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**Manual therapeutic health care as an essential service: a case study
conducted in Stellenbosch, Western Cape**

**Submitted in fulfilment of the requirements for degree of Master of
Health Sciences:**



**Somatology in the Faculty of Health Sciences at
The Durban University of Technology**

Natasha Africa

November 2022

Supervisor: Dr S Ghuman

Co – supervisor Ms S Nkwanyana

Signature:-----

Signature:-----

PREFACE

This dissertation Is an original intellectual product of the author and has not been submitted to another university. Where use was made of the work of others, it has been fully acknowledged

The research in this dissertation was carried out in Stellenbosch under the Department of Somatology, Faculty of Health Sciences Durban University of Technology, South Africa under the supervision and co – supervision of Dr. S Ghuman and Ms S Nkwanyana

Ms N Africa

Dr S Ghuman
(Supervisor)

Ms S Nkwayana
(Co – supervisor)

DECLARATION OF AUTHORSHIP

I, Ms Natasha Africa, hereby declare the content of this research project is my own unaided original work, except where specific indication is given to the contrary (by reference). To the best of my knowledge and belief, this thesis has not been submitted to any other institution as part of any academic qualification and contains no material previously published or written by any other person except where due reference is made.

Ms Natasha Africa

Student number: 22174674

Date: November 2022



I wish to dedicate my work to my Lord and Saviour Jesus Christ, for giving me strength, wisdom, and courage to work through and complete this study.

To my number one support system, my parents who has been with me through every step of this amazing journey. I am forever grateful for the role that you play in my life.

To my darling boy Zeus, for your endless love and support.

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ABSTRACT

Introduction: The Covid-19 pandemic had a huge impact on various industries worldwide, and one of them the personal care services which includes the beauty industry. This industry was declared a non-essential service and only allowed to open under advanced lockdown level 3. For the first time the question about essential versus non-essential services was raised.

Aim: The aim of this study is to investigate whether therapeutic health care, provided by somatologist may be classified as essential services to assist in the prevention of non-communicable diseases to alleviate the overburdened health systems. The objectives of this study were to determine the demographics of participants in Stellenbosch as an essential service in manual therapeutic care. To investigate whether the classification of services offered by Somatologist are essential. To recommend guidelines to the National Bargaining Council, on therapeutic health care as an essential service.

Methodology: A non-interventional quantitative research approach was employed. The study was conducted in Western Cape – Stellenbosch at two clinics, two spas and two salons. The study included 366 participants who completed online surveys. A pilot study was completed to test the validity and reliability of the study. Participants completed and submitted the surveys on the Survey Monkey App.

Results: Most of the participants that took part in the study were female (79.8%) who were between the ages of 18 – 29 (26.9%). A significant proportion about 67.6% of the population indicated that the reason for visiting their spa, salon, or clinic is for relaxation purposes. Figures showed that (0.52%) of the visits to these institutes were for purchases. The number of responses to how individuals would describe the term wellbeing indicates that a significant number of participants agrees that the term well – being has a relationship with being healthy. 0.81% of the population indicated that to them the term well – being involves health.

Discussion: The findings indicated that most individuals who visit these institutions are employed females between the ages of 18 – 29 mostly for the purpose of relaxation and purposes. There was a significant agreement that visiting a salon spa or clinic improves their health and well-being and most individuals indicated that they make a relation between health and well – being.

Based on the current statuses that not only individuals are in, but also the status of the health care sector and the impact of Covid – 19 on the world, it is evident that full operations of the health and wellness sector including the beauty industry should be categorised as essential. 36.2 % Of participants that was included in the study indicated that the closure of the health and well – ness industry had a small negative effect on their health and well – being and 30% indicated that it had a large negative effect on their health and well – being.

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ABBREVIATIONS AND ACRONYMS

WHO	-	World Health Organisation
CPD	-	Centres for Disease Prevention
NCD	-	Non-communicable disease
BDD	-	Body Dysmorphic disorder
ART	-	Antiretroviral
ECM	-	Extracellular matrix
LED	-	Light Emitting Diode
PDT	-	Photo Dynamic Therapy
SPSS	-	Statistical Package for Social Sciences
GOF	-	Goodness of fit
AHPCSA	-	Allied Health Professions Council of South Africa
UV	-	Ultraviolet
IPL	-	Intense Pulsed Light

DEFINITIONS OF TERMS

Aestheticians: A person who specialises in skincare

Balneotherapy: The practice of bathing in minerals and other additives as a therapeutic modality

Carbuncles: A group of pus – filled bumps forming a connected area of infections under the skin

Dermabrasion: A skin resurfacing treatment that makes use of a rapidly rotating device to remove the outer layers of skin

Effleurage: Stroking movement performed on the skin during massage

Folliculitis: Inflammation of hair follicles

Hypertrophic scar: A thick raised scar identified as an abnormal response to wound healing.

Hyperpigmentation: Darkened patches or spots on the skin

Keloid scar: A raised scar after an injury has healed

Manual therapy: A structured approach to delivering hands on physical therapy

Morbidity: The condition of suffering from a disease or medical condition

Mortality: Being subject to death

Musculoskeletal: A body system made up of bones, cartilage, ligaments, tendons and connective tissue.

Pathophysiology: Disordered physiological processes associated with disease or injury

Pharmaceuticals: Relating to medicinal drugs, or their preparation, use, or sale

Aromatherapy: Making use of aromatic plant extracts and essential oils for healing and cosmetic purposes

Reflexology: A system of massage used to relieve tension and treat illness based on the theory that there are reflex points on the feet, hands, and head linked to every part of the body

Therapeutic: Relating to the healing of disease

CHAPTER 1

1.1 INTRODUCTION

In the year 2019, the world was faced with a global pandemic Covid-19. This had an enormous effect on industries worldwide, whereby it either limited or prohibited operations from proceeding. Only operations that were classified as being essential were allowed to proceed. Those that were classified as non-essential were prohibited (Mullinder 2020:56). Within South Africa, therapeutic health care services provided by Somatologists were declared as non-essential and were only allowed to operate under advanced lockdown Level 3.

According to the International Labour Office (Knabe *et.al.*2019:9), essential services can be defined as a law that establishes the rights of employees' organizations to organize their administration and activities as well as to formulate their programs without interference by public authorities. This concept was based on Article 3 of Convention No. 89. The South African Labour Relations Act, 2015 classifies a service as essential if it can be identified that the interruption of that service may endanger the life, personal safety, or health of the whole or any part of the population. A non – essential service can be defined as services that do not meet the requirements of an essential service.

An article on promoting health and wellness stated that non – communicable diseases such as diabetes, heart disease, cancer, etc affect millions of people all around the world. These are caused mainly by risk factors such as unhealthy diets, physical inactivity as well as the use of tobacco products. These contribute greatly to the morbidity and mortality rates as health systems tend to focus on treating the illness rather than preventing it. And because of this the (WHO) World Health Organization, as well as Centres for Disease Prevention (CDP), identifies lifestyle-related disease as an epidemic as well as a pandemic.

Non-communicable disease (NCD) contributes to 70% of all deaths (WHO 2020:1). Due to the nature of these diseases, full-on attention for long periods is sometimes required from the health care systems. Lack of care for individuals with these diseases may have detrimental effects. As the spread of the Covid -19 virus continues, many countries especially those with weaker health care systems have experienced difficulty in focusing on treating those with NCD whilst trying to contain the rapid spread of the virus. And individuals who are burdened with NCD are at greater risk of becoming critically with the virus.

Africa was the last continent that was hit with this global pandemic and was also identified as being the most vulnerable due to the Continent's weak healthcare system and ever-growing immunocompromised population. The large numbers of malnutrition, anaemia, malaria, HIV/ AIDS, tuberculosis, and poor economic discipline is what allow for the Continent to be more vulnerable. (Lone *et al* 2020:1300).

1.2 SOMATOLOGIST

Internationally Somatologist is referred to as aestheticians (Nkwanyana 2015:10), however in South Africa Somatologist was previously known as “beauty therapist”, but this has evolved over the years and Somatology is the “career name” being used in South Africa today. The word “Somatology” originates from the Greek term “somatos” or “soma” which means “the human body as a distinct from the soul and productive cells”. A Somatologist is someone who focuses on aesthetic improvement as well as improving the health and wellness of an individual, in essence, a Somatologist focuses on treating the body internally as well as externally (Vosloo 2009:4).

According to the WHO (Bezner 2015:1436), health can be defined as the complete state of physical, mental, and social well-being and not merely the absence of disease. This implies that being healthy involves more than just the physical state of the individual. When assessing the role of Somatologist, it involves recognizing and treating body and skin concerns, providing individuals with suitable lifestyle recommendations, product sales, manicures, pedicures, permanent and temporary methods of hair removal (Vosloo 2009:5). In addition, Somatologist has been identified as an appropriate example of non – invasive health professionals as they are in a great position to encourage clients to improve their lifestyle habits by providing essential advice and recommendations on exercise, dietary intake as well as making referrals which could improve and individual's prognosis.

1.3 POBLEM STATEMENT

A pilot study (Olivieri *et.al.* 2019:1543) that was done on aesthetic treatments performed by qualified aesthetic practitioners on the efficacy on health-related quality of life in breast cancer patients concluded that there are many undesirable side effects including skin toxicity, which can affect the way an individual function and aggravate other health-related issues influencing their quality of life. This is because physicians mainly focus on treatment outcomes and fail to recognize skin concerns that may arise. Therefore, incorporating aestheticians/somatologist to assist with managing and preventing skin reactions due to cancer treatment encourages patient compliance, comfort including well-being.

Another study done in Australia to determine the effects of the shutdown of the beauty industry during the Covid-19 pandemic on individuals concluded that many individuals depend on Health and Wellness treatments as a coping mechanism, especially during this time where they are faced with a global pandemic. The impact of the shutdown on individuals with 'dysmorphic concern" could worsen their condition and could result in

them seeking treatments from various doctors. They may also attempt to self-administer certain treatments which can only be performed by a professional.

Body dysmorphic condition can be defined as a condition where an individual creates an excessive defect in their mind about a slight physical defect that they see on their body. Individuals with this condition may struggle to cope and are generally depressed, socially isolated, and are at high risk of committing suicide. For individuals with BDD (body dysmorphic disorder), the closure of the health and wellness industry was challenging as they often seek.

treatments that act as a safety behaviour and may help with the relief of anxiety. Other than enhancing aesthetic appearance many individuals make use of health and wellness services to reduce body dissatisfaction, adhere to social norms as well as relieve stress (Pikoos *et.al.* 2020:2000).

1.4 RESEARCH OBJECTIVES

- To determine the demographics of participants.
- To investigate whether the classification of services offered by Somatologist are essential.
- To recommend guidelines, on therapeutic health care as an essential service

1.5 RATIONALE

Somatologists are wellness professionals that assist and guide individuals with managing their health and wellness. Their main focus is to improve the quality of life of their clients by focusing on spa treatment, healthy diets, personal health care, fitness and anti -ageing programmes and so much more. (Henrico *et.al.* 2019:8).

According to (Henrico *et.al.*2019:8) Somatologist plays such a fundamental role in many aspects of wellness, which is often disregarded. The foundation of Somatology is based on a great theoretical component of anatomy and physiology which is aimed at improving health and wellness of and individual by treating the body internally as well as externally.

Upon completion of this study, the collected data may assist with having the health and wellness industry re – evaluated with the aim of being classified as essential. This would allow for operations to continue during the pandemic and thus could greatly contribute to relief the heavily burdened health care system. As more medical practitioners are incorporating Somatologist into their practices, they would be able assist more individuals and with the help of the Somatologist the patient compliance may improve greatly and the possibility of side effects arising would be reduced. The Somatologist will also be in an ideal position to make suitable lifestyle recommendations to assist with preventing possible conditions from arising.

1.6 LIMITATIONS

- The study will only include the Stellenbosch population which limits responses and cannot be generalize
- Only those who visit spas, salons, and clinics will partake in the study therefore the results may be biased as the opinions of those who do not visit spas, salons and clinics may not be recognized.

1.7 OUTLINE OF DISSERTATION

Chapter 1 – Purpose of the study

Chapter one states the purpose of the study and outlines, its significance. The significance of the study states its contribution to the field.

Chapter 2 – Literature review

Provides a detailed framework to the purpose of the study discussed in Chapter 1. In this chapter, the body of knowledge is discussed to determine what is not known about the study.

Chapter 3 – Methodology

This chapter discusses the methods used to collect data. It is a breakdown of how the data collected will be analyzed and gives an indication of the various methods available and motivates why it was a suitable method for the research topic.

Chapter 4 – Findings

Elaborates on the results from the data collection. Tables and figures may be used to summarize all the numeric information. The results from the hypothesis may also be addressed in this chapter.

Chapter 5 – Discussion

This chapter provides a detailed discussion on what has been found, the meaning of these findings, and how they relate to your topic and profession. In this chapter details on new information that may be found will also be addressed. It outlines the limitations of the study as well as makes suggestions for future research.

Chapter 6 – Conclusion

Provides a summary of the entire thesis. This may include the researcher's opinion. It discusses the methods, findings, and results of the study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter outlines sources such as surveys, articles, and books used to support the study. It provides the reader with information that has been discovered, who the key writers are, and progressions within the field. With this being said, a literature review is not identified as primary research but rather as a summary of what has been researched before. The purpose of the literature review is to bring the reader up to date with the current literature on a topic. Within an academic paper, the literature review develops an argument, and the thesis or dissertation will contain a part of it. (Ramdhani *et.al.* 2014:48).

2.2 THEORETICAL FRAMEWORK

The Covid-19 pandemic has had a huge impact on various industries worldwide. This study focuses on the impact on personal health care services which includes the beauty industry. This industry was declared a non-essential service and only allowed to open under advanced lockdown Level 3. For the first time, the question of essential versus non-essential services was raised. In many other countries, preventative measures were implemented to curb the rapid spread of the virus. Implementations such as staying home, and closure of businesses were introduced. The closure of the beauty industry affected nail salons, hair removal services, non-surgical cosmetic clinics, and major surgeries conducted for cosmetic purposes. (Pikoos *et.al.* 2020:1994).

The implication of the closure affected many individuals either directly or indirectly. A study done in Australia concluded that services offered to the public by a beauty therapist, including a Somatologist have been a coping mechanism for many. The rapid closure of treatments offered by these professionals could have even worse implications at a time when the pandemic stress is increased. This closure particularly affected those with eating disorders and with body dysmorphic disorder. (Pikoos *et.al.* 2020:1994).

Body dysmorphic disorder (BDD) is a condition previously identified as a dysmorphia, a mental condition characterized by “preoccupation with an “imaged” defect in one’s appearance” or there might be a slight physical imperfection, but the person’s concern about it is excessive. This is linked to many time-consuming rituals such as staring in the mirror or constantly comparing oneself to others. Individuals with this condition are often depressed and have suicidal tendencies. (Veale 2004:67). For individuals with this condition seeking treatments has been recognised as a coping mechanism, which relieves stress-related anxiety.

Therapists administer therapeutic touch which involves the transfer of energy to an individual to create balance in the body. (Krieger 1979:661) first described therapeutic touch as an act of healing in 1975. The laying of hands on the body was found to be a useful technique administered by nurses and was taught as part of the master’s curriculum at the nursing University in New York. If touch plays such an important role in mental and physical well-being, the classification of the beauty industry should be re-evaluated.

Within South Africa, the rules and regulations for therapists to commence operations started during advanced lockdown Level 3. This was only permitted once full compliance with the correct protocols were followed. When we look at the services offered by therapists, majority involves manual therapy which entails touching the

client. In addition to the physical changes as a result of the treatments, the psychological impact also plays a major part in the success of the treatment. The treatments offered by the therapist therefore impacts on much more than just the aesthetic improvement achieved.

2.3 COVID-19

Covid – 19, is a single-stranded RNA virus that forms part of a large group of viruses known as the Coronavirus family. Found in humans as well as in animals such as dogs, cats, chickens, cattle, pigs, and birds. The virus operates by affecting mainly the respiratory tract, and gastrointestinal tract and may also result in neurological disease. (Wiersienga *et.al.* 2020:783) The virus can be transmitted from one person to the next by talking, coughing, or sneezing. In South Africa over 188 000 cases of coronavirus have been reported by July 2020 (Nyasulu *et.al.* 2020:1), thus this disease has placed a massive burden on the South African Health care system which focuses a lot on preventing as well as treating diseases.

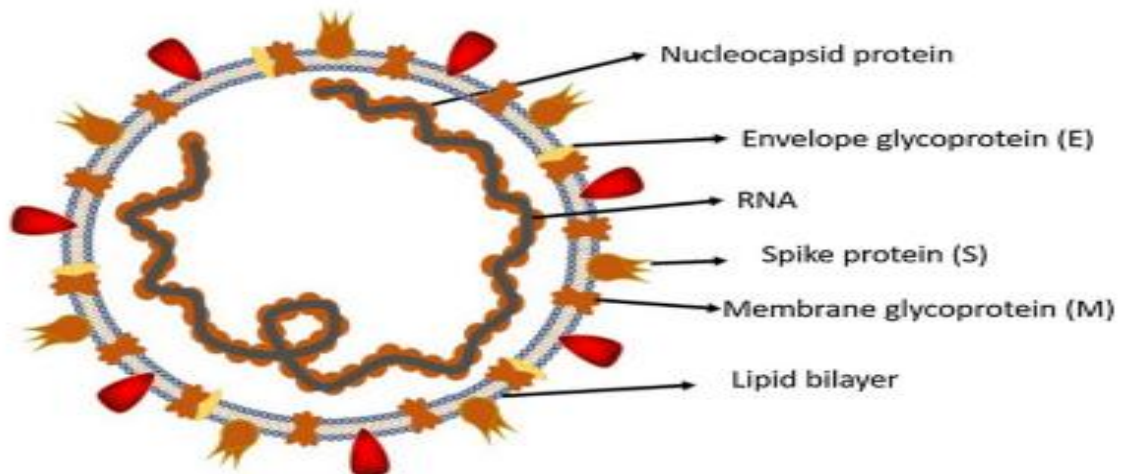


Figure 2.1 Structure of respiratory syndrome causing human corona virus (Shereen *et.al.* 2020)

At present about 7,7 million people are living with HIV in South Africa and of those about 4,9 million are on antiretroviral treatment (ART) and about 1.6 million are virally suppressed, therefore does not put them at high risk, however for the other 2 million not on (ART) will probably be at higher risk of contracting severe Covid -19 infections (Nyasulu *et.al.* 2020:1), which may result in them developing serious symptoms and even death.

Minimal evidence has been provided on the effect of Covid on individuals living with HIV. However, those who are not on ART treatments may be at greater risk of contracting Covid –19 due to their already compromised immune systems. Many countries have already reported challenges linked to treating those living with HIV as the focus is now mainly on controlling the rapid spread of Covid – 19, this may have a negative impact on the morbidity and mortality rate of those living with HIV beyond those affected with Covid -19. (Gatechompol *et.al.* 2021:1)

The life expectancy of people living with HIV has increased in many countries when they have access to sufficient treatment and support. However, the burden of symptoms linked to HIV continues to grow. As these symptoms progress the need for increased Allied Health involvement in caring for these individual's increases. The WHO suggests that physicians need to collaborate with other health professionals in order to provide the public with optimal health care. Physical therapists, such as Somatologists are in a suitable position to help identify and treat HIV – related physical impairments to avoid the possibility of future disabilities (Pullen [SG1]2014:11).

Common conditions that may be related to people living with HIV may be chronic pain, neurological defects, as well as musculoskeletal impairments. Nerve damage is a common symptom related to HIV and is often the reason behind the development of chronic pain. Other symptoms may include slow movement, ataxia, impaired gait, diminished fine motor skills as well as cognitive impairments. About 72% of people infected with HIV suffer from non – infectious musculoskeletal complications such as osteoporosis, osteonecrosis, joint disease, myopathies, and metabolic disorders. (Pullen [SG2] 2014:11)

There is also a prevalence of a decreased body mass in those living with HIV, this could be because of poor nutrition, lack of/ or difficulty with exercising, metabolic disturbances, and lipid abnormalities. Currently, there is limited evidence that highlights the effect of physical therapy on individuals living with HIV, however, the studies that have been done, found that physical therapy has a positive effect on physical impairments, quality of life, and functional limitations in those living with HIV.

With the knowledge of the musculoskeletal system, the physical therapist is equipped to utilize methods that could aid in pain management, individualized exercise prescriptions, and adaptive equipment recommendations. These tools may provide pain relief increase strength and improve their quality of life. With the use of ARVs, the life expectancy of people living with HIV has increased majorly, with this being said there will be an increase in the need for allied health professionals to support their needs.

The downside linked to the increased life - expectancy is that there will also be an increase in symptoms related to HIV and these may include pain, chronic impairments of the musculoskeletal and nervous systems which can be treated by the physical therapist. Physical therapist, such as somatologist has anatomy and physiology as a foundation of their training. This allows them to understand the pathophysiology of disease as well as which are suitable treatment options for impairments associated

with chronic diseases such as diabetes, cancer, multiple sclerosis, pain and cardiovascular issues, these conditions could reflect in those living with HIV and can be identified as diabetic neuropathy, cancer – related muscle wasting as well general fatigue. (Pullen 2014:14). As result of this HIV has now been listed as a chronic condition, as the symptoms linked to chronic conditions simulates those in people living with HIV. Limited evidence is available that support the benefits of physical therapist on people living with HIV, and therefore the strain on the health care system continues to remain in a critical state.

Treatments from the somatologist may not directly influence viral load of an individual infected with HIV but can improve their quality of life by addressing the symptoms related to it thus improving function. The role of somatologist may benefit people living with HIV before and after seroconversion from HIV to AIDS. The economic status of a country also plays a major role in the quality of life these individuals, as individuals with low – socioeconomic status may be at a disadvantage when it comes to accessing sufficient health care and prevention services, leading to increase morbidity and mortality rates.

(Pullen 2014:15) states that ‘Given the increased chronicity of HIV, People living with HIV now have varied needs that must be addressed by a diverse medical team. Allied health professions such as physical therapy is essential to the treatment and well – being of people living with HIV and must collaborate with physicians to deliver the best quality of care’

2.4 LOCKDOWN IN SA

In March 2020 the WHO (World Health Organisation) declared Covid -19 as a global pandemic and by July 2020 all continents reported cases of Covid-19. The rapid spread affected 215 countries including South Africa. According to (Sifunda *et.al.* 2021:14) individuals with co -morbidity such as diabetes, hypertension and obesity are mostly affected with coronavirus. South Africa is currently one of the countries with

the highest number of confirmed Covid cases on the African continent. Due to the lack of education on health, as well as specific therapeutics the aim to control the spread of the virus has relied heavily only on already fragile health care systems and socio – behavioral measures. These measures included isolations, quarantine and lockdown.

Quarantine can be defined as restricting movement of individuals who may have been exposed to or in direct contact with a contagious disease. Isolation can be defined as a method used to separate people who are infected with a disease from those who are uninfected in order to control the spread. Lockdown refers to a full -on mandatory quarantine or non- mandatory “stay at home order”. This included halting business operations and requesting the public to stay home in order with the aim of restricting transmission.

On 15th March 2020 the South African government declared the Covid -19 pandemic a state of disaster and a Nationwide lockdown was implemented for 21 days, which then extended to the end of April. Only those services that were classified as essential were allowed to operate and these included food production, distribution, and sales, and pharmaceuticals as well as medical services. (Sifunda *et.al.* 2021:14). Those that were non – essential was restricted or prohibited.

2.4.1 Essential services

The International Labour Office defines essential services as a law that establishes the rights of employees’ organizations to organize their administration and activities as well as to formulate their programs without interference by public authorities. This concept is based on Article 3 of Convention No. 87. (Knabe *et.al.*2019:9). Re – classification from non- essential to essential services would suggest that the practice of therapeutic health care would be permitted during the Covid -19 pandemic. (Knabe *et.al.*2019:9).

2.4.2 Non-essential services

According to (Knabe *et.al.* 2019:10) a non – essential service are services that do not meet the requirements of an essential service, and these include, but is not limited to:

- Radio and television
- Department stores and pleasure parks
- The metal and mining sector
- Computer Services for the collection of duties and taxes.
- The government printing service and the state alcohol, salt, and tobacco monopolies.

Advanced lockdown level 3 in South Africa entails that

- “A person may leave his or her place of residence to perform any service”.
- “Buy goods or obtain services, except for the goods or services which are excluded in this chapter.
- “Move children, as allowed”.
- Exercise between the hours of 06h00 to 18:00; Provided that the exercise is not done in organised groups and adheres to health protocols and social distancing measures.
- Attend a place of worship in the same or another metropolitan area or district within the same province; and
- “Attend a school or learning institution, once they are opened”.

2.5 SOMATOLOGY

2.5.1 History of Beauty

The focus and need to attain beauty date back many years. In ancient times men and women would make use of various materials to improve their health and well-being. Civilians first discovered the process of beauty by experimenting with herbal creams, and powders to treat injuries and improve healing. They then realised that these improved the feeling of their skin and aided in protection from the weather. This may be where health, beauty, and well-being started interrelating. (Rammanhor 2014:21)

2.5.2 Beauty today

The beauty industry has developed so much over the past few years that is now a multi-million-pound industry, reporting about 4,5 million regular users for the year 2000 in the United Kingdom alone. At present spas, salons and clinics are equipped with highly qualified therapists who are capable of providing a variety of treatments ranging from massage, reflexology, aromatherapy, aesthetic enhancements, physical education, nutritional guidelines, facial therapy, and minor surgical procedures.



Figure 2.2 You're a what? Medical Aesthetician (Green 2004)

2.5.3 Somatology profession

According to (Swanepoel 2017:10), Somatologist are identified as individuals who can perform holistic treatments to improve the mind, body, and spirit. The term “somatology” describes the study of the body and therefore a Somatologists is someone who assists individuals with methods to improve general wellness and appearance by providing them with guidelines to maintain healthy lifestyle habits, product use, and clinic treatments. The scope of practice can be categorised within the healthcare industry.

The practice of Somatology also involves treatments such as assessing and treating body and skin concerns, providing individuals with suitable lifestyle recommendations, product sales, manicures pedicures, permanent and temporary methods of hair removal (Vosloo 2009:5), specialized massage, reflexology, aromatherapy, manual lymph drainage, and Swedish massage. (Anon 2012:1). The somatologist works by treating the body holistically. According to (Vosloo 2009:5) Holistic treatment means addressing the individuals' emotions, thought patterns, lifestyle, diet, and physical predisposition as well as understanding their state of health or disease.

2.6 SOMATOLOGISTS AS A PHYSICAL THERAPIST

2.6.1 Touch

A form of non-verbal communication that forms part of the five classic senses alongside vision, hearing, smell, and taste. Humans use touch as a method of interaction with others and the world around them. It allows us to detect and differentiate between various stimuli such as pain, pressure, vibration, temperature, and position. Touch can further be categorised into two subsystems namely, the cutaneous system, which refers to different skin receptors as well as the kinaesthetic system, responsible for awareness of the movement of limbs in time and space. (Haans 2005:150)

THERAPEUTIC TOUCH



Figure 2.3 Janet Quinn using therapeutic touch after she stopped worrying about how she felt and stopped doubting her ability (Krieger 1979)

According to (Krieger 1979:661) Touch/manual therapies administered by Somatologist involves the transfer of energy to the patient/client to create balance within the body. In addition to the physical changes because of the treatments, the psychological impact plays a major role in the success of the treatment. Therefore, treatments offered by Somatologist impacts so much more than just aesthetic improvement but also aim to promote mental and physical wellbeing. Therapeutic touch has been found to be an ideal tool that can be utilised to promote authenticity and openness in a therapeutic relationship. (Hertzman 2016:11). Certain theories even suggest that touch may be used to improve self -esteem and general psychological well -being.

Massage as a treatment is known as one of the oldest forms of communicating with touch as its primary source. This technique has evolved from touching or stroking someone to relief pain to knowledgeable art of therapeutic methods used to treat or heal muscular injuries or stress relief. There is a physiological link between the skin and the brain. Both these organs derive from the ectoderm which is one of the three germ layers. Therefore, touching the clients skin also affects the brain or nervous system. Massage is a treatment carried out in many settings such as, hospitals, trauma centres, sports clubs, Olympic teams, homes and beauty salons. It works by manipulating tissue in order to improve a condition and is incorporated as post-operative care, sports injuries or maintaining health. (Segall and Davids 2001:288).

Mental anxiety, a condition recognised by physical and or psychological symptoms, capable of producing tension within muscles which may be reduced by therapeutic massage. Therapeutic massage works by sending signals to the brain allowing for muscle relaxation allowing one to be able to deal with various situations. The main aim of a therapeutic massage is to induce stress relief and aid in relaxation, with psychological effects including mental relaxation and reduces depressive states, anger as well as fear. Therapeutic massage is found to be one of the most common modalities practiced around the world today. Physical touch is considered a basic human need and massage itself has the ability to induce relaxation of the body and mind. (Lateef 2020:93)

Therapeutic massage is a form of non -verbal communication, but still entails respect, trust and empathy without making use of actual words only physical contact. Massage can be used daily tool to reduce pain and stress relief aiding in overall well -being. Several studies concluded that massage itself has a positive effect on anxiety, pain, and muscle tension. Various pressures are incorporated in massage techniques which has shown to reduce pain associated with conditions such as fibromyalgia, rheumatoid arthritis and aids in improving attention levels and immune system functioning. (Lateef 2020:93)

A study done on the effects of massage therapy on sportsmen indicated that woman usually visit somatology clinics for reasons such as pampering improving and maintaining health and well -being. Sports massage was treatment usually offered by sports massage therapists, however somatologist is now also equipped to offer this type of treatment, hence the reason why more and more sportsmen are visiting somatology clinics prior to their sports event specifically aerobic events, these include boxing, squash, basketball, soccer, rugby and running. Massage prior to an aerobic event enhances the performance of the athlete. (Jooste *et.al.* 2013:2).

According to (Jooste *et.al.* 2013:2) “somatology is a multi -disciplinary profession in which somatologist or somatology therapist (persons qualified to perform massage in accordance with the *Allied Health Professions Act*, 63 of 1982, South Africa) treat a variety of skin and body conditions in a holistic manner”. Jooste writes that massage has a soothing and sedative effect on the individual therefore the somatologist needs to be well equipped with the components on how to incorporate various techniques to enhance well -being. Stress during aerobic sport activities can contribute to headaches, muscle tension and soreness, having a massage done can help combat these concerns.

Massage can benefit an individual both psychologically and physiologically, the physiological emphasis has long -term effects whereby it creates and corrects soft tissue integrity and creates traction between the skin and tissues below it. Massage therefore has the ability to accelerate recovery, reduce the sore feeling and provide overall pain relief in the body.

2.7 HEALTH AND WELLNESS

2.7.1 Health

According to (Bezner 2015:1434) The WHO defines health as “a state of complete physical, mental and social state and not merely the absence of disease”. However, this definition date back to the 1940s and other studies have concluded that the word “complete” has such a great influence on the definition as it indicates that one could only be classified as healthy when there is complete and proper functioning physically, mentally and socially, meaning that most of us would be classified as unhealthy in most instances. (Huber *et.al.* 2011:2)

2.7.2 Wellness

Wellness can be defined as “the sense that one is living in a manner that permits the experience of consistent, balanced growth in the physical, spiritual, intellectual, social, and psychological dimensions of human existence”

Some studies do not distinguish between health and wellness, others may differentiate between the two implying that health is a broader concept, yet others believe that wellness is more comprehensive. In essence when analysing both definitions we can conclude that these terms are multidimensional, and one influences the other. Meaning that an individual can be ill, but healthy. For example, some could exercise and follow a healthy diet but still lack spiritual endeavours or neglect relationships. (Bezner 2015:1434)

2.7.3 Illness

According to (Segall and Davids 2001:3) Illness can be defined as a separation from God. It gives us an indication that there is some imbalance within our lives. It provides us with a signal that we need to return to homeostasis. Illness can affect us mentally, physically, emotionally or spiritually. It helps us identify and self – reflect on our lives and make necessary changes in order to achieve optimal health.

Disease on the other hand can be identified as a combination of unhealthy lifestyles and stress, resulting in the invasion of pathogens and bacteria. Our immune systems are then responsible for protecting us against these pathogens and bacteria which may cause disease. To date, scientific literature suggests that our thought patterns are part of the body. Therefore, how we think has a great influence on our physical state. For example, mental stress and anxiety can cause the body to become tense. Anger which could result and a person reacting aggressively could lead to back spasms as well as rapidly increasing their heart rate which could result in other physical damage.

2.8 NCDs (NON – COMMUNICABLE DISEASE)

It has been identified that people in Africa have greater longevity than those in other countries however this does not mean that their lives are necessarily better or that they are healthier especially those with NCD (Non-communicable disease). In essence this implies that poor health care contributes to lower quality of life and levels of well – being.

According to the South African Demographic and Health Survey done in 2016, 84% of men and women age 65+ have hypertension. Hypertension can be defined as a condition that influences the pressure that blood exerts against arterial walls. With hypertension the systolic blood pressure is greater than 140 mmHg and the diastolic pressure more than 90 mmHg.

With hypertension, a condition that describes blood pressure that is higher than the “normal” maximum level for a particular age group.

- 20 Years 140/90
- 50 Years 160/95
- 75 Years 170/105

The exact cause of this condition is unknown, however there are some predisposing factors involved such as, genetics, obesity, excessive alcohol intake, cigarette smoking and lack of exercise. Somatologists are able to alleviate burdens linked to hypertension or even improve the condition itself by providing the clients with treatments such as massage, reflexology or incorporating the use of essential oils into their massage treatment and offering their client an aromatherapy massage treatment. Massage helps reduce blood pressure, therefore care needs to be taken during this treatment as the blood pressure may drop too much. (Segall and Davids 2001:159)

Other than this about 17% of individuals are between the ages of 15 -24. 30% of women and 21% of men with the same age have diabetes, a condition where the blood glucose levels are high also known as hyperglycemia and approximately 1 – 2% are between the ages of 14 -24. (Samson Institute for Ageing Research, 2020).

Diabetes is found to be a condition that affects almost every organ in the body including the skin. During consultation the somatologist need to be vigilant about symptomatic manifestations linked to a diabetic skin. The clients may be able to benefit greatly from the somatologist expert knowledge on how to understand and take care of their health – related challenges. Since diabetes is a condition that may affect all

the organs in the body, it has been identified that skin disorders may be one of the first signs that a person is diabetic, therefore somatologist may be able to make prognosis and prevent further manifestation of the condition.

Somatologist deal with various skin concerns on a daily basis. Due to the nature of their profession, they are either able to address the problem immediately, provide suitable solutions or make referrals. Certain conditions may either be topical, while others are systemic, resulting from underlying medical conditions (Kollaras 2015:100). Before treatments a thorough consultation is of utmost importance for every client especially the diabetic client, to allow the somatologist to identify activities of the skin as well as its tolerance before deciding on treatment options for the face or body. Kollaras suggest that only qualified somatologist should be allowed to perform treatments as they are equipped with enough knowledge to be able to recognize skin responses such as allergic reactions due to medications as well as, infections and delayed wound healing.

When analyzing a diabetic skin some of the symptoms that may be presented are:

- Insufficient circulation, resulting from vascular issues due to lack of nutrition in the skin.
- Urge to frequently urinate.
- Nerve damage that influences perspiration. Which may be accompanied by itching, can also cause small cracks in the skin making it prone to bacterial or fungal infections.
- Diabetic neuropathy resulting in lack of skin sensation, tingling or pain especially in extremities.
- Diabetic dermopathy – light brown scaly patches, usually present on the front of both legs.
- Folliculitis, boils, carbuncles.
- Hair loss.

According to (Kollaras 2015:102) a massage treatment on a diabetic client may increase insulin activity which aids in reducing blood glucose levels because of its relaxing nature. The somatologist does however need to communicate regularly with the client to ensure that they are not going into a hypoglycemic state. 'As a professional somatologist, you play a vital role in taking care of skin and dealing with clients that may manifest with different diseases both skin and systemically. Making your diabetic clients aware of their skin health through active self – monitoring should also be an important part of your communication with them'. (Kollaras 2015:102)

There is a prevalence towards an increase mortality risk in those individuals with co – morbidities and especially in elderly people with (NCDs). The pandemic has posed some difficulty in managing and providing care for those with NCDs even though there has been a decline in the rate of Covid -19 infections. The need for the health care system to focus on Covid -19 has led to some sort of neglect upon those that need to be protected from contracting coronavirus, and thus impacting their mental and physical activities as well as their overall well - being. According to (Geffen *et.al.* 2020:5) there is a need to provide more responses at primary health care levels, as it is not currently meeting the needs of offering effective services to individuals. (Geffen *et.al.* 2020:5). The sad reality is that health care systems has been disrupted globally therefore resulting in lack of prevention and treating vulnerable individuals living with NCDs.

2.9 STRESS

People have been aware of stress for many years, it dates back to the times when Hippocrates recognized it and were aware of its adverse effects. Claude Bernard was one of the first to discover and explain that cells and tissues have the ability to protect themselves against stress. Approximately fifty years later it was then Walter Bradford Cannon who designated homeostasis '(from the Greek *homoios*, or similar and *stasis*, or position)' (Fink 2016:549). Cannon also recognized and formally explained the fight or flight scenario in which he describes how animals respond to threats whereby the

sympathetic nervous system is stimulated, and the animal will either react by fighting or fleeing. Furthermore, this response was identified as an acute stress response.

In 1962, Hans Hugo Bruno Selye, a medical student also known as the 'father of stress' began his research on stress, whereby he observed patients with a variety of conditions who had many non-specific symptoms that were identified as common responses to stressful stimuli. After he made his observation together with tests, he performed on rats within the lab he was then able to conclude that if a patient is exposed to stress for a long enough period, it could thus result in 'disease adaptation', This is also known as chronic stress, which causes overproduction of chemicals and hormones can lead to the production of gastroduodenal ulcers and hypertension.

The general adaptation syndrome hypothesis was not recognized and was sought to be incorrect it did however put stress on the map and placed emphasis on its effects on the immune system as well as the adrenal glands. (Fink 2016:549) Amongst other things Selye was also able to recognize that homeostasis alone was not able to ensure the bodies stability under stressful conditions, which made him give rise to the term heterostasis '(from the Greek *Heteros*, or other)' (Fink 2016:549). This term was defined as the process by which a new steady state was achieved by treating the cause of the problem such as the factors that stimulate physiological adaptive mechanisms.

Stress can have different definitions for many different people. The most generic definition of stress which was proposed by Selye was 'Stress is the non-specific response of the body to any demand' (Fink 2016:549). He continued to emphasize the fact that the words stress as a non-specific demand was the best-suited description. Selye continued to state that stress does not necessarily link to emotional arousal or nervous tension as it may occur in humans and animals in or as a response to anaesthesia, as well as in plants or bacteria that do not have a nervous system.

Stress[SG3] can be measured by acute stress, which can be categorized as a short traumatic experience, as well as chronic stress which involves the processing of diseases as well as social challenges such as homelessness or relationship issues, as well as the individual perception of stress. Furthermore, the causes of stress can have an impact on immunity which in turn may have implications for comorbidities such as wounds. Physiologically, characteristics of stress within an acute wound can be identified by the protective habits of leucocytes at the site of injury as preparation methods to assist with the invasion of microbial contamination (Wynn *et.al.* 2019:20).

With chronic stress, characteristics can be measured by the increase in inflammatory cytokines that extend the wound healing time. There is still some uncertainty about whether this is linked to physiological change or behavioural changes such as poor diet and exercise which have also shown to contribute to an increase in inflammatory markers and healing time (Wynn *et.al.* 2019:20).

2.10 WOUND HEALING

According to Jourdan *et.al.*, the wound healing process can be described as an 'innate immune response to tissue injury that finishes with wound closure and restores the skin barrier function to prevent infection. (Jourdan *et.al.* 2019:800). In normal circumstances the wound–healing process involves a balance between healthy proteins and enzymes which include neutrophils, macrophages, and protease which all work together to promote the healing of a wound. This cycle occurs from the time when the injury is caused to the time when the wound is healed.

It involves four steps namely:

Homeostasis – This is the first step in the wound healing process, which involves vasoconstriction whereby the blood vessels constrict to prevent excess blood loss (Chamanga 2018:53).

Inflammation – this process involves the presence of neutrophils as well as white blood cells in the wound bed and surrounding tissues, which aids in protecting the wound from microorganisms or foreign substances which may enter the site of injury. As the wound healing stages progress there is a drop in the number of neutrophils which are replaced by macrophages, that function by engulfing foreign particles and enhances the body's immune function to help combat infections. (Chamanga 2018:54).

Proliferation – this phase involves the formation of new tissue. Granulation tissues are formed by compromising the extracellular matrix (ECM), which then provides support to the surrounding cells in the body's tissues. ECM is the main component of the dermal skin and presents itself as being pink in colour, which gradually fills the wound from the base upwards to the superficial skin level leading to epithelialization. (Chamanga 2018:54).

Remodelling – The remodelling phase is also known as the final phase in the wound healing stages. In this stage, the collagen becomes smoother and epithelial cells migrate across the site of injury. Old cells are sloughed off and replaced with new cells which results in the closure of the wound. (Chamanga 2018:54).

Table 2.1. The four processes of wound healing (Wynn and Holloway 2019)

Phase	Timeframe	Cells involved	Function	Cellular and biophysical events
Haemostasis	Instant	Platelets	Clotting to prevent blood loss	Vascular constriction, Platelet aggregation, degranulation, Thrombus formation
Inflammation	1–4 Days	Monocytes, Lymphocytes, Neutrophils, Macrophages	Phagocytosis	Neutrophil infiltration, Monocyte infiltration, Lymphocyte infiltration
Proliferation	4–12 Days	Lymphocytes, Macrophages, Angiocytes, Neutrophils, Fibroblasts, Keratinocytes	Wound bed filling, Wound closure	Re-epithelialisation, Angiogenesis, Collagen synthesis
Maturation	21+ Days	Fibrocytes	Develop tensile strength	Collagen remodelling, Vascular maturation, Regression



Disruptions that may occur anywhere in this process may lead to the development of chronic wounds. Other factors such as age, comorbidities, lifestyle, and medicines may also affect the chemical balance within the wound bed. Chronic wounds can be defined as a wound that fails to heal within the estimated amount of time. Chronic wounds are also identified as a wound that is hard to heal and are more prevalent amongst elderly people but may also target younger individuals, however this is generally dependent on the individuals' overall state of health and well-being (Chamanga 2018:48).

As previously mentioned, there are various factors involved in the wound healing process, and disruption within this process may lead to adverse effects such as a normal wound becoming a chronic wound. The formation of chronic wounds may be associated with the factors such as the increased risk of infections, increased levels of wound exudate due to pain and inflammation which may result in reduced quality of life, Increased use of long-term treatments as the wounds may be stuck in a phase for an extended period, financial burden to patients and healthcare providers including government, Emotional distress such as increased anxiety and sleep disturbances.

Depending on the location of the wound it may affect the patient's mobility's. Co - morbidities such as diabetes may impair the rate at which the wound heals (Wynn *et.al.* 2019:20). Not only do disruptions in the cycle affect the wound healing process, other factors such as the possibility of scar formation can also be caused. Hypertrophic and keloid scars are known to develop due to persistent inflammation. (Jourdan *et.al.* 2019:801).

2.11 STRESS AND WOUND HEALING

Physical health can be influenced by various components such as biological, psychological, and social factors. This theory led to stricter protocols being followed in clinical decision makings gaining full support from the WHO which states that 'health is a positive concept emphasizing social and personal resources as well as physical capabilities. A connection between stress and physical health has been clearly identified. An impaired immune system can be connected to certain behavioural traits or lifestyle decisions such as smoking and poor diet. The impact of chronic social stress has been particularly identified as being harmful to individual health. (Wynn *et.al.* 2019:20)

Wound healing is seen as a complex process involving four steps. Any disruption of these steps may lead to extended healing time of the wound making it more susceptible to infections. Many tests and studies have been done to determine the effects of stress on wounds and their healing as well as find methods to eliminate the psychological burden and focus on physiological aspects of wound healing. A study that was done comparing rheumatoid arthritis symptoms and severity over some time thus concluded that the effect of emotional stress on individuals had a positive effect on symptoms associated with arthritis (Wynn *et.al.* 2019:26).

According to Hussey *et.al.* 2020 stress management during the wound healing process is crucial. It is recommended that the following steps may help alleviate stress.

- Getting to know the patient and building a relationship with the patient can create a trustworthy environment allowing them to be more open about their symptoms.
- Communicate effectively, this would ensure the patient understands their condition and provides a sense of safety and satisfaction.
- Encourage patients to have a positive mind-set, this may eliminate negative attitudes and encourage patient compliance.
- Encourage lifestyle changes, healthy diets improve immune functioning thus ensuring better-wound healing.
- Encourage meditation or controlled breathing, this could help individuals control stressful situations and reduce negative emotions. (Hussey *et.al.* 2020:59).

2.12 SCAR FORMATION

There are various factors that can influence the way a wound heals this can be age, ethnicity, genetics, smoking, sun exposure, lifestyle, stress as well as the location of the wound. The risk of scar formation can be affected by the location of the wound, mechanical stress including skin stretching could cause stimulation of certain receptors within the body, therefore should a patient present with a wound on the deltoid or sternal regions they may develop into keloid scars as they are identified as wounds with greater edge tension.

The tendency to develop keloid scarring is often found to run in families and is popular among those with darker Fitzpatrick skin types. Individuals who live in the more tropical regions have also been found to be more susceptible to keloid scar formation. Keloid scars can be identified as scars that develop long after injuries and usually extend beyond their borders. They may present with a glistening appearance, may itch, and is prone to hyperpigmentation. Hypertrophic scars develop at a much earlier stage due to wound infection or trauma, and although they may be very similar to keloid scars, they present by growing within the border of the scar which then gradually flattens. (Jourdan *et.al.* 2019:802).

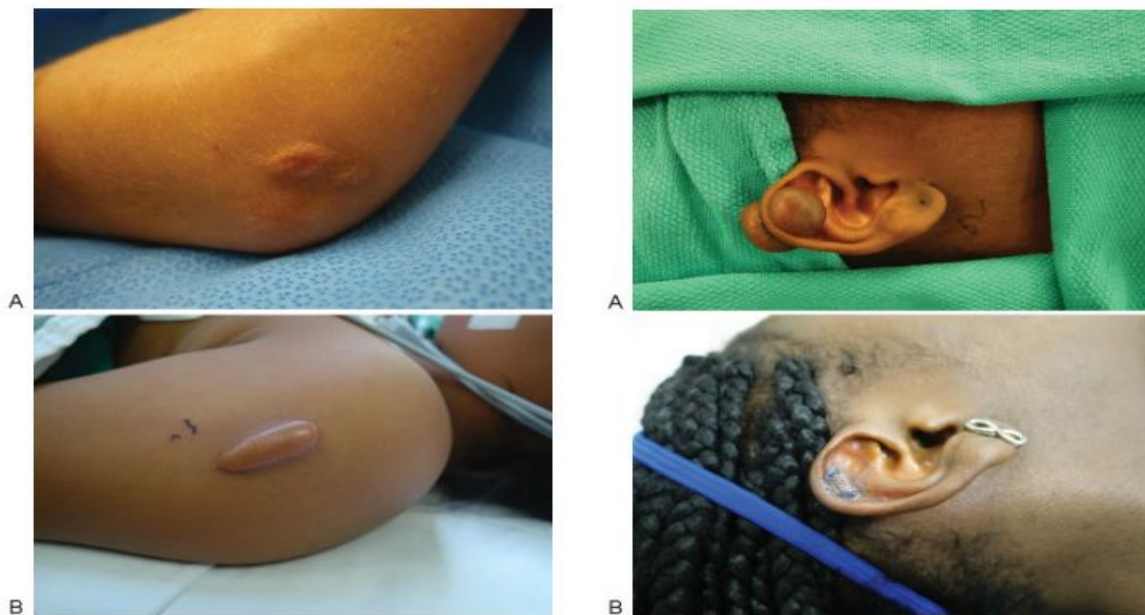


Figure 2.4.1 (A) Hypertrophic scar of left elbow.

(B) Hypertrophic scar of left arm (Commander et.al. 2016)

Figure 2.4.2 (A) Preoperative keloid of the right ear.

(B) Postoperative result after a keloid excision (Commander et.al. 2016)

Scar tissue is not the same as the tissue it replaces, this could be due to that the collagen that forms during the healing process is laid down randomly without definite grain orientation. Compared to normal skin cells the cells of scar tissue are densely stacked, there is less circulation, they lack sensation as well as sudoriferous glands and may be prone to hyperpigmented due to their decreased resistance to uv exposure. Scar tissue can cause many other problems such as burning or pricking jabs of pain to surrounding tissues when the collagen fibres adhere to points deep within the scar. Somatologist can incorporate hydrotreatments, paraffin baths as well as massage, to assist with softening of scar tissue. The use of paraffin on a burn scar can improve movements. Massage works by loosening adhesions between fibres thus producing more parallel fibre ligaments as well as pain relief (Grounds 2007:233)

Somatologist is trained professionals who can advise and recommend skin care products and treatments, which could in turn manage or prevent the formation of scars. When assessing the ideal environment for wounds to heal, it should be sterile and moist. The moisture assists with hydration in the epidermal layers of the skin. Post-injury wounds may lose four times more water than that of normal skin and may take over a year to regain the water back into the skin once the wound has healed. Caring for the skin by making use of basic skincare provided by a somatologist can play a major role in keeping the wound hydrated to ensure optimal healing. (Jourdan et.al. 2019:802).

The use of skincare plays a key role during the remodelling phase of the wound healing process. Recent studies have shown that silicone sheets and gels are found to reduce the formation of excessive scars forming. Not only do skincare products affect the way in which a wound heals, but massage has also been found to significantly improve pain, pruritus, and scar characteristics in hypertrophic scars after a burn injury. Another study found that balneotherapy with thermal spring water from La Rochet Posay in France has had a positive effect on reducing inflammation, itching, assisted with crust formation and prevented infection when used regularly (Jourdan *et.al.* 2019:803).

Other methods for treating post-operative wounds include Dermabrasion. This treatment involves resurfacing which includes the use of an abrasive device that works by removing thickened skin and controlling the epithelialization process. This treatment option is usually done about 2 – 3 months after the surgery. Dermabrasion has been found to be a treatment that has less chance of causing skin pigmentation compared to lasers, however, there may be a chance for bleeding to occur which will require extra healing time.

Light treatments used in skincare clinics have also been found to effectively treat wounds and reduce the appearance of scarring. These light treatments include but are not limited to infra-red and pulsed dye lasers that have shown to reduce pruritus and scar thickness.

A scar that is in the 2nd to 3rd week of the healing period may also benefit from massage. Massage is one of the most effective cost-efficient ways to treat scars. Massaging the area can allow for the scar to become more soft and supple. However, this treatment can only be performed once the scar has completely closed. The therapist may massage the area by applying gentle circular movements and can

include the use of a medium that has ingredients that promote wound healing (Commander *et.al.* 2016:124)

2.13 SURGERY AND STRESS

Mental preparation for a surgical procedure can be a stressful experience and could play a major role in the entire experience and the outcomes. Other than having to be mentally prepared for hospitalization, a study concluded that elderly patients may also experience some challenges when communicating with healthcare workers, diagnostic and therapeutic procedures, the environment, concerns about home and family, not enough details on diagnosis and prognosis, as well as the fear of becoming dependant on others or even death.

It has been reported that the fear of surgery can elevate stress levels, some people have even shown increased stress and anxiety levels when they need to undergo dental treatments or blood donations. Some procedures patients tend to anticipate as being stressful are surgery, endoscopy, cardiac cauterization, cancer screening, and chemotherapy. Cancer screening patients may experience some additional anxiety, especially during the waiting period before receiving the results (Vogele 2007:693)

Most studies have indicated a spike in anxiety levels before as well as after the surgery. The increase in anxiety levels may differ in some patients pre – operatively compared to post-operative. Even though anxiety has been shown to be one of the most common emotions experienced, some patients also tend to experience nervousness, depression, anger, and boredom. Many studies are now suggesting methods of intervention before and after surgery. (Vogele2007:694). There have been some differences in post-operative recovery amongst surgical patients, it has been found that psychological factors such as anxiety and depression may delay post-operative recovery time (Vogele 2007:694)

Amongst all medical procedures, surgery was found to be one of the most feared and stressful. This could be because of its unpredictiveness and uncontrollable situations that may occur such as losing consciousness, the trauma related to the thought of surgical incisions being made in the body as well as the fear of experiencing severe post-operative pain. Evidence suggests that because patients are unable to predict the outcome of their surgery, they have a tendency to develop a more stressful experience, being unable to predict the outcomes puts them in a position where they are unable to control it. Different types of surgical procedures produce different types of stress, for example, a patient would feel different when getting diagnosed with a condition as opposed to treatment of a condition. (Vogele 2007:694)

2.14 MASSAGE MANAGING STRESS

According to Gasibat and Suwehli 2017, the function of therapeutic massage on the body is to increase muscle mass, improve microcirculation, increase the temperature within muscles as well as reduce cell adhesions, and improve flexibility, which in turn enhances flexibility and reduces risks of injury. Massaging the body stimulates the nervous system, thus activating the parasympathetic nervous system. Once the parasympathetic nervous system is stimulated there is a decrease in heart rate, blood pressure, and overall relaxation is induced.

One study concludes that performing Effleurage movements for about 6 minutes can trigger the autonomic nervous system causing an increase in heart rate, blood pressure as well as skin temperature. It is well known that the main purpose of massage is to induce relaxation but has also been known to reduce pain by activating natural – gating mechanism in the spinal cord (Gasibat and Suwehli 2017:60).

2.15 HEALTH CARE SECTOR

The cost of post – operative complications has also been labelled as a hidden pandemic. These complications place a major burden on healthcare system, families as well as the health and well – being of patients. In today's era awareness has been focused on the increasing demand for healthcare while still delivering high value post-operative care to ensure healthcare sustainability. Even though most institutions understand and implement methods to control the amount of post-operative complications the increase in population size and life expectancy continues to be an uncontrollable factor.

Infections related to health care can be experienced by patients when they acquire surgical treatment. It is considered to be a major problem as it may impact the safety of the patient, may require extended hospital stay, increase disability and the patient may have an increased chance of developing a resistance against the antimicrobial agents used to destroy the bacteria causing infections. This additional burden increases medical costs to the patient and families. The WHO proposed surveillance methods in health care settings in order to control this endemic trend. The surveillance system can be defined as 'the ongoing, systematic collection, analysis and interpretation of health data essential to planning, implementation and evaluation of public health practice' (WHO 2011:4 – 8)

According to (WHO 2011:14), the rate of health care associated infections is much higher in high – risk populations such as those affected by burns, transplants and neonates. Another European study reported that infection rates within the ICU can reach a high of 51%. High income countries have approximately 30% of patients in ICU that is or has been affected with health care associated infections linked to a

substantial amount of morbidity and mortality. In low- or middle-class income countries, surveillance monitoring is a much more challenging task as the health settings in these places have minimal resources available. Here Ministries of Health care are unable to report on accurate results on the actual burden that health care associated infections may have, therefore minimal studies that have been done in these settings.

A study that was done in Australia concluded that by 2047 the increase in the population of individuals aged between 65 and 74 years will increase by approximately 150%, 75 – 85 years by 220% and below 85 years to about 300%. These increases will have major effects on the healthcare sector, due to older people being more at risk for post-operative complications. There will also be a likelihood of increase in illness, the increase in obese patients alone has doubled since 1980. At present the obesity rates have decreased, but it is still seen as a pandemic as well. Obesity is associated with many other health complications and has contributed to 7% of deaths in 2015 and 5 % of disability adjusted life years (Ludbrook 2021:1)

The severity of the impact of the COVID- 19 pandemic itself is still unclear. However, it has been noted that there is now a delay in patient screening for diseases such as cancer and a backlog of surgery which was recently estimated at 28 million cases worldwide. Whether there will be an increase in risk associated with operations before and after is unpredictable but based on evidence it may lead towards a substantial increase. Thus, referring to obesity and cancer as a pandemic itself should suggest that these conditions be prioritised but at present is hidden. (Ludbrook 2021:2)

Some studies have made reference to the costs involved in with complications. A study that was done in Netherlands on abdominal surgery concluded that costs increased to double the actual amount for minor complications and doubled again for bigger complications. These records were only based on the time the patient was in hospital and not the out of hospital cost or any re admission costs that may have been involved which would mean that the increase was more than double. There was a significant relationship between costs and reimbursements. All surgeries that had complications decreased the profits that were made initially. (Ludbrook 2021:5)

A study that was conducted on a variety of surgeries including hip replacement therapy in elderly patients concluded that there was an average of about 4,9% complications related to this surgery and about 25,1% for colectomy, this excluded patients that recovered from post-operative complications. (Ludbrook 2021:5).

When we take into consideration the scope of practice of the somatologist which according to (Swanepoel 2017: 34) includes treatments such as:

Manicure and pedicures

Hair removal techniques (waxing)

Body massage

Facial treatments

Slimming treatments

Skin preparation prior to surgery

Aromatherapy

Therapeutic reflexology

Manual Lymph drainage

Hydrotherapy

Exercise advice and guidance

Nutritional guidance

Electrolysis treatments

Microdermabrasion

IPL

Cosmetic ultrasound

Cosmetic laser

Velasmooth (Radiofrequency)



Endermologie

Light Emitting Diode (LED)

Photo Dynamic Therapy (PDT).

The contribution that they can offer to the healthcare sector is endless. When we assess some of the conditions discussed above. It is easy to identify the gap within the health care sector for example when it comes to surgery, due to the physician's focus being placed mostly on the surgery itself there is an increase chance of delayed wound healing, infections and other post – operative complications (Bezner 2015:1436). This then leads to the patient requiring more treatment as well as an extended stay in hospital. The Healthcare sector is already under such constraints especially during the Covid – 19 pandemics. Permitting operations of Somatologist during these times can bring ease to the current burden on the Healthcare sector. As Somatologist could offer pre and post – operative care, assist and treat other possible complications such as delayed wound healing, reduce and treat scar and other injuries as well as offering patients lifestyle guidance.

2.16 CONCLUSION

When we assess the roles of Somatologist it is evident that their contribution to individual health and wellness is significant, especially during this time when we are faced with a global pandemic. There has been an increase in morbidity and mortality rates because as we have identified above, the focus is merely on treating those affected with COVID – 19 to control the spread of the disease thus there is an obvious gap within the healthcare sector as those with co-morbidities, non – communicable disease, mental conditions, etc has been neglected. After outlining the role of the somatologist, it is clear that their scope of practice would allow them to advise, recommend and treat individuals which could be both preventative and curative. And as the WHO states, being healthy means that individuals are in a steady state mentally, emotionally, physically, spiritually, and socially. Somatologist can assist individuals with achieving optimal health and therefore their scope of practice should

be classified as essential, their services do not only contribute impact the aesthetic appearance of individuals but also overall health and well – being.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION[SG4]

Research method refers to different procedures, schemes and algorithms that were used in the study. The research methodology can be defined as ‘a systemic way to solve a problem’ (Rajasekar 2013:05). It provides the reader with details on the steps that were used to carry out the study. Researchers discuss and explain their work by describing, explaining, and predicting certain phenomena. (Rajasekar 2013:05).

3.2 RESEARCH DESIGN

Research design originated in 1962 at a conference on Design Method at Imperial College in London. Thereafter it was John Christopher who then founded a postgraduate Design in research lab at the University Manchester Institute of Science and Technology.

A research design provides structure to the research and holds it together. It involves the thinking processes that the researcher used to conduct the study. It includes

procedures such as collection of data, how this data was measured and analysed. There are no specific techniques linked to designing research. This concept provides detail on the tools used to answer the research question. In a nutshell it can be defined as the plan that the researcher proposes to conduct the study. (Islamia 2016:69).

The research design serves the function of making the research run smoothly as it will entail all details on planning prior to conducting the various research procedures. Research design means planning ahead, to make sense of all procedures and tools needed to conduct the study, which gives an indication that the research will be conducted professionally, providing sufficient information with minimum efforts, time and money. Various research designs are available for the researcher to decide on depending on the type of study they are planning to conduct. The researcher needs to decide on the best suited design, which will pose minimal errors within the study and includes information on many different aspects. (Islamia 2016:71).

Quantitative research methods make use of analyzing numerical data by utilizing certain techniques to answer questions like who, how much, what, where how many, and how. A non-interventional quantitative research approach will be employed; this can be defined as a method that utilises counting or measuring certain attributes relating to a situation. (Gray *et.al.*2016:323). For this study making use of this method will help the researcher gather as much data as needed, analyzing the variables to achieve results.

A descriptive study design will be used to interpret and describe the data collected regarding the public's perception of the beauty industry as a non-essential or essential service and categorize this information (Gray *et.al.*2016:84). Taking the above information into account, a quantitative approach is best suited. Descriptive research incorporates statistical methods explains a situation as it is, and is targeted at a

community, group or people with common characteristics. Descriptive research allows the researcher to accurately measure the phenomena amongst a group of individuals. (Islamia 2016:76).

3.3 RESEARCH SETTING

The choice of the setting in which the researcher decides to conduct the study plays an important role, as this may influence the study in either a positive or negative manner. The environment and logistics of the setting all contribute to how the research will be carried out. Records on components such as characteristics, events, and gatherings about the setting should be made prior to conducting the study for ethics review and data collection.

It is advised that the researcher familiarises themselves with the setting, this can help them predict and find solutions to any unforeseen challenges that may influence the study. Factors that should be included in the study about the setting are for example the structure, layout, and organisation of the setting as well as providing a reason for this particular choice of setting (Majid 2018:3). For this study the setting will be in two Spa's, two Salons, and two Clinics within the Stellenbosch region. The decision was made based on the objectives that the researcher wishes to achieve. In this instance the objectives are to determine the demographics of participants in Stellenbosch as an essential service in manual therapeutic care, to investigate whether the classification of services offered by Somatologist is essential as well as to recommend guidelines to the National Bargaining Council, on therapeutic health care as an essential service.

Therefore, the study needs to be conducted within the Stellenbosch region on individuals who were directly affected by the closure of the industry. Participants need

to attend either one of the above-mentioned institutions (salon, spa, or clinic) to partake in the study.

3.4 TARGET POPULATION

The population is the entire number of people within a country. (Taherdoost 2016:19)

The target population can be identified as the group of people to whom the researcher wants the results to pertain to. (Vonk 2017:1)

The target population is also referred to as the population of interest that intends to partake in the study. It is not practical or feasible to include an entire population of interest, therefore the researcher works by means of recruiting a sample from the population that shares common interests.

It is important to generate information such as gender, age, socio-economic status, and so forth from the population of interest. When deciding on a target population it is important to remember factors such as the study setting, eligibility criteria as well as sampling strategies. The eligibility criteria determine whether or not an individual is qualified to be a participant in a research study (Majid 2018:3). The eligibility criteria consist of the inclusion criteria, which are the common characteristics shared amongst those of the population of interest. Participants need to meet the expectations of the inclusion criteria to partake in the study

For this study, the target population will focus on individuals within the Stellenbosch from which a sample will be selected focusing on those who visit salons, spas, and clinics as these are practices where therapeutic health care services are predominantly offered.

3.5 RECRUITMENT PROCESS

Recruitment can be defined as a dialogue between an investigator and a potential participant prior to initiation of the consent process' (Manohar *et.al.* 2018:3). Recruitment of participants is one of the most essential elements needed for a research study to be successful. This step involves the researcher identifying potential candidates to partake in the study and providing them with the necessary details with regard to their roles and expectations. Recruitment can be a challenging task in the research process. Ensuring that the participants meet the expectations to answer the research question and achieve objectives is of utmost importance, as this can directly influence the results and expected outcomes of the study (Manohar *et.al.* 2018:2).

Prior to the study being conducted, the researcher has to complete various steps and procedures such as identifying the settings, protocols, informed consent information, and possible risk that may affect the study which is then submitted to the different committees for approval. The expectations of the participants are that the researcher ensures confidentiality which can better the quality of the research. According to (Manhor *et.al.* 2018:7). Low risk, non-invasive studies such as questionnaires or educational interventions have shown to have better recruitment rates.

The recruitment process refers to the steps and procedures the researcher uses to enrol participants. The approach would be to source participants from salons, spas, and clinics within Stellenbosch. The research population will be obtained from open sources such as the Directory of South Africa cosmetic and skincare, the business of South Africa. Permission letters (Appendix 1) will then be emailed to managers or owners of selected clinics, spas, and salons, to request permission for placing an advertisement (Appendix 5) as well as participant recruitment. Upon agreement to continue with the study, the researcher will provide participants with information letters (Appendix 2). Those who agree to partake in the study will then be required to complete a consent form (Appendix 3) as a form of agreement to partake in this study.

3.6 SAMPLING TECHNIQUE

Sampling can be described as a process whereby the researcher selects individuals from the population. The sampling process is necessary as it would not be ideal or practical to include the entire population in the study. This could be time-consuming and expands room for errors within the data collection process. An ideal sample should be large enough for the researcher to get sufficient information to answer the research question (Majid 2018:4).

A sample refers to a group of individuals within the population that the researcher aims to target. For this study, the researcher will make use of a simple random sampling technique which would mean that all those within the target population have a probability of being included in the sample (Taherdoost 2020:21), with the focus being placed on 366 individuals within the Stellenbosch region who visits two of the salons, two of the spas, and two of the clinics. This was an estimate of a sample size across each type of facility for all regular clients

The sample size should serve the purpose of achieving more accurate results, by associating only common interests within the group. This provides the researcher with confidence and peace of mind that the result cannot be compared to or influenced by random variations in the population. The researcher needs to consult a statistician to ensure that the programs required for data collection and analysis utilise appropriate statistical methodologies. (Majid 2018:5)

3.7 INCLUSION AND EXCLUSION CRITERIA

The function of inclusion and exclusion criteria in research is merely to provide the researcher with some control of the study as well as to make the study more feasible. These components are essential because if the criteria are too narrow you may end

up with a sample size that produces insignificant amounts of data. A criterion that is too broad may be affected by external factors, thus making the results inaccurate. The purpose of setting a criterion is to find the perfect balance of specificity. The researcher should read through studies that are similar to their own. This is essential in that it can help the researcher identify possible issues that may arise. When designing your inclusion and exclusion criteria, you should remember to stay focused on the purpose of your study (Hornberger and Rangu 2020:1)

The inclusion and exclusion criteria will set the stage for those who may or may not participate in the study. The list should include approximately three to ten sentences which will provide individuals with a better understanding of the type of participants you are looking for. Upon approval of the study, the inclusion and exclusion criteria should be kept to a high standard, meaning the potential participant needs to meet all the requirements to participate unless stated otherwise by the research committees (Hornberger and Rangu 2020:2)

3.7.1 Inclusion criteria

The inclusion criteria are defined as the common characteristic among the target population that the researcher uses to solve the research problem. (Patino 2018:3713). The research problem of this study involves the reclassification of therapeutic health care from a non-essential to an essential service.

- Males and females
- Over the age of 18
- Individuals who visit salons, spas, and clinics within the Stellenbosch region
- Individuals who visit spas, salons, and clinics regularly

3.7.2 Exclusion criteria

In comparison to the inclusion criteria, the exclusion criteria can be defined as common characteristics among a target population that the researcher uses to solve the research problem, however participants within this category present with aspects that interfere with the results of the study or include risk an unfavourable outcome for the individual. (Patino 2018:3713).

- Individuals who are under the age of 18
- Individuals who do not visit salons, spas, and clinics regularly
- Salons, clinics, and spas beyond the Stellenbosch region.
- Individuals who submit inaccurate information or miss appointments for submitting documents.

3.8 QUANTITATIVE RESEARCH

Quantitative research involves counting or measuring data to answer the research question. Even if the original data collected is numerical or language – based as soon as it involves the processes of counting or measuring, it can be labelled as quantitative research. Quantitative research can give a better understanding of reality aspects such as incidence, connections between two ideas, and cause-effect relationships. According to (Gray *et.al.*2017:3) 'Quantitative research is empirical, meaning that it can be observed and measured or counted in some way' (Gray *et.al.*2017:86).

Quantitative research can take one of two forms, it can either be classified as interventional, where we distinguish cause-and-effect relationships. In an interventional type of research, the participants are divided into 2 categories namely the experimental group, which is the group that the researcher does the testing, and then the control group. The reasoning behind this would be to get an accurate measurement of differences produced by the intervention. The testing that the researcher performs on the experimental group is known as the independent variable. In non-interventional types of studies, the researcher does nothing to the participants,

instead, data is measured through having them complete surveys or submit to draw blood. Non-interventional studies provide descriptions of variables or relationships between variables.

3.9 DATA COLLECTION

Data collection can be defined as a process that the researcher utilises to gather information from participants. For this study, the researcher aims to include 366 individuals and seek permission from two salons, two spas, and two clinics within the Stellenbosch region by emailing permission letters to the owners/managers. Once permission is granted, each participant will be given an information letter on the study.

Data will be collected using an online questionnaire which will be emailed to the participants by sending them the link. According to (Glasow 2005:1) surveys have been identified as a useful method for data collection, as they can obtain information from a large population. A cross-sectional survey design will be employed, a suitable method to study the attitudes and behaviour of a group towards a certain reality. (Mathers *et.al* 2007:5)

Surveys are one of the most traditional methods of research used as a data collection tool. They are ideal for collecting data to describe the reality of a situation. A survey is generally used to measure attitudes or behaviour amongst a group. Surveys can take various forms, for example, a survey done on an entire population is known as a census (Mathers *et.al* 2007:5). Depending on the type of research surveys can take one of the following forms:

Cross-sectional surveys

Longitudinal surveys

Exploratory or Correlational surveys

As mentioned, above a cross-sectional survey design will be used in this study. According to (Mathers *et.al* 2007:5) cross-sectional surveys are surveys that are done on a group of individuals to measure their behaviours or attitudes at a particular time. It provides us with details on the group's response to a certain reality at a particular point in time. (Mathers *et.al* 2007:5) also states that 'if you want to measure some aspect of client satisfaction, then a cross-sectional descriptive survey would be the recommended approach.

Advantages of using surveys

- Internal and external validity – Surveys based on random sampling techniques may produce a sample representing a particular population and may present findings generalised to a wider population.
- Efficiency – Because random sampling techniques can be used with surveys. Results can be based on small sample groups and can be used to conclude the entire population.
- Ethical advantages- Surveys generally do not include personal details about participants hence making them more ethical.
- Flexible – Surveys can be used with other tools such as diaries, focus groups, or in-depth interviews to produce more data. (Mathers *et.al* 2007:6)

Methods for collecting data can include:

- Face-to-face interviews
- Telephone interviews
- Questionnaires

For this study, an online questionnaire was the method of choice for collecting data. Questionnaires are found to be an efficient and effective way to collect data. (Mathers *et.al* 2007:8)

Survey research can be defined as ‘the collection of information from a sample of individuals through their responses to questions’ (Ponto 2015:168). Surveys can be used as a quantitative method of data collection. Surveys have been used for decades as a method for collecting data. It can range from simple to more complex methods. Questionnaires may be administered by a professional or by the participant. Questionnaires may include questions such as participant demographics which adds validity and reliability to the study.

The researcher has the option of paper-based questionnaires or electronically such as via the Survey Monkey App, or in some instances a combination of both, where the participant can choose a preferred method. It is preferred to have both online and self – administered options for surveys because not everyone may have access to the internet and may therefore not be able to partake in the study.

A survey is the method of data collection when a large portion of the information that is required is quantitative. When using a survey, statistical analysis rules need to be applied. A sample is targeted within a population; this sample then acts as a representation of the entire population. (Ponto 2015:168).

3.10 VALIDITY AND RELIABILITY

Validity and reliability are two concepts that interlink in research. They provide different elements of what is being measured. Reliability, however, cannot be measured without validity. This means that a measuring instrument may be deemed reliable but not valid. Thus, it is of utmost importance for researchers to test for both validity and reliability of the measuring instrument. Validity in a study means testing whether the measuring instrument can measure the behaviour or quality it is set to measure accurately as well as identifying how well this instrument serves its function. The validity of the measuring

instrument needs to benefit the study by measuring what it claims to measure. (Surucu and Maslakcil, 2020:2697).

Reliability in research is seen as the stability and consistency of the measuring instrument over some time. If the measuring instrument is deemed reliable, it should be able to consistently measure what it needs to measure, yet still, produce reliable results even when it is applied at a different time. One needs to keep in mind that the results measured at a different time may not be the same as there may be changes in the population as well as the sample size. There should however still be a strong connection between the results, and this will be an indication that the measuring instrument is well reliable. The reliability of the measuring instrument has a direct effect on the result; thus, the researcher needs to ensure that the measuring instrument is healthy and reliable.

Pilot studies are 'tests or studies done on smaller groups to check for the feasibility of the actual study. The word pilot has many different meanings in literature; however, it refers to a study that focuses on an experiment, project, or development undertaken before the actual study. Many researchers may find pilot studies time-consuming, however, performing a pilot study allows the researcher to check the feasibility of the study by identifying potential problems before the actual study. Pilot studies are mainly used to test the feasibility of techniques used in questionnaires and interviews, it helps the researcher identify flaws and barriers such as participants not understanding questions within the questionnaire. This then allows the researcher to revisit the questionnaire and possibly make it more understandable (Fraser *et. al.* 2018:263)

For more accurate results, the researcher plans to formulate a pilot study beforehand, to check the validity and reliability of the questions so that changes can be made before the actual study. The study will include 2 clinics, 2 spas, and 2 salons, targeting 300 individuals in total. A pre-test shall be performed through a pilot survey that will be issued to 5% (19 participants) who will not be part of the sample group to ensure the validity, reliability, and internal consistency of the data collection instrument. The

information letter will be sent via email first to invite the participants and to introduce the questionnaire. Three days after, a reminder email will be sent to those who have not replied yet. Lastly, an appreciation email will be sent to the respondents after the submission of the completed survey.

Once the pilot survey data has been collected, feedback shall be independently examined to detect any possible issues associated with the instrument. Such problems may have included the inability of participants to understand the questions or the vagueness of questions, resulting in respondents being unable to answer the questions. Once these drawbacks were distinguished via the pilot survey, corrective measures may be implemented.

3.11 DATA ANALYSIS

Data is factual information that has no meaning until it is analysed and interpreted. Quantitative data can be described as numerical data. (Richmond 2006:3-8). The data analysis process requires goals, relationships, making decisions, and formulating ideas. Data, in summary, refers to the process of putting facts and figures together to answer the research question. Secondly, factors such as the interpretation and significance of the data are also found to have a significant effect on the research. Data can be obtained from a study in either a numerical form and this is known as quantitative data or in qualitative form.

Data can be grouped into one of 3 categories, namely: Narrative Data Analysis, Descriptive Data Analysis or statistical data analysis. When doing quantitative research, a descriptive data analysis would be best suited. According to (Ashirwadam 2010:2) Descriptive data analysis 'aims at summarising a sample researcher. Thus, it also shows that it is not developed on the probability theory'.

For the data analysis, the SPSS version 27.0 (Statistical Package for the Social Sciences) will be used. The SPSS version 27.0 data analysis will be used to understand and interpret the results of the research. SPSS is a versatile package allowing for many different analyses, data transformations, and forms of output (Akkerrlin, 2014:2). For this study, data will be collected through online questionnaires. These online questionnaires will be e-mailed to participants.

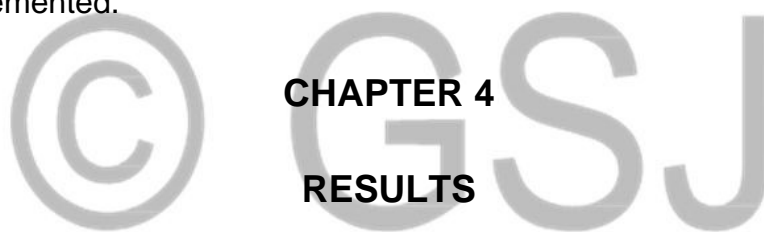
3.12 ETHICAL CONSIDERATIONS

Ethical considerations in research are not based on a set of rules provided to the researcher, Instead, it provides the researcher with a framework assisting with analysing the problem and formulating an action plan (Coleman *et.al.* n.d.:19). Participation in this will be voluntary. No form of payment will be given to participants or accepted by the researcher. Participants are allowed to withdraw from the study at any given time without penalty, and there will be no risks involved in participating in the study. All data collected for the duration of this study will only be accessible to the researcher and supervisors, data will be stored on a USB.

An informed consent letter will be provided to all participants who fulfil the inclusion criteria and permissions will be sought from the salons or clinics where the study will be conducted. Informed consent should be in a language that potential participants will be able to understand. This form describes the following their role, research timeframe, the title of the research, researchers involved, the purpose of the research, description of the research, potential harms and benefits, treatment alternatives, statement of confidentiality, information and data to be collected, the period that the data will be stored as well as who can access it (WHO 2009:7). The questionnaire will be anonymous, and participants will be allowed to contact the researcher as well as the university should they require more information or obtain the results.

3.13 CONCLUSION

Gray *et.al.*2017:3 reported in a study that quantitative research involves data that can be counted or measured in some sort of way. The choice of data collection for this study was through distributing online surveys via the SurveyMonkey platform to individuals who visit two of the selected salons, spas, and clinics within the Stellenbosch region. (Glasow 2005:1) identifies surveys as being an effective method for collecting data. All participants will consent to participate before the completion of the survey. The survey is completely anonymous to protect individual identity. Results collected from the survey will indicate whether the role of the Somatologist impacts their health and well-being and if they were impacted by the closure of the industry itself during the global pandemic. With these results, the researcher can make recommendations to have the industry classified from non-essential to essential which would allow them to operate during the global pandemic even with certain restrictions that were implemented.



CHAPTER 4 RESULTS

4.1 INTRODUCTION

The presentation of writing in the results chapter is seen as an empirical part of the research paper. It provides details and explanations of what was found by the researcher after analysing the data. All the efforts put in by the researcher when the study was conducted will be discussed in this chapter. The findings should be presented in such a way that even those who were never been involved with the study should be able to understand. In this chapter, all achievements obtained during the data collection can be highlighted here. In addition, to the writing tables and figures are also used to communicate findings. The researcher should try and refrain from explaining the findings, as all this should be left for the discussion chapter, no

comparisons should be made and only the results of your study should be communicated in this chapter (Mukherjee, 2016).

Tests used in the analysis:

- Descriptive statistics including means and standard deviations, where applicable. Frequencies are represented in tables or graphs.
- Chi – squared goodness -of – fit test. A univariate test, used on categorical variable to test whether any of the response options are selected significantly more/less often than the others. Under the null hypothesis, it is assumed that all responses are equally selected.
- Binomial test: Test whether a significant proportion of respondents select one of a possible two responses.
- One sample t- test: Test whether a mean score is significantly different from a scalar value.

Note in SPSS a p value given as 0.000 is very small and reported as $p < .001$; a p value of e.g. .017 is reported as $p = .017$

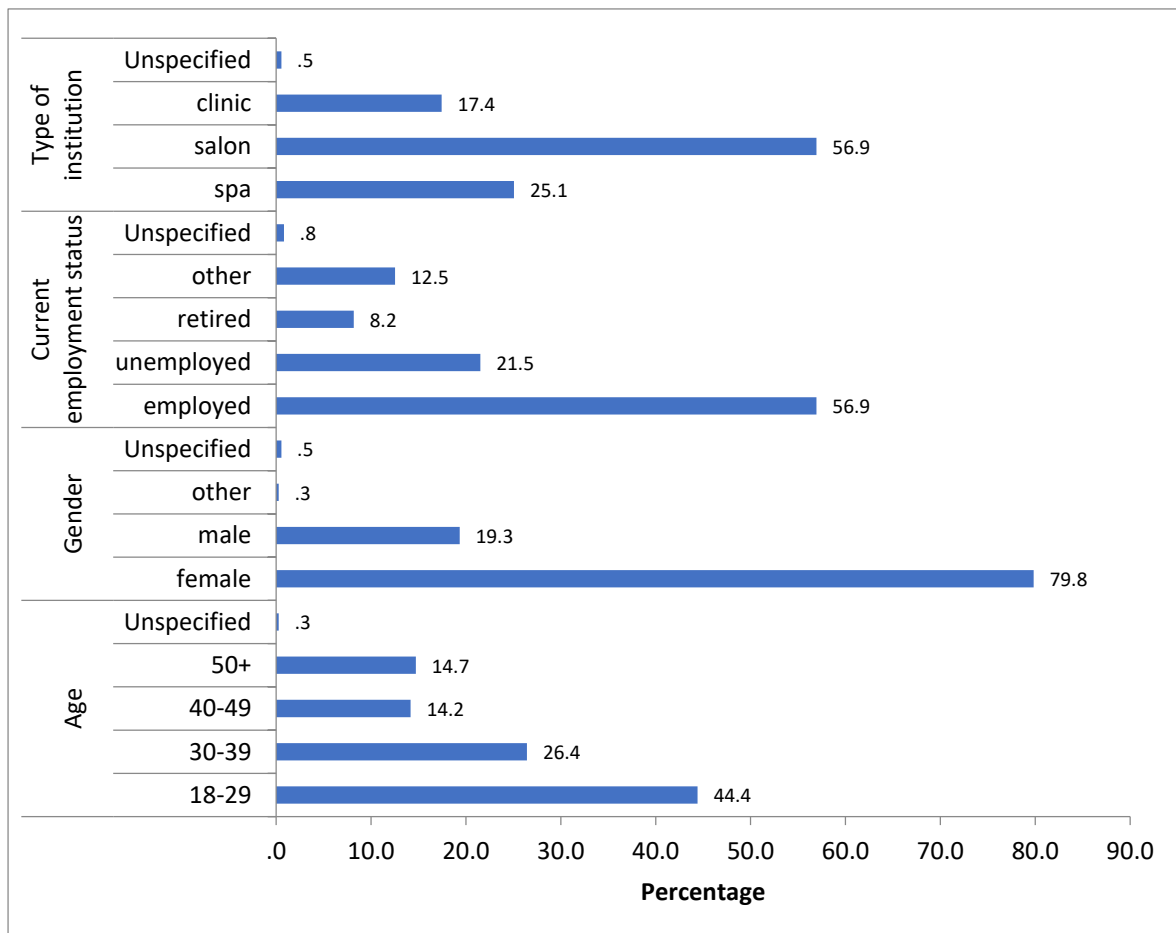
4.2 DEMOGRAPHICS

The initial plan was to include 366 participants from the ages of 18 to 50 +. Participants could be either male or female who attends one of the following institutions within the Stellenbosch region, a salon, a spa, or a clinic. Of this 44% of the participants were between the ages of 18–29, 26.9% of the participants were between 30-39, 14.2% were between the ages of 40 – 49, and 14,7% were between the age of 50 and above. 79.8% (293) were female, 19.3% (71) were males and .3% (1) Identified as other. 5% (2) participants did not complete this section.

The employment status of participants was as follows, 56% (209) participants stated that they were employed, 21.5% (79) were unemployed, 8. % (30) were retired, 12.5% (46) selected other and 0.8% (3) did not complete this question. The results obtained

from the institutions visited were as follows, 56.9% (209) were from the two salons, 25.1% were from the spa and 17.4% (64) indicated that they were visiting a clinic, 0.5% (2) participants did not provide an indication for this section.

Figure 4.1: Demographics



4.3 BINOMIAL TEST

A binomial test was used to determine whether a significant proportion of the respondents selected one of a possible two responses. Binomial tests are one of the oldest tests used in statistical sciences. Binomial tests allow the researcher to make

predictions about individuals in a population with a particular interest. (Krishnamoorthy and Peng, nd)

Table 4.1: Reasons for visiting the spa/ clinic/ salon

Item	Frequency (%)		n	p-value
	Yes	No		
Relaxation	248 (67.6)	117 (31.9)	365	<.001*
Purchases	191 (0.52)	175 (0.48)	366	.433
Concerns/conditions (e.g. Laser treatment, Chemical peel, weight loss program etc.)	136 (0.37)	229(63)	366	<.001*
Beauty treatment	191 (0.52)	174 (0.48)	365	.402
Advice/ recommendations	111 (0.30)	255 (0.70)	366	<.001*
Health reasons	129 (0.35)	236 (65)	356	<.001*
Treatments other than beauty treatments	60 (0.16)	306 (84)	365	<.001*

A significant proportion indicate that their purpose for visiting a spa, clinic or salon is for relaxation; while a significant do not visit these places for concerns light weight loss or chemical peels, advice or recommendations, health reasons or treatments other than beauty treatments.

4.4 TEST – CHI – SQUARE GOODNESS -OF- FIT -TEST

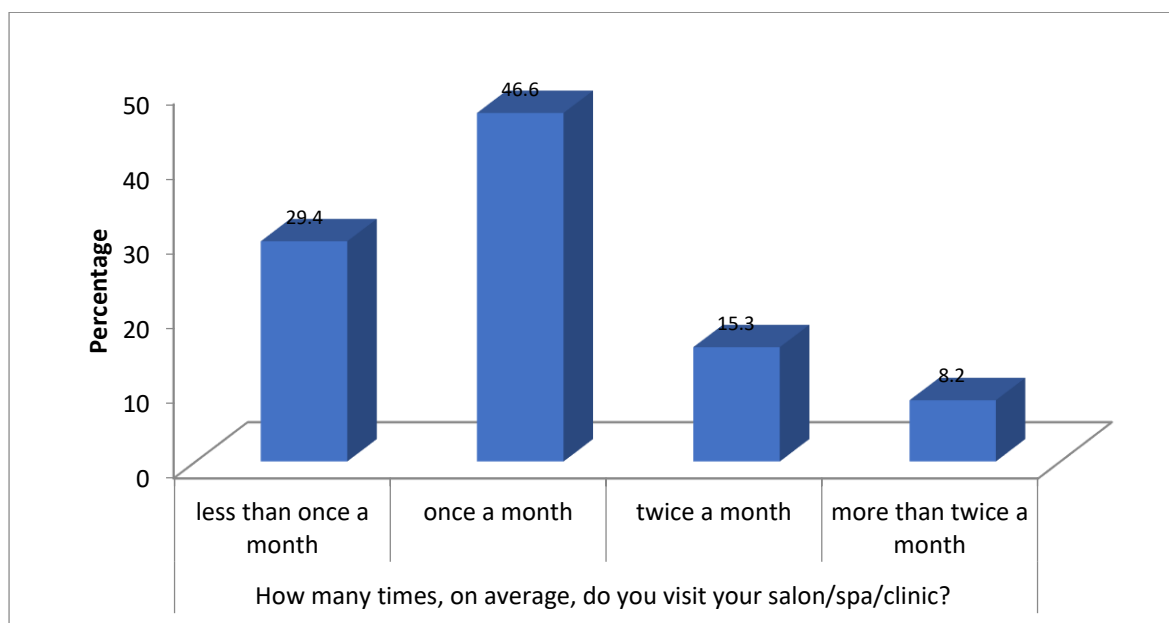
This test is used to see if any response option is selected significantly more than others. The Goodness of fit (GOF) of a particular statistical model describes how well it fits into a set of observations. GOF testing highlights the discrepancies between what was obtained during the study and what was expected. (Olivares, *et.al.*, 2010).

Table 4.2: Frequency of spa/clinic/ salon visitation

Item	Responses as Frequency (%)				X ²	df	p-value
	Less than once a month	Once a month	Twice a month	More than twice a month			
How many times, on average, do you visit your salon /spa /clinic?	108 (29.4)	171 (46.6)	56 (15.3)	30 (8.2)	127.504	3	<.001*

*Indicates significance at the 95% level

Figure 4.2: Frequency of spa/clinic/ salon visitation



4.5 BINOMIAL TEST

A binomial test was used to determine whether a significant proportion of the respondents selected one of a possible two responses.

Table 4.3: Description of “well-being”

Item	Frequency (%)		n	p-value
	Yes	No		
Health	296 (0.81)	69 (0.19)	365	.000*
Happiness	164 (0.45)	201 (0.55)	365	.059*
Prosperity	105 (0.29)	260 (0.71)	365	.000*
Welfare	119 (0.33)	246 (67)	356	.000*

a. Based on Z Approximation

A significant proportion indicate that the best description of the term 'well – being' to them involves health, while a significant proportion does not identify prosperity and welfare as a description of the term well - being.

T-tests can be defined as tests used for two groups or sets of data. According to (Gerald *et.al.*, 2018) "T-test refers to an inferential statistical procedure for determining the probability level of rejecting the null hypothesis that two means are the same". One sample t-test compares two groups with different means on one another and can be used by the researcher to identify whether there is a statistically significant difference this test may only be used if the study sample is from the normal population (Gerald *et.al.*, 2018). The one sample t-test compares the average agreement score with the central score of '3' to determine if there is significant agreement or disagreement



Table 4.4: Effect of visiting spa/clinic/ salon on health and well - being

Item	Responses as Frequency (%)					n	Mean (S D)	t	df	p-value
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree					
Visiting my Salon/ Spa/ Clinic improves my well-being	3 (0.8)	9 (2.5)	49 (13.4)	129 (35.1)	154 (42.0)	344	4.23 (0.851)	26.741	343	<.001*
Visiting my Salon/ Spa/ Clinic improves my state of health	-	6 (1.6)	52 (14.2)	149 (40.6)	148 (40.3)	355	4.24 (0.759)	30.684	354	<.001

There is significant agreement that visiting a spa, clinic or salon improves one's well-being and state of health.

Test One-Sample Test

Table 4.5: Benefits of visiting spa/clinic salon

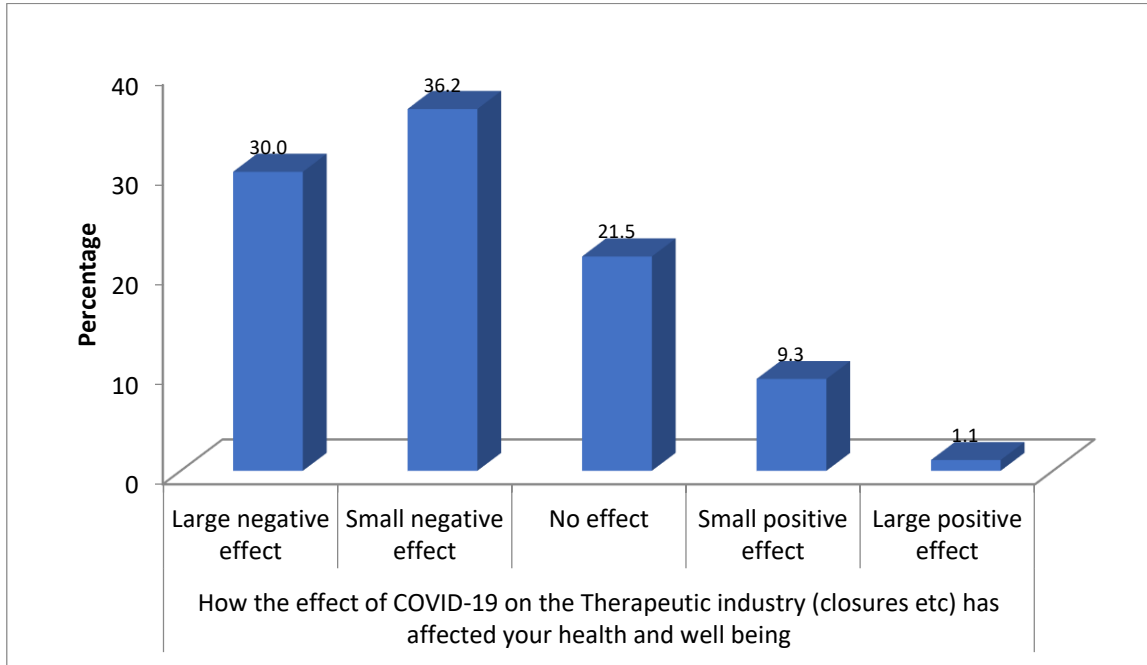
	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
9.1 Emotionally	21.972	333	.000	.997	.91	1.09
9.2 Physically	35.818	330	.000	1.366	1.29	1.44
9.3 Mentally	22.866	332	.000	1.006	.92	1.09
9.4 Socially	10.574	333	.000	.569	.46	.67
9.5 Spiritually	5.904	358	.000	.343	.23	.46

There is significant agreement that visiting your salon, spa, clinic benefits you emotionally, physically, mentally, socially and spiritually.

4.6 TEST – A ONE SAMPLE T – TEST

Will be used to test of the effect is significantly negative or positive.

Figure 4.4: Effect of COVID – 19 on the Therapeutic industry (closures) on health and well - being



Analysis shows that the effect of COVID-19 on the Therapeutic industry has had a significantly negative effect on health and well-being.

4.7 TEST – CHI – SQUARE GOODNESS – OF – FIT – TEST

Table 4.6: Effect of manual therapeutic practice on individuals

Item	Responses as Frequency (%)				X ²	df	p-value
	Improves health	Improves well-being	None of the above	Improves both health and wellness			
Identify which of the following best describes the effect that manual therapeutic practice has on you	23 (88.8)	82 (88.8)	68 (88.8)	182 (88.8)	152.054*	3	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 88.8.

4.8 CONCLUSION

Based on the data presented above, most individuals visit one of the selected settings at least once a month. Their response to the effect that manual therapeutic health care has on them showed that it does not only affect their well-being but also their health. The response to the closure of the health and wellness industry has had some effect on most individuals who took part in the study.

CHAPTER 5

DISCUSSION

5.1 INTRODUCTION

The discussion chapter provides the reader with a complete outline of what the study entails. It gives details on what was the hypothesis of the study, how the study was designed, what methods were used for data collection, and what the outcome of the data collection was. It explains the results to the reader and thus this is the main purpose of the discussion chapter. Discussion is usually found at the end of the paper, however, it is something that the researcher should keep in mind from the moment the study commences. This chapter needs to convince the reader why this study was important, how it relates to previous studies, and what the limitations of the study were. The discussion section should not be written as a forum to impress the reader with your knowledge but rather to convince them of the merits of the study results (Hess, 2004).

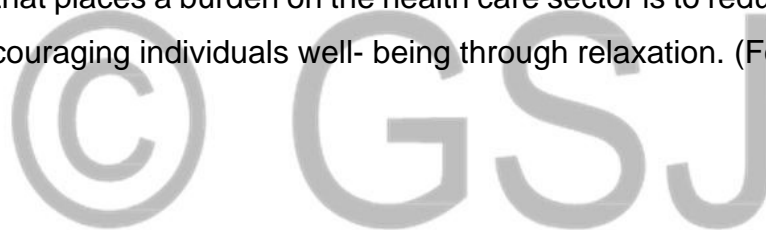
5.2 DEMOGRAPHICS

This study tested the role of manual therapeutic practice on individuals to identify whether it can be categorized as an essential service. During the Covid – 19 pandemic the practice of health and wellness which includes the beauty industry was classified as non–essential and was only allowed to operate under advanced lockdown level 3. Essential services are defined as the law that establishes the rights of employees' organizations to organize their administration and activities as well as to formulate their programs without interference from public authorities (Knabe *et.al.*, 2019). The study included 366 participants from the ages of 18 – 50 +. Participants were both male and female who either visited a spa, salon, or clinic within the Stellenbosch region.

Of the population that was included the majority of individuals in the study, 79.8% were females and there was also a prevalence in the 18 – 29 age categories, this made up about 44% of the population that was included in the study (Figure 4.1). A study conducted in 2014 concluded that the health and wellness industry and the likeness of cosmetics are prevalent amongst females of this particular age category (Manikandan, 2014). 56% of participants included in the study indicated that they were employed and of the 366 individuals that took part in the study the vast majority, 56.9% indicated that the institution that they were visiting was a salon.

5.3 RELAXATION

A significant proportion about 67.6% of the population indicated that the reason for visiting their spa, salon, or clinic is for relaxation purposes (Table 4.1). According to (Henrico *et.al.*, 2019) individual health and wellness include mental, physical, emotional, intellectual, and social environmental, and interpersonal well-being. The healthcare system itself relies heavily on health professionals to assist with easing the current strain. The continuous growth of healthcare expectations has increased the workloads for healthcare professionals. This results in most health care professionals leaving their jobs within the first two years of working (Henrico *et.al.*, 2019). Somatologists are wellness professionals that guide their clients with issues and conditions relating to their health and wellness. One way in which individuals can reduce challenges that places a burden on the health care sector is to reduce the demand. This can be done by encouraging individuals well- being through relaxation. (Forbes, 2017).



Relaxation itself has seen to have many health benefits. It decreases anxiety, insomnia increases pain tolerance and decreases some symptoms linked to chronic pain. Relaxation is a crucial aspect in promoting health as well as helping individuals cope with life – threatening diseases such as breast cancer and GI (gastrointestinal) disorders. Research studies found that health professionals such as Somatologist believe that relaxation is a technique that has two functions: (1) It is used as a coping mechanism for stress or pain which is linked to wear and tear on the body, and (2) using it as a preventative measure for some of the damaging effects of stress (Jones and Heymen, nd). As such it is safe to conclude that most individuals do visit their institutions for the benefit of receiving the feeling of relaxation which is identified as an essential component of being healthy.

5.4 PURCHASES

Figures showed that (0.52%) of the visits to these instates were for purchases (Table 4.1). The health and wellness sector which includes the beauty industry generates about \$500 billion in sales a year and accounts for millions of jobs, directly and indirectly. During previous financial crises the beauty industry was the one industry that was able to fully recover from recession. The COVID – 19 pandemic did affect the beauty industry in a negative way tremendously. Pre – covid instore shopping accounted to about 85% of beauty product purchases and online purchases mounted to 60%. With the COVID – 19 pandemic about 30% of beauty market industry was shut – down, however predictions shows that the industry may once again operate at max capacity (Gerstel *et.al.*2020).

5.5 HEALTH AND WELLNESS

The number of responses to how individuals would describe the term wellbeing indicates that a significant number of participants agrees that the term well – being has a relationship with being healthy. 0.81% of the population indicated that to them the term well – being involves health (Table 4.3). As per the WHO, health can be defined as “a state of complete physical, mental and social state and not merely the absence of disease” (Bezner, JR 2015:1434). Since the health and well – ness industry was not categorised as an essential service operations were only allowed under advanced lock – down level 3, the health and well – being of many individuals was impacted negatively. In essence it can be concluded that if Somatologist work on improving health and wellbeing of individuals and based on the results it is evident that majority of individuals do make a relation between health and wellbeing (Henrico *et.al.*, 2019).

There is a significant agreement that visiting a spa, clinic or salon improves one’s well-being and state of health. On average 42% of the study population strongly agreed that their visit to a specific institution improves their well- being and a further 40.3% of the population strongly agreed that visiting one of these institutions improves their state of health (Table 4.4). A study

that was done in the United States indicated that many women specifically, visited their institutes not only for improving physical appearance but also as coping mechanisms. Clients tend to engage with their therapist thus building a relation whereby they can trust and gain support. This engagement between clients and therapist resulted in beauty salons being identified

as an ideal place for reaching American women and promoting health issues (Holden, 2021). This study also indicated that many women have benefited from visiting their salons during the COVID – 19 pandemic after reporting that they had many uncertainties about the virus.

5.5 EFFECT OF MANUAL THERAPEUTIC PRACTICE ON INDIVIDUALS

182 Participants agreed that manual therapeutic practice does impact both their health and wellness (Table 4.6). In the survey, this question answers a great portion of the hypothesis being tested, the effect that manual therapy has on the individuals who visit salons, spas, or clinics. The result from this study counts in favour of the research question. When we look at therapeutic touch (Kriege,1979) first described this as a method that Somatologist uses to transfer energy to the patient to create balance within the body. Therefore, treatments offered by Somatologist impact so much more than just aesthetic improvement but also aim to promote mental and physical wellbeing. Therapeutic touch is an ideal tool that can be utilised to promote genuineness and openness in a therapeutic relationship. (Hertzman, Y 2016:11). Certain theories even suggest that touch may be used to improve self-esteem and general psychological well-being.

A Somatologist scope of practice involves treatments such as:

Manicure and pedicures

Hair removal techniques (waxing)

Body massage

Facial treatments

Slimming treatments

Skin preparation prior to surgery

Aromatherapy

Therapeutic reflexology

Manual Lymph drainage

Hydrotherapy

Exercise advice and guidance

Nutritional guidance

Electrolysis treatments

Microdermabrasion

IPL

Cosmetic ultrasound

Cosmetic laser

VelasMOOTH (Radiofrequency)

Endermologie

Light Emitting Diode (LED)

Photo Dynamic Therapy (PDT) (Swanepoel, 2017).

As presented by the results, most individuals visit their institution at least once a month (Figure 4.2), and with the pandemic this was not permitted. Studies have placed emphasis of the importance of Somatologist within the health care sector (Henricko, 2019) which could relieve the current health care burden in South Africa. Somatologist can assist in pre and post – operative care as well as providing patients with suitable advice to maintain or improve current health status.

We identified the root cause of the possible increase in morbidity and mortality rates. It has shown that there is a gap within the healthcare sector which can be filled by the contributions



that the Somatologist is able to make within the health care sector, as most physicians focuses only on treating conditions or concerns only, thus resulting in many other complications arising such as delayed wound healing and infections. The severity of the pandemic is still unclear, but it has placed some set back on treating certain conditions such as cancer screening (Ludabrook, 2021).

Manual therapy involves touching the client and massage is one of treatments made available from the therapist and massage has been shown to reduce pain (Gasibat and Suwehli, 2017). Massage is not only a treatment offered in settings such as your spa, salon or clinic. Massages are also performed in hospitals, trauma centres and sports clubs to improve conditions as well as a method of post – operative care (Segall and Davids, 2001)

5.6 CONCLUSION

Based on the current statuses that not only individuals are in, but also the current status of the health care sector and the impact of COVID – 19 on the world, it is evident that full operations of the health and wellness sector including the beauty industry should be categorised as essential. 36.2 % Of participants that was included in the study indicated that the closure of the health and well – ness industry had a small negative effect on their health and well – being and 30% indicated that it had a large negative effect on their health and well – being. (Smart *et.al.* 2021) found that many individuals were unable to receive emergency care or could not access sufficient heath care due to the increase in COVID – 19 infections being prioritised, and more adverse health reactions has been anticipated such as rise in incidence of untreated HIV, TB, malnutrition and mental health problems.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter will present the conclusions, recommendations, and limitations of the study. The researcher will provide a brief overview covering the research problem, the results of the data collection as well as limitations of the study. Based on the data that has been collected the researcher aims to make recommendations to the National Bargaining Council, on therapeutic health care as an essential service and for future studies.

6.2 OVERVIEW

This purpose of this study was to identify whether Manual Therapeutic practice should be classified as an essential service. During the COVID – 19 pandemic the Health and Well – ness industry, including the Beauty industry in South Africa was classified as non – essential and was only allowed to operate under advanced lockdown level 3. This resulted in complete prohibition of treatments offered by the Somatologist as the scope of Somatology is not governed by a statutory board such as the Allied Health Professions Council of South Africa (AHPCSA).

The AHPCSA 'is a statutory health body established in terms of the Allied Health Professions Act, 63 Of 1982 ("the Act") in order to control all allied health professions, which includes Ayurveda, Chinese Medicine and Acupuncture, Chiropractic, Homeopathy, Naturopathy, Osteopathy, Phototherapy, Therapeutic Aromatherapy, Therapeutic Massage Therapy, Therapeutic Reflexology and Unani – Tibb' (Allied Health Professions Act, 2019).

The study was conducted in the Stellenbosch region and the setting included 2 Spa's, 2 Clinics and 2 Salon 366 participants from these settings took part in the study by completing an online survey. The survey had about 11 questions and were completed anonymously. The data represented that most individuals were employed females between the ages of 18 – 29 who visited their institute at least once a month for the purpose of relaxation.

The questions asked in the survey allowed the participants to express their opinion on the effect that Manual Therapeutic practice offered by Somatologist has on their health and wellbeing. The survey also questioned the effect that the closure of the Health and Well – ness industry which include the beauty industry had on their health and well – being during the COVID – 19 pandemic.

The findings showed that it is evident that Manual Therapeutic practice benefits both health and wellness of individuals who visits these institutes. Most of these individuals visit these institutes for the health and wellness benefits of relaxation especially during these stressful times where we are faced with a global pandemic.

The closure of spas / clinics and salons affected majority of the participants in the study. There was a significant indication that the closure of these institutions had a small to large negative effects on the health and well – being and most individuals indicated that there is a relation between the words health and well- being. In conclusion, it has been identified that Manual Therapeutic Practice offered by Somatologist should be classified as an essential service.

6.3 LIMITATIONS

Limitation included factors such as failure to answer all questions within the survey. Only those individuals that visited a spa, salon or clinic was allowed to partake in the study which resulted in the data being homogenous. The study was done within the Stellenbosch region only, this could indicate that the results from data collection may be biased. Responses may have been different, should the study not have been done during the global pandemic.

6.4 RECOMMENDATIONS

These are recommendations made for future studies:

- The study settings should be expanded to more than one area
- Participants should have the option of completing surveys manually as well as electronically
- The researcher should consider including a variety of settings such as Hospitals and Tertiary institutions
- Options on the surveys should be limited to about three
- The researcher should consider doing this study under normal circumstances, and not only during the global pandemic.

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APPENDIX 1: PERMISSION LETTERS



Company address

Stellenbosch

7600

Tel:

May 2022

REQUEST FOR PERMISSION TO CONDUCT RESEARCH STUDY

Dear Sir / Madam,

My name is Natasha Africa, and I am a student at the Durban University of Technology. I am currently in the process of doing my MTech in Somatology in the Department of Wellness Sciences. As part of my studies, I am required to complete a research study. The study would be focusing on proposing recommendations to re-classify Therapeutic health care services from non-essential to essential.

This would permit operations of the Health and Wellness industry which includes Salon's Spa's and Clinics during the lockdown period, as the industry is currently classified as non – essential, meaning that the industry is only allowed to operate under advanced lockdown level 3.

The research title is: Therapeutic Health Care as an Essential Service a case Study conducted in Stellenbosch, Western Cape

For this study, I would like to request permission to recruit participants from your Salon/ Spa/ Clinic, by contacting clients via email on your database as well as placing an advertisement poster/flyer within your Salon/ Spa/ Clinic. The study would include 366 participants in total which will be divided between 2 Spas (45 participants per spa) 2 salons (107 participants per salon) 2Clinics (32 participants per clinic), male or female that are over the age of 18.

The potential participants will be required to complete a consent form, and thereafter they will need to complete a ten minute online survey, for which I will send them a link to complete the survey via the Survey Monkey App.

Participation will be voluntary, and the survey will be completed anonymously. All the information collected will only be kept confidential and will only be accessible to the primary researcher and supervisors.

Should you require any other information please do not hesitate to contact me on 078 201 2259 or email me at africanatasha4@gmail.com. Alternatively, you may contact my supervisor Ms. S. Nkwanyana on 082 521 7534 or email sinegugun@dut.ac.za.

Yours Sincerely,

Ms. Natasha Africa

APPENDIX 2: LETTER OF INFORMATION



Dear Sir/ Madam



Title of the Research Study: Therapeutic health care as an essential service: a case study conducted in Stellenbosch, Western Cape

Principal Investigator/s/researcher: Natasha Africa, B-Tech Somatology

Co-Investigator/s/supervisor/s: Dr. Shanaz Ghuman, PhD, MPH, PG Tertiary Education

Ms. Sinegugu Nkwanyana, M-Tech Somatology

Brief Introduction and Purpose of the Study:

The Covid-19 pandemic has had an enormous impact on many industries worldwide. It limited and, in some instances prohibited operations from proceeding. This decision was based on whether the industry was identified as essential or non-essential. Within South Africa, therapeutic health care services provided by Somatologists were declared as non-essential and were only allowed to operate under advanced lockdown Level 3. For the first time, the question of essential versus non-essential services was raised. With this study, the researcher aims to provide detail on the effect of therapeutic health care services on individual health and wellness, which would motivate why services offered by somatologist should be re-evaluated and classified as essential.

The aim of this study is to:

- To determine the demographics of participants.
- To investigate whether the classification of services offered by Somatologist are essential.
- To recommend guidelines, on therapeutic health care as an essential service

Good day

My Name is Natasha Africa, and I am a M-Tech student at DUT doing my research for my MHSc in Somatology.

I would like to invite you to participate in the research to get recognition for the Therapeutic health care service industry to be classified as essential which would permit them to operate during the Covid-19 Lockdown period.

What is Research

Research can be defined as repeating a search on a topic or study that has not been thoroughly searched with the aim of improving or adding to the current information.

This study will be conducted by myself (the researcher). Should you meet the requirements listed within the inclusion criteria and wish to partake in this study, feel free to ask as many questions as possible for clarity on the study. Participants are entitled to discuss the study with their family and friends and are under no obligation to commit at this stage. For the purpose of this study, you will be provided with a copy of this document (Letter of information) to take home.

Outline of the Procedures:

With this study I would like to ask you to complete a short questionnaire. I, (the researcher) will then send you the questionnaire link via email (using the survey monkey app). The questionnaire needs to be completed within the first five (days) and submitted via the app by clicking the submit button at the end of the questionnaire. Please note that you will only be able to submit the questionnaire once ALL the questions are answered. Please answer the questions as honestly and to the best of your ability. Should you have any questions please feel free to contact me (the researcher)

Once the questionnaire is submitted this information will be used as part of data collection. You may only take part in the study once you have signed and submitted this agreement within the first 3 days (72 hours). Should you not have completed the questionnaire within the 5 days, I will send out an email as a follow-up. Should you fail to respond within 3 days of the follow-up, you will the unfortunately be excluded from the study.

You may partake in this study if you:

- Are male/female
- Over the age of 18
- Visit salon's, spas, and clinics within the Stellenbosch region
- Visit spa's, salons, and clinics on a regular basis

You may not partake in this study if you:

- Are under the age of 18
- Do not visit salons, spas, and clinics on a regular basis
- Salon's, clinics, and spas beyond the Stellenbosch region.
- Submit inaccurate information or miss appointments for submitting documents.

The study will be done using only the online platform. The duration of the study will take 2 years; however, the data will only be collected over a 4-month period.

Codes will be used to maintain client anonymity and confidentiality. Information collected will only be accessible to the researcher, supervisors and stored safely on a USB flash stick.

Risks or Discomforts to the Participant: There will be no risks or discomfort to the participants of this study as it does not involve any form of treatments

Explain to the participant the reasons he/she may be withdraw from the Study:

Your participation will be voluntary, and you may withdraw from the study by not submitting your questionnaire, should you not want to partake any longer.

Benefits:

- Obtaining Masters.
- Accessing therapeutic health care services (Spa's, Salons, Clinics) during the lockdown period.
- Publishing a journal article in an accredited journal.

Remuneration: No form or remuneration will be given to the participants of this study.

Costs of the Study: Participants will not be expected to pay to partake in this study.

Confidentiality: Personal information such as your name and surname will not be required for this study, to protect your identity Only myself and my supervisors will have accessed to all documentation that will be used in this study such as the informed consents and surveys.

Results: Upon completion of this study, the results will be made available for further research purposes, by making it available online.

Research-related Injury: There will be no research related injury in this study.

Storage of all electronic and hard copies including tape recordings:

All information collected in this study will be recorded on a usb (flash drive) and stored safely. Once the study is completed all this information will be destroyed.

Persons to contact in the Event of Any Problems or Queries:(Supervisor and details)

Please contact the researcher (Natasha Africa 078 201 2259) my supervisor (Ms. S Nkwanyana 082 521 7534 or Dr S Ghuman 0825217534) Or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support Dr L Linganiso on 031 373 2577 or researchdirector@dut.ac.za.

APPENDIX 2 (AFRIKAANS): Bylae 2: BRIEF VAN INLIGTING



Liewe Meneer/ Mevrou

Titel van die Navorsingstudie: Terapeutiese gesondheidsorg as 'n noodsaaklike diens: 'n gevallestudie wat in Stellenbosch, Wes-Kaap gedoen is

Hoofondersoeker/s/navorsers: Natasha Africa, B-Tech Somatology

Mede-ondersoeker/s/toesighouer/s: Dr. Shanaz Ghuman, PhD, MPH, PG
Tersiêre Onderwys

Me. Sinegugu Nkwanyana, M-Tech Somatologie

Kort inleiding en doel van die studie:

Die Covid-19-pandemie het wêreldwyd 'n enorme impak op baie bedrywe gehad. Dit het beperk en in sommige gevalle bedrywighede verbied om voort te gaan. Hierdie besluit is gebaseer op die vraag of die bedryf as noodsaaklik of nie-noodsaaklik geïdentifiseer is. Binne Suid-Afrika is terapeutiese gesondheidsorgdienste wat deur Somatoloë gelewer word, as nie-noodsaaklik verklaar en is slegs toegelaat om onder gevorderde vlak 3 van die inperking te funksioneer. Vir die eerste keer is die kwessie van noodsaaklike teenoor nie-noodsaaklike dienste geopen. Met hierdie studie het die navorsers ten doel om besonderhede te verskaf oor die effek van terapeutiese gesondheidsorgdienste op individuele gesondheid en welstand, wat sal motiveer waarom dienste wat

deur Somatoloog aangebied word, herwaardeer en as noodsaaklik geklassifiseer moet word.

Die doel van hierdie studie is om:

- Om die demografie van deelnemers te bepaal.
- Om te ondersoek of die klassifikasie van dienste wat deur Somatoloog aangebied word, noodsaaklik is.
- Om riglyne aan te beveel, op terapeutiese gesondheidsorg as 'n noodsaaklike diens

Goeiedag

My Naam is Natasha Africa, en ek is 'n M-Tech-student by DUT wat my navorsing vir my MHS in Somatologie doen.

Ek wil u graag uitnooi om aan die navorsing deel te neem om erkenning te kry dat die Terapeutiese gesondheidsorgdiensbedryf as noodsaaklik geklassifiseer word wat hulle in staat sal stel om tydens die Covid-19-inperkings tydperk te funksioneer.

Wat is navorsing?

Navorsing kan gedefinieer word as die herhaling van 'n soektog oor 'n onderwerp of studie wat nie deeglik gesoek is met die doel om die huidige inligting te verbeter of by te voeg nie. Hierdie studie sal deur myself (die navorser) gedoen word. As u

aan die vereistes voldoen wat binne die insluitingskriteria gelys word en aan hierdie studie wil deelneem, kan u gerus soveel vrae as moontlik vra vir duidelikheid oor die studie. Deelnemers is geregtig om die studie met hul familie en vriende te bespreek en is onder geen verpligting om op hierdie stadium te pleeg nie. Vir die doel van hierdie studie sal u voorsien word van 'n afskrif van hierdie dokument (Brief van inligting) om huis toe te neem.

Uiteensetting van die prosedures:

Met hierdie studie wil ek u vra om 'n kort vraelys te voltooi. Ek, (die navorser) sal dan vir jou die vraelysskakel per e-pos stuur (met behulp van die opname-aapprogram). Die vraelys moet binne die eerste vyf (dae) voltooi word en via die app ingedien word deur op die indieningsknoppie aan die einde van die vraelys te klik. Let asseblief daarop dat u slegs die vraelys sal kan indien sodra al die vrae beantwoord is. Beantwoord asseblief die vrae so eerlik en na die beste van jou vermoë. Indien u enige vrae het, kontak my asseblief gerus (die navorser)

Sodra die vraelys ingedien is, sal hierdie inligting as deel van data-insameling gebruik word. U mag slegs aan die studie deelneem sodra u hierdie ooreenkoms binne die eerste 3 dae (72 uur) onderteken en ingedien het. As u nie die vraelys binne die 5 dae voltooi het nie, sal ek 'n e-pos as 'n opvolg uitstuur. As u nie binne 3 dae na die opvolg reageer nie, sal u ongelukkig uitgesluit word van die studie.

U kan aan hierdie studie deelneem as u:

- Is manlik/vroulik • Ouer as 18 jaar
- Besoek salons, spa's en klinieke in die Stellenbosch-streek
- Besoek spa's, salonne en klinieke op 'n gereelde basis

Jy mag nie aan hierdie studie deelneem as jy:

- Onder die ouderdom van 18 jaar
- Moenie gereeld salonne, spa's en klinieke besoek nie
- Salon's, klinieke en spa's buite die Stellenbosch-streek.
- Dien onakkurate inligting in of mis afspraak vir die indiening van dokumente.

Die studie sal slegs met behulp van die aanlynplatform gedoen word. Die studie sal 2 jaar duur; die data sal egter slegs oor 'n tydperk van 4 maande versamel word. Kodes sal gebruik word om kliënt anonimiteit en vertroulikheid te handhaaf. Inligting wat ingesamel word, sal slegs toeganklik wees vir die navorser, toesighouers en veilig op 'n USB-flitsstokkie gestoor word.

Risiko's of ongemak vir die deelnemer: Daar sal geen risiko's of ongemak vir die deelnemers van hierdie studie wees nie, aangesien dit geen vorm van behandelings behels nie

Verduidelik aan die deelnemer die redes waarom hy/sy aan die studie onttrek kan word:

Jou deelname sal vrywillig wees, en jy kan jou aan die studie onttrek deur nie jou vraelys in te dien nie, indien jy nie meer wil deelneem nie.

Voordele:

- Die verkryging van meesters.
- Toegang tot terapeutiese gesondheidsorgdienste (Spa's, Salons, Klinieke) gedurende die inperkingstydperk.
- Publiseer 'n joernaalartikel in 'n geakkrediteerde joernaal.

Vergoeding: Geen vorm of vergoeding sal gegee wees nie

Koste van die studie: Daar sal nie van deelnemers verwag word om te betaal om aan hierdie studie deel te neem nie. Vertroulikheid: Persoonlike inligting soos jou naam en van sal nie nodig wees vir hierdie studie nie, om jou identiteit te beskerm. Net myself en my studieleiers sal toegang hê tot alle dokumentasie wat in hierdie studie gebruik sal word, soos die ingeligte toestemmings en opnames.

Resultate: Na voltooiing van hierdie studie sal die resultate beskikbaar gestel word vir verdere navorsingsdoeleindes, deur dit aanlyn beskikbaar te stel.

Navorsingsverwante besering: Daar sal geen navorsingsverwante besering in hierdie studie wees nie.

Berging van alle elektroniese en harde kopieë, insluitend bandopnames: Alle inligting wat in hierdie studie ingesamel word, sal op 'n USB (flash drive) aangeteken word en veilig gestoor word. Sodra die studie voltooi is, sal al hierdie inligting vernietig word.

Persone om te kontak in die geval van enige probleme of navrae: (Toesighouer en besonderhede) Kontak asseblief die navorser (Natasha Africa 078 201 2259) my studieleier (me S Nkwanyana 082 521 7534 of Dr S Ghuman 0825217534) Of die Institusionele Navorsingsetiekadministrateur by 031 373 2375. Klagtes kan by die Direkteur: Navorsing en Nagraadse Ondersteuning Dr L Linganiso by 031 373 2577 of researchdirector@dut.ac.za aangemeld word.

APPENDIX 3: CONSENT



Full Title of the Study: Therapeutic health care as an essential service: a case study conducted in Stellenbosch, Western Cape

Names of Researcher/s: Natasha Africa

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Ms. Natasha Africa (researcher), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: _____,
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.

- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may
relate to my participation will be made available to me.

_____	_____	_____	_____
Full Name of Participant	Date	Time	Signature /
	Right		

Thumbprint

I, _____ (name of researcher) herewith confirm that the above participant has been fully



informed about the nature, conduct and risks of the above study.

_____		_____	_____
Full Name of Researcher		Date	Signature
_____		_____	
Full Name of Witness (If applicable)		Date Signature	
_____		_____	
Full Name	of	Legal Guardian	(If applicable)
Date			Signature

APPENDIX 3 (AFRIKAANS) Bylae 3: TOESTEMMING



Volledige titel van die studie: Terapeutiese gesondheidsorg as 'n noodsaaklike diens: 'n gevallestudie wat in Stellenbosch, Wes-Kaap

Name van Navorser/s: Natasha Africa

Verklaring van ooreenkoms om aan die navorsingstudie deel te neem:

- Ek bevestig hiermee dat ek deur die navorser, Natasha Africa, ingelig is navorser), oor die aard, gedrag, voordele en risiko's van hierdie studie - Navorsingsetiekkларing Nommer: __,

- Ek het ook die bogenoemde geskrewe inligting ontvang, gelees en verstaan (Deelnemende Brief van Inligting) rakende die studie.
- Ek is bewus daarvan dat die resultate van die studie, insluitend persoonlike besonderhede rakende my geslag, ouderdom, geboortedatum, voorletters en diagnose anoniem in 'n studieverlag verwerk sal word.
- In die lig van die vereistes van navorsing stem ek saam dat die data wat tydens hierdie studie ingesamel is, deur die navorser in 'n gerekenariseerde stelsel verwerk kan word.
- Ek kan, op enige stadium, sonder vooroordeel, my toestemming en deelname aan die studie terugtrek
- Ek het genoeg geleentheid gehad om vrae te vra en (uit eie wil) myself bereid te verklaar om aan die studie deel te neem.
- Ek verstaan dat beduidende nuwe bevindings ontwikkel het gedurende die loop van hierdie navorsing wat kan My deelname sal aan my beskikbaar gestel word.

Volle naam van deelnemer	Datum	Tyd	Handtekening / Reg Duimdruk
--------------------------	-------	-----	--------------------------------

Ek,(naam van navorser) hiermee bevestig dat die bogenoemde deelnemer ten volle ingelig oor die aard, gedrag en risiko's van bogenoemde studie.

Volle naam van Navorsers
Handtekening

Datum

Volle Naam van Getuie (Indien van toepassing) Datum Handtekening
Volle

Naam van Legal Guardian (indien van toepassing) Datum
Handtekening

APPENDIX 4: QUESTIONNAIRE

Therapeutic Health Care as an essential service: a case study conducted in Stellenbosch – Western Cape

1. Your age group:

18-29	30-39	40-49	50+

2. What is your gender?

Female	Male	Other

3. Current employment status:

Employed	Unemployed	Retired	Other

4. Indicate the type of health care institution you are visiting today:

Spa	Salon	Clinic

5. Indicate for which of the following purposes you, personally, visit the spa/ clinic/ salon (tick all that apply):

Reason for visiting the spa/ salon/ clinic	
5.1 Relaxation	
5.2 Purchases	

5.3 Concerns/conditions (e.g. Laser treatment, Chemical peel, weight loss program etc.)	
5.4 Beauty treatment	
5.5 Advice/ recommendations	
5.6 Health reasons	
5.7 Treatments other than beauty treatments	
5.8 Other	

If you ticked 'OTHER' please specify your reason



6. How many times, on average, do you visit your salon/spa/clinic?

Less than once a month	Once a month	Twice a month	More than twice a month

7. Select **at most two words** from the list below that best describe “well-being” to you

Reason	
7.1 Health	
7.2 happiness	
7.3 Prosperity	
7.4 Welfare	
7.5 None of the above	

8. Indicate your agreement with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
8.1 Visiting my Salon/ Spa/ Clinic improves my well-being					
8.2 Visiting my Salon/ Spa/ Clinic improves my state of health					

9. Indicate your agreement that visiting your Salon/ Spa/ Clinic benefits you in the following way:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
9.1 Emotionally					
9.2 Physically					
9.3 Mentally					
9.4 Socially					
9.5 Spiritually					

10. Indicate how the effect of COVID-19 on the Therapeutic industry (closures etc) has affected your health and well-being:



Large negative effect	Small negative effect	No effect	Small positive effect	Large positive effect

11. Identify which of the following best describes the effect that Manual Therapeutic Practice

has on you:

Improves health	
Improves well - being	
None of the above	
Improves both Health and Wellness	

THANK YOU!

APPENDIX 4(AFRIKAANS) Bylae 4: VRAELYS



Terapeutiese Gesondheidsorg as 'n noodsaaklike diens: 'n gevallestudie wat in Stellenbosch – Wes-Kaap gedoen is

1. Jou ouderdomsgroep

18-29	30-39	40-49	50+

2. Wat is jou geslag?

Manlik	Vroulik	Ander

3. Huidige indiensnemingstatus

In diens	Werkloos	Afgetree	Ander

4. Dui die tipe gesondheidsorginstelling aan wat jy vandag besoek:

Spa	Salon	Kliniek

5. Dui aan vir watter van die volgende doeleindes u persoonlik die spa / kliniek / salon besoek (merk alles wat van toepassing is):

Rede vir die besoek van die Spa/ Salon/ Kliniek	
5.1 Ontspanning	
5.2 Aankioe	
5.3 Bekommernisse/ voorwaardes (bv. Laserbehandeling, Chemiese skil, gewigsverliesprogram)	
5.4 Skoonheidsbehandeling	
5.5 Advies/aanbevelings	
5.6 Gesondheidsredes	
5.7 Behandelings anders as skoonheidsbehandelings	
5.8 Ander	

As jy 'ANDER' gemerk het, spesifiseer asseblief jou rede _____

6. Hoeveel keer besoek jy gemiddeld jou salon/spa/kliniek?

Minder as ween keer per maand	Een keer per maand	Twee keer per maand	Meer as twee keer per maand

7. Kies op die meeste twee woorde uit die onderstaande lys wat die beste beskryf "welsyn" vir jou

Redes	
7.1 Gesondheid	
7.2 Geluk	
7.3 Voorspoed	
7.4 Weslyn	
7.5 Nie een van die bogenoemde nie	

8. Dui jou ooreenkoms aan met die volgende stellings:

	Sterk verskil	Verskil	Neutrale	Saamstem	Sterk saamstem
8.1 Besoek my Salon/ Spa/ Kliniek vebeter my welsyn					
8.2 Besoek aan my Salon / Spa/ Klinike verbeter my gesondheidstoestand					

9. Dui jou ooreenkoms aan dat die besoek van jou Salon/ Spa/
Kliniek jou op die volgende manier bevoordeel:

	Sterk verskil	Verskil	Neutrale Saamstem	Saamstem	Sterk saamstem
9.1 Emosioneel					
9.2 Fisies					
9.3 Psigies					
9.4 Sosiaal					
9.5 Geestelik					

10. Dui aan hoe die effek van COVID – 19 op die Terapeutiese bedryf (sluitings, ens.) jou gesondheid en welsyn beïnvloed het:

Groot negatiewe effek	Klein negatiewe effek	Geen effek	Klein positiewe effek	Groot poositiewe effek

11. Identifiseer watter van die volgende die beste beskryf die effe wat Handleiding Terapeutiese Praktyk Het op jou:

Verbete gesondheid	
Verbeter Welsyn	
Nie een van die begenoemde nie	
Verbeter gesondheid en welsyn	

DANKIE!

APPENDIX 5: ADVERT FOR PARTICIPANTS



Essential or Non – Essential???

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HAVE YOUR SAY ON THE IMPACT OF COVID – 19 ON
YOUR TREATMENTS!!

If you are over the age of 18, visit spa's/ salons/ clinics on a regular basis and would like to share your opinion with regards to the Therapeutic Health Care which is classified as non – essential. Then you are invited to complete a short online survey!!!

For details on how to get involved please contact:

Natasha Africa

Cell / WhatsApp: 078 201 2259

Email: africanatasha4@gmail.com

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