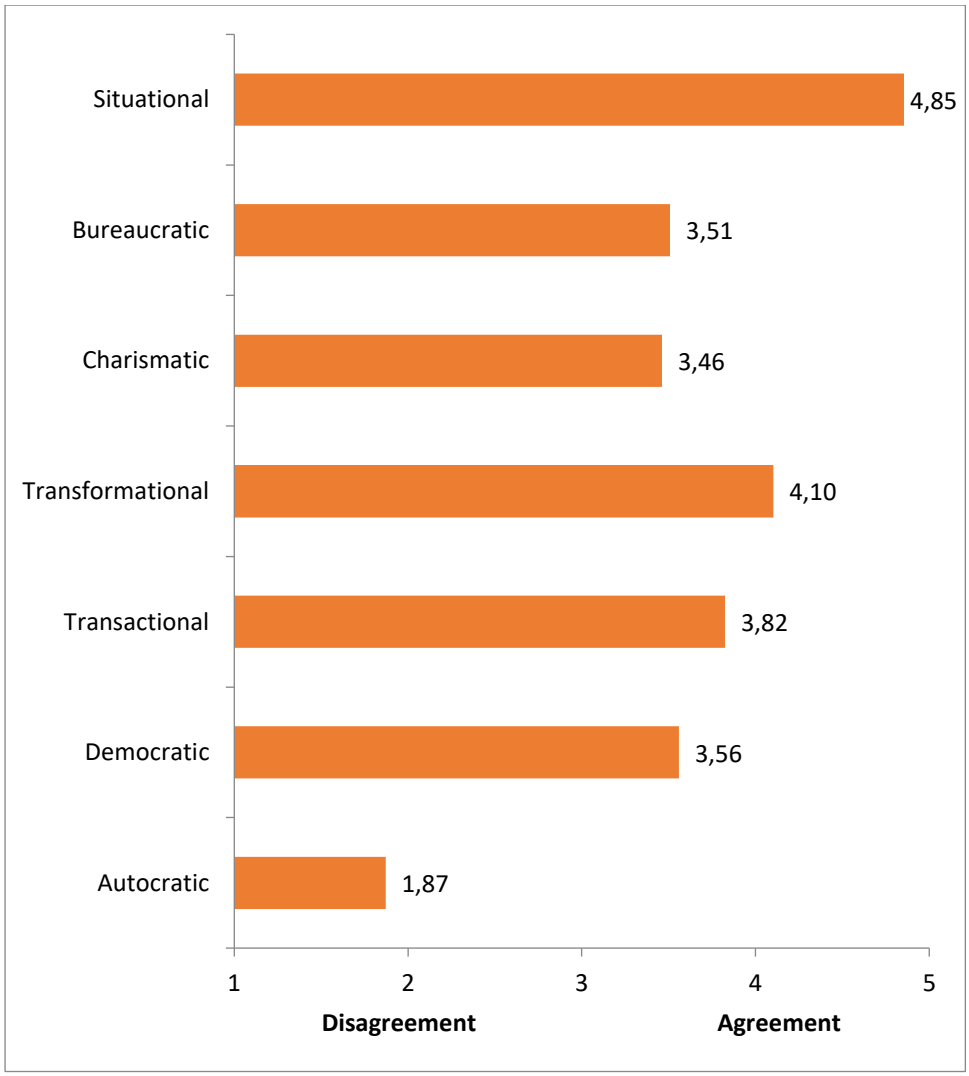

Figure 4-5: Suitability of leadership styles for future pandemics/crises

The results showed significant disagreement that the autocratic style is suitable for future pandemic situations and significant agreement that all other styles are suitable for future pandemic situations (see Figure 4-5).

Table 4-3: Perceived leadership style suitable for future pandemics

Item	Responses as Frequency (%)										
	Not at all effective	Not that effective	Slightly effective	Moderately effective	Effective	Very effective	Total (%)	Total	X^2	df	p-value
Autocratic	**124 (53.0)**	**55 (23.5)**	43 (18.4)	7 (3.0)	5 (2.1)	-	100%	234	200.274	4	<.001
Democratic	4 (1.7)	19 (8.1)	**67 (28.6)**	**66 (28.2)**	**57 (24.4)**	21 (9.0)	100%	234	97.077	5	<.001
Transactional	2 (0.9)	8 (3.4)	23 (9.8)	**67 (28.6)**	**111 (47.4)**	23 (9.8)	100%	234	225.897	5	<.001
Transformational	2 (0.9)	5 (2.1)	12 (5.1)	**49 (20.9)**	**117 (50,0)**	**49 (20.9)**	100%	234	244.564	5	<.001
Charismatic	7 (3.0)	13 (5.6)	**36 (15.4)**	**74 (31.6)**	**84 (35.9)**	**20 (8.5)**	100%	234	134.410	5	<.001
Bureaucratic	5 (2.1)	13 (5.6)	**39 (16.7)**	**70 (29.9)**	**88 (37.6)**	19 (8.1)	100%	234	143.436	5	<.001
Situational	0	0	4 (1.7)	4 (1.7)	**35 (15.0)**	**191 (81.6)**	100%	234	411.094	5	<.001

The results (see Table 4-3) revealed that the autocratic leadership style was 'not at all' or 'not that effective' for pandemic situations; democratic leadership was considered 'slightly effective', 'moderately effective', or 'effective'. The transactional leadership style was 'moderately effective' or 'effective', and the transformational leadership style was reportedly 'moderately effective', 'effective' or 'very effective'. For pandemics, the charismatic leadership style was 'slightly effective', 'moderately effective' or 'effective', and the bureaucratic leadership style was considered 'slightly effective', 'moderately effective' and 'effective'. Last but not least, rehabilitation therapists reported that the situational leadership style was predominantly 'effective' and 'very effective'.

4.4.2 Mean Effectiveness Score

The mean effectiveness score was determined and used to rank the styles according to perceived efficacy. The results are shown in Table 4-4 below.

Table 4-4: Mean Effectiveness Score

Leadership style	Mean effectiveness
Situational	5.76
Transformational	4.8
Transactional	4.48
Bureaucratic	4.2
Charismatic	4.18
Democratic	3.92
Autocratic	1.78

This ordered list showed that situational was perceived as the most effective leadership style for a pandemic. The autocratic style was considered not to be effective. The remaining styles are all perceived to be relatively effective. The questions on ‘suitability’ and ‘effectiveness’ tell the same story.

4.4.3 Relationship between agreement of suitability and demographic variables

An analysis of the 'suitability' items was conducted in order to determine whether there was any significant relationship between the agreement of suitability and demographic variables. For the categorical demographic variables, ANOVA or Independent samples t-test is applied. Spearman's correlation was applied to ordinal demographic variables.

4.4.3.1 Gender

Results from an independent samples t-test indicated that males (mean = 4.25) agreed significantly more than females (mean = 3.99) that transformational style is suitable for pandemic situations, t (204.986) = 2.857, p=.005.

4.4.3.2 Sector

Results from ANOVA indicated that respondents who work in different sectors have significantly different perceptions of the suitability of the democratic style in a pandemic situation, F (2, 321) = 5.861, p=.003. Results from Tukey's post hoc test indicated that those in the private sector (mean = 3.71) agree significantly more than those in the public sector (mean = 3.35) that the democratic style is suitable (p=.003).

4.4.3.3 Profession

Results from the Welch test indicated that those from different professions perceived the suitability of the situational style differently, Welch (3, 71.889) = 4.174, p=.009. Post hoc analysis using the Games-Howell test showed that OTs (mean = 4.96) agreed significantly more than speech and hearing therapists (mean = 4.61) that situational is suitable in a pandemic situation (p=.046).

4.4.3.4 Age and number of employees managed

Results from Spearman's correlation indicated that a weak positive correlation exists between age and agreement that the transactional style suits a pandemic situation, rho =.183, p=.005. A greater number of agreements were associated with higher age.

4.5 Summary

This chapter's objective was to provide the research study's findings. According to the sample, the results of the data gathered from the questionnaire showed a variety of leadership styles used before COVID-19. The transformational, transactional and democratic leadership styles were the most common. During the coronavirus pandemic, most respondents used the situational leadership style. The effectiveness of chosen leadership styles before COVID-19 was moderately effective. During COVID-19, most respondents reported that the chosen leadership was effective or very effective.

Respondents reported that the transformational, transactional and democratic leadership styles were the effective styles. Rehabilitation therapists reported that the situational leadership style was the most effective during the coronavirus pandemic. The perceived suitability of leadership styles for pandemics/crises was analysed using a chi-square goodness-of-fit test, which revealed that most respondents chose the situational leadership style.

CHAPTER 5: DISCUSSION

5.1 Introduction

This chapter presents the discussion of the study. The preceding chapter reported the study's findings based on the data obtained. The general responses provided by the respondents validated that a change in leadership styles was brought about by the COVID-19 pandemic. A variety of leadership styles were employed prior to the coronavirus pandemic, with transformational leadership emerging as the most popular approach.

While most leadership styles were employed during the COVID-19 pandemic, respondents generally agreed that the situational leadership style was the most effective during a pandemic. Due to the pandemic's impact, situational leadership emerged as increasingly popular as it was perceived to be "very effective." For future pandemics, rehabilitation therapists clearly agreed that the situational leadership style will be the best.

The following section discusses the study's key findings:

5.2 Objective 1 & 2: Type of leadership styles used before the coronavirus pandemic

According to the results of the study, many rehabilitation therapists used a variety of leadership styles prior and during the coronavirus pandemic. The results of this study are similar to research conducted by AlMazrouei (2023) and du Plessis & Keyter (2020) which identified the use of multiple leadership styles before the COVID-19 pandemic.

Regarding the leadership style that was most prevalent prior to the COVID-19 pandemic, the transformational leadership style was noted as the most common according to it receiving the highest percentage in this study (28,2%). Various leadership styles have been employed over the years (Gebreheat et al., 2023). The leadership style that was believed to fit the healthcare system the best was transformational leadership. Transformative leadership and final effectiveness are strongly correlated (Sfantou et al., 2017). Regarding the transformational leadership style, most respondents reported that their leadership style was effective.

The study by Kellish (2014), indicated that physiotherapists frequently viewed themselves as practitioners of the transformational leadership style. Furthermore, they viewed themselves as effective in their clinical education role, capable of motivating team members to exert additional effort, and noted that team members expressed satisfaction with their leadership styles (Kellish, 2014).

A significant number of respondents in this study, implemented the transactional leadership style before COVID-19. These findings indicated that the transactional leadership style exhibited a more robust positive correlation with leadership outcomes (Spinneli, 2006). Transactional leadership is exhibited intermittently, except for the consistent demonstration of contingent reward behaviour. These findings align with earlier research by Bass (1990), Bass & Avolio (1994) and Spinelli (2006).

The democratic leadership style was also useful for a handful of rehabilitation therapists in South Africa. Democratic leaders in the healthcare industry need collaboration with all stakeholders to create creative policies and procedures. These partnerships enhance cross-cultural understanding and promote interdependence and integration among various stakeholders (Al-Sawai, 2013; Wang et al., 2022).

In summary, in this study, most rehabilitation therapists used the transformational, transactional and democratic leadership styles prior to the coronavirus pandemic. The above was crucial information for analyzing whether a drastic shift in the type of leadership styles, was present during COVID-19. The impact of the coronavirus pandemic on rehabilitation therapists was further discussed in the next section.

5.3 Objective 1: Type of leadership styles used during the coronavirus pandemic

During the COVID-19 pandemic, the situational leadership style was the most predominant which corroborated with studies that support this notion. A convergent crisis can be managed by integrating components of multiple leadership styles since no single style could possess all the necessary traits (Ajemba, 2022; Hughes et al., 2018; du Plessis & Keyter, 2020).

The coronavirus epidemic significantly altered the leadership methods adopted by rehabilitation therapists. The respondents shifted from predominantly employing transformational, transactional, and democratic leadership styles to adopting the

situational leadership style. This transition ascribed to the extraordinary challenges presented by the epidemic, necessitating flexibility, adaptability, and a sophisticated comprehension of the diverse requirements of both clients and personnel (AlMazrouei, 2023; Babar et al., 2023).

The situational leadership style proved effective in environments marked by rapid change and uncertainty, enabling leaders to respond to the immediate needs of their teams (Nonaillada & Martin, 2022). Rehabilitation therapists, encountering challenges related to remote service delivery, modified patient interactions and sought innovative therapeutic approaches. They discovered that situational leadership enabled a more responsive and effective management style (Alabduljader, 2022; Rabarison et al., 2013).

Leaders can enhance team effectiveness by evaluating the readiness and capabilities of their members, thereby offering suitable levels of direction and support (Kleynhans et al., 2022). This may involve providing additional guidance to less experienced staff or empowering seasoned therapists to take the initiative in creating new treatment modalities (Kleynhans et al., 2022). Furthermore, the situational leadership paradigm fosters resilience within teams. By cultivating an environment in which therapists feel supported and comprehended, leaders may improve team morale and cohesion, which are essential during crises (Karimi et al., 2023).

This adaptability benefits therapists and enhances patient care, as therapists are more prepared to address the varied requirements of their clients in a constantly evolving environment (Knutsen Glette et al., 2023). The COVID-19 pandemic has profoundly transformed the leadership dynamics across multiple sectors, including healthcare and rehabilitation services. Research studies have increasingly underscored the efficacy of situational leadership during this crisis, highlighting its adaptability and response to the distinct challenges presented by the epidemic (Knutsen Glette et al., 2023; Simpson et al., 2021).

Nonaillada & Martin (2022) analysed leadership styles in hospitals during the COVID-19 pandemic. The study (Nonaillada & Martin, 2022) discovered that leaders utilising situational leadership were more adept at managing their teams throughout the crisis. This technique enabled leaders to evaluate the distinct requirements of their personnel and patients, adjusting their strategy according to the circumstances. This study

determined that situational leadership enhanced communication, elevated team morale, and improved patient outcomes by enabling leaders to offer customised assistance and direction (Crain et al., 2021).

Research increasingly indicates that situational leadership is especially effective in addressing the challenges posed by the coronavirus pandemic. Research indicates that this leadership style improves adaptability, facilitates effective communication, and strengthens team resilience (Aslam et al., 2022). Organisations recovering and adapting to the post-pandemic landscape may find the principles of situational leadership to be a valuable framework for leaders aiming to guide their teams through ongoing uncertainties and challenges. Situational leadership's focus on flexibility and responsiveness, makes it a vital approach for effective leadership during crises (Alabduljader, 2022; Aslam et al., 2022).

5.4 Objective 2: Effectiveness of chosen leadership style

5.4.1 Effectiveness of chosen leadership style before the coronavirus pandemic

This study revealed that 72,2% of respondents reported that their leadership style was effective before COVID-19, followed by 17,1% who reported that their leadership style was moderately effective. Rehabilitation therapists in this study (9,8%) revealed that their leadership style had been very effective before the COVID-19 pandemic, and 0,9% indicated that it had been slightly effective. Regardless of where they reside, everyone has the right to the best health attainable (World Health Organisation, 2024b).

The transformational leadership style has been extensively acknowledged as beneficial in several healthcare environments, including rehabilitation treatment, prior to the COVID-19 pandemic (Santoso et al., 2022). This leadership style prioritizes inspiration, encouragement, and the growth of team members, cultivating an environment that promotes collaboration and innovation. Numerous studies have underscored the appropriateness of transformational leadership for rehabilitation therapists, illustrating its beneficial effects on team relationships, patient outcomes, and professional development (Bornman & Louw, 2023; Santoso et al., 2022).

A previous study (Cummings et al., 2018), investigated the influence of leadership styles on healthcare teams, and it revealed that transformational leadership correlated with increased job satisfaction and team effectiveness. The researchers observed that transformative leaders cultivated an atmosphere of trust and transparent communication, which is essential in rehabilitation contexts where therapists must collaborate closely with each other and with patients (Cummings et al., 2018). Transformational leaders can improve the overall effectiveness of rehabilitation teams by fostering a collective vision and facilitating professional development.

Additionally, a study conducted by Pascal et al. (2017) concentrated on rehabilitation professionals and their views on leadership styles. The results revealed that numerous therapists favoured transformational leadership due to its focus on collaboration and empowerment. Therapists expressed heightened engagement and motivation when collaborating with transformational leaders, this promoted joint initiatives and participation in decision-making. This interaction is crucial in rehabilitation, as therapists frequently encounter intricate obstacles necessitating inventive solutions.

A significant number of respondents thought that the transactional style was effective before the coronavirus pandemic. The transactional style aids leaders in recognizing the difficulties that their team members face, where being proactive can assist team members in achieving objectives and standards (Ramadhanti et al., 2021). Transactional leaders set up appropriate systems, offer incentives and rewards, and consider workers' demands while making decisions (Odumeru & Ogbonna, 2013).

Bass & Avolio (1994), conducted a study that emphasised the efficacy of transactional leadership within healthcare environments, and indicated that it promotes a clear comprehension of roles and responsibilities among team members. Transactional leadership can improve performance in rehabilitation therapy by establishing specific goals and rewards for therapists, which is essential for adherence to treatment protocols and measurable outcomes (Aarons, 2006). This systematic method may enhance patient outcomes, as therapists are incentivised to achieve predefined benchmarks.

5.4.2 Effectiveness of chosen leadership style during the coronavirus pandemic

The rehabilitation therapists reported that the leadership styles used before the pandemic were ‘effective’ According to this study, most rehabilitation therapists (70.9%) said their leadership style worked well during the COVID-19 pandemic, while 25.6% said their leadership style was only effective during COVID-19. This indicated a positive result as the literature correlates with this study’s findings, the frequency of effectiveness is predominantly high. A leader's strategy and style of leadership can have a significant role in handling a crisis such as the COVID-19 pandemic (du Plessis & Keyter, 2020).

Great leaders eventually foster a safe, trusting environment for crisis management and control by guarding individuals and promoting connection and cooperation (Akter & Islam, 2023). Another study initiative examined the emotional intelligence of leaders during the pandemic. The results demonstrated that leaders employing situational leadership were more adept at managing the emotional issues encountered by their teams (Coronado-Maldonado & Benítez-Márquez, 2023; Ikart, 2023).

Acknowledging the varied levels of stress and anxiety across personnel, leaders may modify their leadership approach to offer requisite assistance, either by authoritative direction for those who are overwhelmed or by empowering seasoned staff to take up initiatives (Ikart, 2023; Linvill & Onosu, 2023). This adaptability was essential for sustaining a unified and motivated workforce amid uncertainty.

Brion & Kiral (2021) conducted a study examining the educational sector, highlighting the transition of numerous rehabilitation therapists to remote service delivery. This study indicated that situational leadership proved to be particularly effective in this context, as leaders were required to rapidly adapt to emerging technologies and communication methods. The study indicated that leaders utilising situational leadership effectively assessed their team's readiness for change, offering targeted training and resources to facilitate a smooth transition (Brion & Kiral, 2021). This approach improved service delivery effectiveness and promoted a sense of agency among team members.

A significant portion of the respondents evaluated the democratic approach as slightly or moderately effective. Democratic leaders work with team members, not against

them, and treat everyone in the same manner rather than trying to control them. In the end, they see themselves more as mentors than as directors (Biloa, 2023; Northouse, 2021). Due to its ability to give lower-level employees inside the business a voice and significance, democratic leadership is widely acknowledged as a very effective leadership style (Bwalya, 2023).

The situational leadership style was reportedly ‘very effective’ during the coronavirus pandemic. Findings from a study by Adigwe et al. (2024), support and expand upon established leadership theories, including transformational and situational leadership styles, by emphasizing the adaptive characteristics of leadership in crisis situations (Adigwe et al., 2024).

5.5 Objective 2: Perceived leadership style suitable for future pandemics/crises

This study highlighted the limitations of the autocratic leadership style in managing future pandemic situations, while demonstrating significant support for alternative leadership styles such as transformational, situational, and democratic leadership. Bwalya (2023) highlighted that autocratic leadership, marked by centralised decision-making and restricted team input, may impede creativity and adaptability, which is an essential element in crisis management.

Leaders who utilised inclusive styles during the COVID-19 pandemic were more adept at responding to rapidly changing circumstances and promoting team resilience (Cummings et al., 2018; Santoso et al., 2022). This study indicated that organisations under transformational leadership, characterised by the ability to inspire and motivate teams, demonstrated greater success in managing the complexities of the pandemic. A systematic review by Santoso et al. (2022), highlighted the effectiveness of transformational and situational leadership styles during crises.

The review demonstrated that these styles enhance flexibility, innovation, and team engagement, which are critical for effective crisis response. Leaders who modify their strategies according to the requirements of their teams and the prevailing circumstances demonstrated greater success in navigating challenges during the pandemic (Fagerdal et al., 2022).

Huang et al. (2022) emphasised that democratic leadership promotes ownership and accountability among team members, which is essential in times of crisis. Research findings demonstrated that teams under democratic leadership exhibited elevated satisfaction and performance levels, thereby reinforcing the effectiveness of inclusive leadership styles in uncertain contexts.

This study and the literature indicated considerable disagreement about the appropriateness of the autocratic leadership style in future pandemic scenarios. In contrast, there is a strong consensus that transformational, situational, and democratic leadership styles are more effective in promoting adaptability, collaboration, and resilience during crises.

This study indicated that situational leadership is perceived as the most effective leadership style during pandemic situations, while the autocratic style is viewed as ineffective. Additionally, other leadership styles, such as transformational and democratic, are considered relatively effective.

Aslam et al. (2022) conducted a study on leadership styles in healthcare during the COVID-19 pandemic and revealed that situational leadership proved to be particularly effective. The researchers observed that leaders who modified their strategies according to the distinct requirements of their teams and changing situations exhibited superior crisis management capabilities. This adaptability facilitated enhanced communication and support, which are essential during a pandemic.

Sanders & Balcom (2021) indicated that the autocratic leadership style was regarded as ineffective. Leaders employing a top-down approach faced challenges in team engagement and adaptability to the rapidly evolving environment. This finding is consistent with Mehraein et al. (2023), which highlighted that autocratic leadership may inhibit creativity and collaboration, which are crucial elements in crisis management.

A systematic review by Porkodi (2022), supported the conclusion that situational leadership is particularly effective in pandemic contexts. The review demonstrated that leaders utilising situational leadership exhibited greater success in promoting team resilience and adaptability. Although transformational and democratic leadership styles proved effective, situational leadership was particularly notable for its adaptability in responding to the distinct challenges presented by a pandemic.

The literature supported the results of this study in that situational leadership (70.9%), was regarded as the most effective management style during pandemics, whereas the autocratic style was considered ineffective. Alternative leadership styles, such as transformational and democratic, are acknowledged for their effectiveness, underscoring the importance of adaptability and responsiveness in crisis contexts. The enquiries into 'suitability' and 'effectiveness' produce analogous conclusions, highlighting the significance of adaptable leadership in addressing intricate challenges.

5.6 Summary

This chapter presented the research results utilising descriptive and inferential statistics while addressing the research objectives through pertinent literature on the topic. The following chapter concluded the study by presenting recommendations and identifying potential areas for future research to further explore the subject matter.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The previous chapter discussed the results, referencing pertinent literature, on the subject. This chapter presented the concluding findings of this study, examining the effects of the coronavirus pandemic on the leadership styles of rehabilitation therapists in South Africa. The findings demonstrated a notable change in leadership strategies in response to the distinct challenges presented by the pandemic. Before the pandemic, the transformational leadership style was primarily employed, noted for its emphasis on inspiration, motivation, and team collaboration. The pandemic's demands required a shift to situational leadership, which became the predominant leadership style during this period. This chapter examined these findings comprehensively, and were underpinned by pertinent literature, as well addressed implications for future leadership in rehabilitation therapy.

6.2 Key findings

The aim of this study was to assess the impact of the coronavirus pandemic on the leadership styles of rehabilitation therapists in South Africa. The three objectives of this study were to assess the impact of the coronavirus pandemic on the leadership styles of rehabilitation therapists. This study aimed to determine perceived leadership styles suitable for future crises such as the COVID-19 pandemic and to provide suitable recommendations for future crises such as the COVID-19 pandemic

According to the results of this study, prior to the emergence of the coronavirus pandemic, transformational leadership was the predominant style utilised by rehabilitation therapists in South Africa. This leadership style promotes trust, collaboration, and a shared vision, which are vital in rehabilitation settings where teamwork significantly impacts patient outcomes. Bass & Avolio (1994) provided evidence for the efficacy of transformational leadership in healthcare, emphasizing its impact on job satisfaction and team performance.

Rehabilitation therapists would experience empowerment and motivation when led by transformational leaders, resulting in a positive work environment and enhanced patient care. The pandemic presented unique challenges, necessitating quick adaptation and flexibility in leadership strategies. As the situation evolved,

rehabilitation therapists increasingly adopted situational leadership, which highlighted the necessity for leaders to adjust their approach according to the specific context and the preparedness of their team members.

This change aligns with the findings of Adigwe et al. (2024), who observed that situational leadership was especially effective in addressing the complexities of the COVID-19 crisis. Leaders utilizing this approach effectively evaluated their teams' needs and delivered customized support, thereby promoting resilience and adaptability in a dynamic environment. This study's results were consistent with the literature indicating that situational leadership is the most effective management style in pandemic contexts.

Porkodi (2022) and Aslam et al. (2022) highlighted that situational leadership facilitates flexibility and responsiveness, which are essential attributes in crisis situations. The autocratic leadership style was regarded as ineffective during the pandemic. Sanders & Balcom (2021) noted that autocratic leaders frequently face challenges in team engagement and adaptability to changing conditions, potentially impeding effective crisis management.

Additionally, in this study- alternative leadership styles, including transformational and democratic leadership, were recognised for their efficacy in promoting collaboration and innovation. Huang (2022) demonstrated that democratic leadership fosters ownership and accountability among team members, which is essential in crisis situations. The adaptability and responsiveness characteristic of these leadership styles highlight their significance in managing future pandemic.

The coronavirus pandemic has significantly influenced the leadership styles of rehabilitation therapists in South Africa. The shift from transformational leadership to situational leadership indicated a requirement for flexibility and adaptability in managing crises. This study’s findings were corroborated by existing literature, which demonstrated the effectiveness of situational leadership in pandemics and emphasised the limitations of autocratic leadership.

Rehabilitation therapists need to adopt adaptable leadership styles to enhance team dynamics and ensure optimal patient in anticipation for future crises. Future research needs to further investigate the changing dynamics of leadership within healthcare, especially in relation to persistent global challenges.

6.3 Recommendations

The study's findings on the impact of the coronavirus pandemic on the leadership styles of rehabilitation therapists in South Africa yielded several recommendations for improving leadership effectiveness in future crises.

6.3.1 Prioritise situational leadership training

Considering the demonstrated effectiveness of situational leadership during the pandemic, rehabilitation organisations need to allocate resources towards training programs aimed at enhancing situational leadership competencies among therapists and leaders. This training should encompass strategies for evaluating team readiness, adjusting leadership styles to address specific requirements, and promoting open communication. Equipping leaders with these skills enables organisations to improve their capacity to respond effectively to future crises (Aslam, 2022).

6.3.2 Foster a culture of flexibility and adaptability

Organisations should develop a culture that prioritises flexibility and adaptability in leadership practices. Encouraging leaders to remain receptive to feedback and consistently evaluate the evolving needs of their teams and patients, can facilitate this process. Creating an environment that prioritises adaptability can enhance rehabilitation therapists' preparedness to address unforeseen challenges (Fagerdal et al., 2022).

6.3.2 Integrate various leadership principles

Although situational leadership is essential in crises, the significance of the other leadership styles must not be disregarded. Organisations have to promote leadership that inspires and motivates teams, cultivating a collective vision and dedication to patient care. Regular team-building activities, recognition programs, and opportunities for professional development that align with transformational leadership principles can facilitate this achievement. Organisations need to establish frameworks that promote collaborative decision-making, enabling rehabilitation therapists to share their insights and expertise. This approach enhances team morale and facilitates more informed and effective decision-making during crises.

6.3.3 Implement regular leadership assessments

Organisations should conduct periodic evaluations of leadership effectiveness, especially regarding crisis management. Team member feedback offers critical insights into the effectiveness of various leadership styles and aids in pinpointing areas for enhancement. This continuous assessment will allow organisations to enhance their leadership strategies and ensure responsiveness to team needs.

6.3.4 Develop peer support networks

Establishing peer support networks among rehabilitation therapists can improve resilience and collaboration during crises. These networks facilitate the exchange of experiences, best practices, and coping strategies, thereby enhancing the overall leadership capacity within the organisation.

6.3.5 Research and continuous learning

Organisations must engage in continuous research and learning regarding leadership styles and their effectiveness across different contexts. Staying informed about emerging trends and best practices in leadership enables rehabilitation therapists to enhance their methodologies and effectively prepare for future challenges.

The shift from transformational to situational leadership during the pandemic underscores the necessity for rehabilitation organisations to adopt adaptable and responsive leadership approaches. Implementing these recommendations enables organisations to improve leadership effectiveness, thereby enhancing patient care and team dynamics in future crisis situations.

6.4 Limitations of the study

This study offers important insights into the effects of the coronavirus pandemic on the leadership styles of rehabilitation therapists in South Africa; however, several limitations must be recognised.

6.4.1 Sample size and diversity

This study may have been constrained by the sample size and respondent diversity. If the sample did not accurately represent the wider population of rehabilitation therapists across various countries or settings, the findings may lack generalisability. An expanded sample may yield a broader understanding of leadership styles in

different contexts. The study lacked diversity as it excluded other healthcare professionals.

6.4.2 Self-reported data

The dependence on self-reported data from respondents may lead to bias. Respondents may have offered responses indicative of their perceptions of effective leadership, rather than their actual experiences. This may result in discrepancies between perceived and actual leadership practices.

6.4.3 Focus on specific leadership styles

Although this study concentrated on seven leadership styles, it may not have thoroughly examined other pertinent styles, such as servant leadership or authentic leadership. An extensive analysis of diverse leadership styles may provide further understanding of their efficacy in crisis contexts.

6.4.4 Contextual factors

This research study may not have adequately addressed the contextual factors that influence leadership styles, including organisational culture, resource availability, and external pressures. The factors that significantly influence leaders' responses to crises and may differ across various rehabilitation settings.

6.4.5 Geographical focus

This study's emphasis on South Africa may restrict the generalisability of the findings to other countries or regions characterised by distinct healthcare systems, cultural contexts, and responses to the pandemic. Comparative studies across diverse geographical locations can improve the comprehension of leadership dynamics in various contexts.

Addressing these limitations and adhering to these recommendations will enable future studies to enhance the understanding of leadership dynamics in rehabilitation therapy, especially during crises such as the coronavirus pandemic. This knowledge is crucial for enhancing leadership effectiveness and improving patient care amid ongoing challenges.

6.5 Recommendations for future studies

Based on the findings of this study regarding the impact of the coronavirus pandemic on the leadership styles of rehabilitation therapists in South Africa, several recommendations for future research are suggested:

6.5.1 Expand sample size and diversity

Subsequent research should focus on obtaining a larger and more diverse cohort of healthcare practitioners to improve the generalisability of the results across various contexts and countries.

6.5.2 Employ mixed methods

A mixed-method approach that integrates quantitative and qualitative data may yield a more thorough understanding of leadership styles and their effectiveness during the pandemic.

6.5.3 Investigate diverse leadership styles

Future research should examine a broader spectrum of leadership styles, such as servant and authentic leadership, to assess their significance and efficacy in crisis contexts.

6.5.4 Patient outcomes and leadership styles

Future research should investigate the direct influence of different leadership styles on patient outcomes within rehabilitation contexts. Examining the impact of leadership on patient care and recovery offers essential insights for enhancing healthcare practices.

6.5.5 Training and development programs

Analysing the effectiveness of training and development initiatives designed to improve leadership skills in rehabilitation therapists, would provide significant insights. Research may evaluate the effectiveness of various training methods in equipping leaders for crisis situations and enhancing adaptability.

6.5.6 Examine contextual factors

Research should account for the influence of organisational culture, resources, and external pressures on leadership styles, in order to enhance the understanding of their impact on leadership effectiveness.

Implementing these recommendations will enhance future research on leadership dynamics in rehabilitation therapy, especially during crises such as the coronavirus pandemic. This knowledge is crucial for enhancing leadership effectiveness and improving patient care amid ongoing challenges.

6.6 Summary

This study examined the impact of the COVID-19 pandemic on the leadership styles of rehabilitation therapists in South Africa, indicating notable changes in leadership approaches that resulted from the unique challenges presented by the crisis. Before the pandemic, the transformational leadership style was primarily employed, noted for its emphasis on inspiration, motivation, and collaborative teamwork. The pandemic's exigencies required a shift to situational leadership, which proved to be the most effective style during this time.

The results suggested that situational leadership was regarded as particularly effective in addressing the complexities presented by the pandemic. The adaptability and responsiveness of this leadership style enabled rehabilitation therapists to effectively meet the varied needs of their teams and patients in a dynamic environment. The autocratic leadership style was found to be ineffective, as it obstructed engagement and flexibility, both of which are essential in crisis situations.

The study also indicated that the remaining alternative leadership styles, including transformational and democratic leadership, are acknowledged for their effectiveness. These styles highlight the significance of promoting collaboration and innovation, which are crucial for effectively addressing future crises. The literature corroborates these findings, emphasising that situational leadership is viewed as the most effective management style during pandemics, whereas the autocratic style is deemed insufficient.

The coronavirus pandemic has significantly altered the leadership dynamics for rehabilitation therapists in South Africa. The transition to situational leadership indicated an increased necessity for adaptability and responsiveness in crisis situations. Rehabilitation professionals need to adopt flexible leadership styles to enhance team dynamics and improve patient care in anticipation of future pandemics. Future research needs to further investigate the dynamic characteristics of leadership within healthcare, especially in relation to persistent global challenges.

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APPENDICES

APPENDIX A: TURNITIN REPORT

APPENDIX B: QUESTIONNAIRE

QUESTIONNAIRE: IMPACT OF THE CORONAVIRUS PANDEMIC ON THE LEADERSHIP STYLES OF REHABILITATION THERAPISTS IN SOUTH AFRICA

For each question, select the ONE response option that best applies to you by putting a cross (X) in the appropriate box.

SECTION 1: Demographic Information

1 Your age (years)

18-24	25-34	35-44	45-54	55-64	65+

2 Your home language

English	isiZulu	isiXhosa	Afrikaans	Setswana	Sesotho	Sepedi	siSwati	Tshivenda	Xitsonga	isiNdebele	South African Sign Language	Other (please specify) _____

3 The gender you were assigned at birth

Male	Female

4 Your level of education

Diploma	Bachelor's degree	Post graduate diploma	Post graduate degree

5 Employment status

Self-employed only	Employed by an organisation only	Both self employed and employed by an organisation

6 In which sector do you work?

Public sector only	Private sector only	Both public and private sectors

7 Your profession

Speech Therapist	Speech Therapist and Audiologist	Occupational Therapist	Physiotherapist	Other (please specify) _____

8 How many employees do you manage/lead?

0	1-10	11-20	21-30	31+

9 Did you manage employees <u>prior to</u> COVID-19 (March 2020)?

Yes	No

10 Did you manage employees <u>during</u> COVID-19 (March 2020 – April 2022)?

Yes	No

SECTION 2: Types of leadership style

The following information gives a brief idea of what each of the following leadership styles represent

- *Autocratic*: Autocratic leaders like to have absolute control over all decisions. They make choices based on their own ideas and judgements and rarely accept advice from followers. They dictate work processes and goals.
- *Democratic*: Democratic leaders are supportive and encourage involvement in decision making. They take an active role in the group, offer group members advice and are open to proposals from subordinates.
- *Transactional*: These leaders are performance focused. They keep a close eye on their subordinates so that swift action can be taken when mistakes are made thus ensuring that objectives and standards are achieved. They implement rewards and punishments to achieve optimal performance from their subordinates.
- *Transformational*: These leaders inspire and encourage employees to strive beyond required expectations to work towards a shared vision. They invest in personal development and give consideration to personal requirements.
- *Charismatic*: These leaders have a vision about which they are passionate, are prepared to take personal risks to realise that goal and are attentive to the needs of their followers.
- *Bureaucratic*: They influence those under their control to follow the rules and regulations established by the leader/manager. There is a hierarchy of authority and regulations and this top-down approach does not involve employee participation in management decisions.
- *Situational*: These leaders adapt their leadership style to each unique situation or task to meet the needs of the team.

11 Using the explanations given above of each leadership style, indicate which ONE leadership style you used MOST before COVID-19 (before March 2020) and during COVID-19 (March 2020 to April 2022)

	Autocratic	**Democratic**	**Transactional**	**Transformational**	**Charismatic**	**Bureaucratic**	**Situational**
11.1 Before COVID-19							
11.2 During COVID-19							

12 Indicate how effective you think **your above selected leadership styles** were before and during COVID-19.

	Not at all effective	Not that effective	Slightly effective	Moderately effective	Effective	Very effective
12.1 Before COVID-19						
12.2 During COVID-19						

SECTION 3: Perceived leadership styles suitable for future pandemics/crises.

13 Indicate your level of agreement that the following leadership styles would be suitable for future pandemics/crises situations.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
13.1 Autocratic					
13.2 Democratic					
13.3 Transactional					
13.4 Transformational					
13.5 Charismatic					
13.6 Bureaucratic					
13.7 Situational					

14 Indicate how effective you think each of these leadership styles would be in a future pandemic/crisis situation.

	Not at all effective	Not that effective	Slightly effective	Moderately effective	Effective	Very effective
14.1 Autocratic						
14.2 Democratic						
14.3 Transactional						
14.4 Transformational						
14.5 Charismatic						
14.6 Bureaucratic						
14.7 Situational						

THANK YOU FOR YOUR TIME

APPENDIX C: INFORMED CONSENT LETTER

UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)

APPLICATION FOR ETHICS APPROVAL
For research with human participants

INFORMED CONSENT

Note to researchers: Notwithstanding the need for scientific and legal accuracy, every effort should be made to produce a consent document that is as linguistically clear and simple as possible, without omitting important details as outlined below. Certified translated versions will be required once the original version is approved.

There are specific circumstances where witnessed verbal consent might be acceptable, and circumstances where individual informed consent may be waived by HSSREC.

Information Sheet and Consent to Participate in Research

Date: April 2024

Greeting: Dear Colleague

My name is Noluthando Leroto Tshabalala – a master's candidate from the University of KwaZulu-Natal. Contact details: Cell: [redacted] Email: 214544180@stu.ukzn.ac.za.

You are being invited to consider participating in a study that involves research on the impact of the COVID-19 pandemic on the leadership styles of therapists in healthcare in South Africa. The aim and purpose of this research is to to determine the impact of the COVID-19 pandemic on the leadership styles of healthcare professionals in a South African context. The study is expected to enroll 377 therapists in healthcare that are registered with the HPCSA and will be conducted purely online. It will involve the following procedures-simply answering a 10–15-minute online questionnaire. The duration of your participation if you choose to enroll and remain in the study is expected to be 10-15 minutes.

The study does not any risks and/or discomforts. I hope that the study will create the following benefits: data on the most effective leadership styles for healthcare practitioners- for future pandemics like-COVID-19.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number_____).

In the event of any problems or concerns/questions you may contact the researcher at (provide contact details) or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557- Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Participation in this study is voluntary and if you decide not to take part-there will be no negative consequences to you. If you would like to withdraw from the study after the completion of a questionnaire-you are free to do so- and your survey results will be discarded. You do not need to provide a reason for withdrawing. The responses to survey questions will be kept confidential no identifying information (name, age, gender IP address) will be collected. Upon completion of the questionnaire, a summary of your responses will be displayed- which may be downloaded as a PDF document or printed if you wish to do so.

In this study, data will be collected electronically. After the completion of the study, all responses from the consent form, biographical information and survey will be downloaded from the survey platform and stored on a password protected USB memory stick. The USB will be stored in a locked cabinet at the GSB&L at the University of Kwa-Zulu Natal-for a minimum of 5 years. The data collected from this study will be used to

write a master's dissertation and may also be used for writing a scientific article and for presentation at conferences. The data may also be used for future researchThe thesis and any other publications from the study will be made available to any participating clinician who expresses interest.

CONSENT

I ---------- have been informed about the study entitled-Impact of the COVID-19 pandemic on the leadership styles of healthcare professionals in South Africa, by Noluthando Leroto Tshabalala.

I understand the purpose and procedures of the study (add these again if appropriate).

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 of the benefits that I usually am entitled to.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions/concerns or queries related to the study, I understand that I may contact the researcher at 214544180@stu.ukzn.ac.za or [redacted]

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:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557 - Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Use of my answers on the questionnaire for research purposes YES / NO

_____ _____

Signature of Participant **Date**

APPENDIX D: EDITOR'S LETTER

EDITING CERTIFICATE

THE INNOVATION SPACE (PTY) LTD

Registration number: 2022 / 496653 / 07

Phone: [redacted]

Email: kavisha@theinnovationspace.co.za

This serves to confirm that the thesis by *Noluthando L.Tshabalala*, was submitted to The Innovation Space for proofreading and language editing. The aforementioned was completed without making any changes to the content of the thesis.

[redacted]

Dr K Nandhlal

Director: The Innovation Space (PTY) Ltd

APPENDIX E: AMMENDMENT APPROVAL LETTER

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

07 August 2024

Noluthando Leroto Tshabalala (214544180)
Grad School of Bus & Leadership
Westville Campus

Dear NL Tshabalala,

Protocol reference number: HSSREC/00006957/2024
Project title: Impact of the COVID-19 pandemic on the leadership styles of rehabilitation therapists in South Africa
Amended title: Impact of the coronavirus pandemic on the leadership styles of rehabilitation therapists in South Africa
Degree: Masters

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 29 July 2024 has now been approved as follows:

- Change in title

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Best wishes for the successful completion of your research protocol.

Yours faithfully

[redacted]

.....
Professor Dipane Hlalele (Chair)

/nng

APPENDIX F: ETHICAL CLEARANCE CERTIFICATE

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

14 June 2024

Noluthando Leroto Tshabalala (214544180)
Grad School of Bus &Leadership
Westville Campus

Dear NL Tshabalala,

Protocol reference number: HSSREC/00006957/2024
Project title: Impact of the coronavirus pandemic on the leadership styles of rehabilitation therapists
Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 03 May 2024 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

Incidents of adverse events and serious adverse events (AEs and SAEs) should be reported in writing to HSSREC, the study sponsors, and any regulatory authority (where appropriate), within 7 working days of the occurrence for local sites and 14 days for all other South African sites.

This approval is valid until 14 June 2025.
To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Yours sincerely,

[redacted]

Professor Dipane Hlalele (Chair)
/dd