

**AN ANALYSIS OF THE SOMATOLOGY PROGRAMME OFFERED AT SOUTH  
AFRICAN UNIVERSITIES OF TECHNOLOGY TO DETERMINE WHETHER IT  
MEETS THE NEEDS OF INDUSTRY**

By

**KIVESHNI RAMMANHOR**

Dissertation submitted in fulfilment of the requirements for the

**Master's Degree in Technology: Somatology**

at the

**Durban University of Technology**

**KwaZulu-Natal**

**June 2014**

**Supervisor: Prof. R. Bhagwan**



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## **ABSTRACT**

The beginning of the 20<sup>th</sup> century presented the Somatology profession with unprecedented challenges of acquiring a scientific base and achieving professionalisation. It is in this milieu that a few research studies were previously undertaken with regard to Somatology education however, none particularly focused in relation to areas that are preparing graduates for industry. The current study was a national study that explored the existing National Diploma offering through the lens of students, educators and members of the Durban University of Technology's Advisory Board. In particular, it focused on developing broad guidelines to guide academics on what further content was required to be integrated into the current Somatology education. A triangulated approach using both quantitative and qualitative methods was used to guide the operationalisation of the research process.

Five Universities of Technology participated in the study, viz. Cape Peninsula University of Technology, Central University of Technology, Durban University of Technology, Tshwane University of Technology and the University of Johannesburg. Third year and B.Tech students were surveyed with regard to the current Somatology Programme and what further aspects needed to be integrated into it to better prepare graduates for industry. In addition, in-depth interviews were also held with ten academics, two from each University of Technology, to examine what they thought needed to be included in education to strengthen the current programme. The same was done through a focus group discussion with members of the Durban University of Technology Advisory Board.

A programme analysis of current content being taught at the five Universities was also undertaken. The results reflected that although most of the samples were satisfied with the current educational programme, they still believed that gaps existed and that graduates were still not adequately prepared for industry. It was found that both students and educators saw the need for more therapies to be included in the training. Both educators and the Advisory Board sample also saw the need for a stronger emphasis to be placed on practical skill development. The Advisory Board sample also strongly articulated for training to occur in an industry context as opposed to the University based experiential setting. Using data from these multiple

samples, a set of guidelines was developed and presented. These guidelines were based on what further therapies needed to be integrated into education. The Duke Integrative Medicines Wheel of Health was adopted as the theoretical framework of the study. It was also utilised to identify specific areas that needed to be interwoven into education to further strengthen graduates' preparedness for industry.

**Keywords**

Somatology, Beauty therapy, Holistic health and Education

## **DECLARATION OF AUTHORSHIP**

I, KIVESHNI RAMMANHOR, do hereby declare that the work within this research dissertation, submitted in fulfilment of the requirements for the degree MASTER'S DEGREE IN TECHNOLOGY: SOMATOLOGY at the DURBAN UNIVERSITY OF TECHNOLOGY, KWA-ZULU NATAL, is my own independent work. To the best of my knowledge and belief, this thesis has not been submitted to any other institution as part of an academic qualification and contains no material previously published or written by any other person except where due reference is made.

**Signature of Student/Researcher:** .....

**Date:** .....

## DEDICATION

I wish to dedicate this piece of work in its entirety to my first born Raihil Rammanhor (Born 4<sup>th</sup> August 2011). You have brought so much love, joy and happiness that words cannot express. I look forward to watching you grow into a fine young gentleman with high hopes, dreams and ambitions. I know that I will be proud of you no matter where life takes you. This study is also dedicated to my loving husband Duran, parents Jaya and Roselyn Naidoo and grandparents Humphrey (1933-2013) and Chooka Naidu, who all played a pivotal role in my upbringing and acquiring my educational qualifications.

May this project be a source of inspiration to all the staff and students in the Somatology programmes across all the Universities of Technology in South Africa.

***“Education is the most powerful weapon which you can use to change the world.” - Nelson Mandela***

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***“Jai Ma Lakshmi”***

## **ABBREVIATIONS AND ACRONYMS**

With reference to this study the following abbreviations and acronyms apply:

AHPSCA	-	Allied Health Professions Council of South Africa
B. TECH	-	Bachelor of Technology
CAM	-	Complementary and Alternate Medicine
CHE	-	Council of Higher education
CPUT	-	Cape Peninsula University of Technology
CUT	-	Central University of Technology
DUT	-	Durban University of Technology
ETQA	-	Education and Training Quality Assurance Body
HEI's	-	Higher Education Institutions
HEQC	-	Higher Education Qualification Committee
HPSCA	-	Health Professions Council of South Africa
IPL	-	Intense Pulsed Light
M. TECH	-	Master of Technology
N. DIP	-	National Diploma
NQF	-	National Qualification Framework
PAB	-	Professional Accreditation Body
SAQA	-	South African Qualification Authority
TUT	-	Tshwane University of Technology
UJ	-	University of Johannesburg
UOT'S	-	Universities of Technology



## OPERATIONAL TERMS

In this section, definitions of terms which were operationalised in the study are clarified.

**Somatologist:** Is a person who is interested in assisting others in improving their general wellness and aesthetic appearance through information and practice of healthy lifestyle habits, product use and clinic treatments. The therapist activities include treatments such as massage, reflexology, aromatherapy, electro-therapy hydrotherapy, exercise, nutritional guidance, hand, foot, facial care, epilation and electrolysis treatments (Durban University of Technology 2013).

**Universities of Technology (UoT's):** This refers to institutions (previously called Technikons) which offer a range of programmes that are vocationally and/ or professionally-orientated, primarily at the undergraduate level (Council on Higher Education 2012).

**Advisory board:** This board is set up to provide current information and impart professional knowledge in particular areas or subjects, and/or to advise on the development of policies or the delivery of services (Home Affairs Bureau 2003). For the purpose of this study this term refers to an elected committee comprising of industry representatives, students, medical experts, academics, alumni, entrepreneurs and DUT co-operative education representatives. It is chaired by a member of industry and not the university. The role of the Somatology advisory board is to advise the programme on what skills and needs are currently required in the market place, thereby impacting on Somatology education.

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# CHAPTER ONE

## INTRODUCTION

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***“Health is a state of complete harmony of the body, mind and spirit. When one is free from physical disabilities and mental distractions, the gates of the soul open.” - Yogacharya Iyengar***

### 1.1 INTRODUCTION

Globally there has been a renaissance in beauty. Although Somatology originated as a field which focused on beauty, it has undergone a shift in paradigm from this type of treatment to include a more holistic approach that seeks to treat the mind body and spirit in its entirety. This contemporary rich and holistic view of health has thus prompted Somatology professionals to incorporate therapeutic modalities that engage mind-body and spirit in all their treatment practices.

Somatology is a pioneering field in relation to beauty and this is exactly where Somatology education has the roots of its beginning. With a move towards holistic health and wellness, Somatology education has come under greater scrutiny to extend its teaching content to include both traditional therapies and those technologically advanced modalities. Very little empirical work has been undertaken in Somatology in South Africa, particularly related to teaching content.

It is against this rapidly changing beauty landscape and the evolving retail industry that this study sought to inquire what further contemporary Somatology content could be added to existing education, to ensure that students were better prepared to meet the needs of industry. Seminal research by Vosloo (2009) highlighted the need to focus on developing Somatology education. She stated that the greatest challenge in developing the Somatology profession was re-curriculation. Given that this process was underway across the Universities of Technology in South Africa, this prompted the researcher to conceptualise a study that would lend to this process.

The following section presents the rationale and research objectives of the study. The use of both quantitative and qualitative methodologies as part of a triangulated approach is discussed, followed by the theoretical components of the conceptual framework for this study. The dissertation structure is then presented.

## **1.2 RESEARCH BACKGROUND**

### **1.2.1 CONCEPTUALISING SOMATOLOGY**

The historical roots of Somatology are embedded in the beauty and cosmetology industry (Vosloo, 2009). The word 'Soma~tology' is derived from Greek roots meaning 'body' and 'study', thus suggesting that Somatology is the study of the body (Holetzky 2006: 1). Due to the lack of literature on the word Somatology, the literature search was extended using the keywords 'beauty' and 'beauty therapy'. According to Rhodes (2006), as well as Sachs and Voorhees (2010), the term 'beauty' is subjective and not confined to a single defining feature. Sharma and Black (2001: 913) expressed that whilst "the beauty industry is associated with the superficial transformation of appearance," the term beauty therapy "denotes a more profound and restorative kind of transformation involving mind, body or both" thus supporting its link to health and wellness as well.

### **1.2.2 SOMATOLOGY IN PRACTICE**

According to Sharma and Black (2001: 917) the individual therapist works at the interface of "a number of different discourses and sets of institutional practices-the medical/therapeutic, the profit-oriented imperatives of the beauty industry and the everyday world of ordinary women". Beauty therapy also includes widely varying degrees of technical skill and theoretical understanding, which are designed to temporarily change physical appearance, eg. make-up and nail extensions (Sharma and Black 2001). Therapists are also referred to as "Aestheticians" (Black 2002: 5) and carry out a range of facial and body treatments such as eye-brow shaping or tinting, removal of hair through waxing or electrolysis, and slimming treatments

(Vosloo 2009). Therapists may also engage in other healing modalities such as aromatherapy, reflexology and massage (Reid 2006).

Whilst the individual beauty therapist may specialise in certain treatments, they are expected to have basic knowledge of the full range of standard treatments (Sharma and Black 2001). The most popular form of treatments are designed for pampering and grooming and include facials, pedicures and manicures (Black 2002). Facial therapy has become a necessity amongst modern women as part of a proactive approach to anti-aging and skin care (Strausfogel 2010).

Health treatments performed by Somatologists as covered by the National Diploma (N. Dip) and Bachelor of Technology (B. Tech) curricula offered by Universities of Technology (UoT's) in South Africa, are built on massage therapy, aromatherapy and reflexology (Reid 2006). Massage therapy uses a range of basic strokes from gliding, to kneading, direct pressure, circular friction and cross-fibre friction (Roseberry 2009). Whilst no clinical evidence exists on the efficacy of massage in a beauty context, research in allied health and medical fields have documented that massage plays a positive role in emotional wellness and has a range of positive health outcomes (Hall, McKenna and Griffiths 2010; Cooke and Ernst 2000; Labrique-Walusis, Keister and Russell 2010; Wilkinson et al. 1999). These benefits include enhanced blood circulation, improving back problems, energising the body, and alleviating stress and anxiety (Carpentier 2010).

Reflexology, which is an ancient form of healing that focuses on the feet, has also gained popularity as a clinical or therapeutic modality which promotes relaxation, healing and well-being (Lakasing and Lawrence 2010). Aromatherapy is based on the premise that smell or aroma triggers or regulates a range of bodily functions such as temperature, thirst, sleeping, and emotions such as anger or happiness (Chopra 2000). Massage with essential oils distilled from plants has proven to have a potent effect on easing muscle tension, improving mood, relieving migraines, insomnia, treating colds and flu, and easing menopausal symptoms (Roseberry 2009; Chopra 2000).

Given the wide scope of practice Somatology graduates find employment opportunities in various fields within their scope of practice, which includes salons, health and wellness centres, international shipping lines, retail sectors, or lecturing in the public and private education sector (Borg 2009). Somatologists may also become members of a medically orientated environment (Campbell 2012) which consists of a multi-disciplinary team of cosmetic surgeons and dermatologists for pre- and post-surgical procedures (Reid 2006). Through the inclusion of subjects such as Business Practice and Experiential learning, graduates are also encouraged to become entrepreneurs of their own micro or medium businesses.

### **1.2.3 SOMATOLOGY EDUCATION IN SOUTH AFRICA**

Somatology originated as a six month beauty culture course with a manicure and pedicure module (Reid 2006). It has since advanced to include highly skilled training which includes aspects of exercise, nutrition, holistic aromatherapy and reflexology, as well as other traditional skincare techniques, with a more holistic approach to the profession (Vosloo 2009). The extent to which these facets are being taught, however, remains unknown. The Somatology qualification is currently offered at five Universities of Technology viz. Durban University of Technology (DUT), Cape Peninsula University of Technology (CPUT), Central University of Technology (CUT), Tshwane University of Technology (TUT) and the University of Johannesburg (UJ). The specific teaching content across all levels at the different institutions has been unclear.

The Somatology qualification is registered with the South African Qualification Authority (SAQA) framework and is based at Level 6 of the National Qualification Framework (NQF). These qualifications consist of an undergraduate three year full-time or four year part-time National Diploma (N. Dip). Post-diploma and postgraduate studies include a Bachelor of Technology (B. Tech), Master of Technology (M. Tech) and a Doctoral Degree in Technology (D. Tech) (SAQA 2013). After attaining a Somatology qualification, a Somatologist may pursue an international qualification through a variety of international committees or councils (Vosloo 2009).

In order to elevate the needs of the Somatology industry and to offer a qualification of sound repute, all private and public Institutions must have met the requirements to be registered as a higher education provider (SAQA 2013). The Higher Education Act (Act No. 101 of 1997), and the regulations for the registration of Higher Education Institutions (HEI's) 2002, make it compulsory for institutions offering full qualifications in higher education to register with the National Department of Higher Education and Training (NQF level 5 to 10). Before an institution and its programmes are registered, they must be accredited by the Higher Education Quality Committee (HEQC). Accreditation means the institution has been evaluated as to whether it has the resources, capacity and expertise to offer an acceptable level of education.

By complying with the requirements of the Higher Education Act and regulations, it is ensured that students obtain qualifications that are aligned with the National Qualifications Framework (NQF) and are properly recognised. All Higher Education institutions have to be compliant with the quality assurance requirements which are governed by Higher Education Quality Committee (HEQC) of the Council on Higher Education (CHE). This statutory body is responsible for promoting and overseeing quality assurance in higher education. Accreditation is awarded based on evaluation.

The Professional Accreditation Body (PAB) is the Education and Training Quality Assurance Body (ETQA) for all health and skin care training which falls under the field of Health Sciences and Social Services. It is through this body that institutions are accredited for related health and beauty training modalities. Although Somatologists are not registered with a statutory council such as the Health Professions Council of South Africa (HPSCA) or the Allied Health Professions Council of South Africa (AHPSCA), there have been numerous arguments made for the professionalisation of the field (Vosloo 2009).

#### **1.2.4 SOMATOLOGY EDUCATION AT UoT's**

In recent times democracy has signalled transformation and reform, which is also currently reflected in Higher Education (HE) settings (Pityana 2006). According to Miller (2005: 180) transformation of the HE sector has brought with it the need "to



serve a new social order” and to meet the pressing needs of, and respond to, new learning and opportunities. Miller (2005: 180) further stated that “higher education needs to be committed to responding to the needs of industry in terms of course content and research”. Within this setting and as part of their mission, comprehensive institutions and Universities of Technology (UoT’s) have to produce graduates who are confident to enter the workplace (Pityana 2006). Curriculum development as driven by research and the production of new knowledge are the current initiatives in higher education (Hargreaves 2008; Wolf and Hughes 2008).

Somatology is positioned in this context, particularly within Vosloo’s (2009) argument for professionalisation, as more than 70% of Somatologists surveyed in her study agreed that registration with a Statutory Body was critical. More than 50% said that registration should be with the Allied Health Professions Council of South Africa. Vosloo (2009) identified only a few content areas that could be included in the professional Somatology programme in her study. She felt that more content to rebuild education was needed as part of the re-curriculation and professionalisation drive. She argued that the need for a professional body that brings together beauty therapy, aromatherapy and reflexology was critical to allow for integrated practice in these areas. The impetus for this study can be found herein, with the central purpose being to explore specific content that could strengthen Somatology education in South Africa.

#### **1.2.5 NATIONAL DIPLOMA: SOMATOLOGY QUALIFICATION**

The Somatology qualification comprises of a three-year full-time National diploma based at a level six on the National Qualification framework (NQF), with a 360 credit rating. The National Diploma is also offered over a four-year extended programme to candidates placed in this particular programme. The subjects for the National Diploma are reflected on the following page in Table 1.

**TABLE 1: THE NATIONAL DIPLOMA: SOMATOLOGY CURRICULUM**

Progression period	Full Time Programme	Extended Curriculum
YEAR OF STUDY	THREE YEAR MINIMUM	FOUR YEAR MINIMUM
<b>Year One</b>	Aesthetics I Anatomy and Physiology I Biotics I Communication Skills 1 Nutrition I Science I Soma Techniques I	Aesthetics I Anatomy and Physiology I Communication Skills 1 Wellness Module 1
<b>Year Two</b>	Anatomy and Physiology II Biotics II Business Practice I Nutrition II Science II Socio-Psychology I Soma Techniques II Beauty Technology Practice II	Biotics I Nutrition I Science I Soma Techniques I Wellness Module II
<b>Year Three</b>	Applied Bio. Science (Module 1) Applied Bio. Science (Module 2) Biotics III Nutrition III Socio-Psychology III Soma Techniques III Soma Techniques Project III	Anatomy and Physiology II Biotics II Nutrition II Science II Socio-Psychology I Soma Techniques II
<b>Year Four</b>		Applied Bio. Science (Module 1) Applied Bio. Science (Module 2) Biotics III Nutrition III Socio-Psychology III Soma Techniques II Soma Techniques Project III

[Source: Department of Chiropractic and Somatology Handbook 2013]

In a South African context a curriculum can be defined as a broad concept including aspects such as standard settings, learning programme development and delivery, and quality assurance of the delivery process (SAQA 2013). The curriculum presented to Somatology students offers a three-year minimum (full-time) and a four year (extended) qualification known as the National Diploma in Somatology (See *Table 1*). The programme is divided into theoretical and practical components. Practice is initially simulated on fellow learners before being applied in clinical

practice. In order for the qualified Somatologist to function as a productive member of a business, it is essential that all the theoretical information and the practical components of their course are practiced, as in real life situations. In order to address this, the subject Beauty Technology Practice II (second year) and Soma Techniques Project II (third year) has to be completed in order for the student to qualify for their National Diploma: Somatology. These practical subjects provide the forum in which students first encounter real practices with clients and are assessed on treatments performed, professional attribute towards clients and fellow therapists, as well as their managerial skills. All these aspects facilitate the transferability of skill and theoretical learning into work contexts (Seyama 2013).

After completion of the Diploma in Somatology, students have an opportunity to register for the following international affiliations in a personal capacity, in order to obtain an international qualification. These qualifications are supported by the beauty industry world-wide.

- **ABTEC** (Association of Beauty Therapy & Cosmetology)
- **CIBTAC** (Confederation of international Beauty Therapy & Cosmetology)
- **CIDESCO** (Comité International D' Esthetique Et De Cosmétologie)
- **CITY AND GUILDS**
- **IBTA** (International Beauty Team Alliance)
- **ITEC** (International Therapy Examination Council)
- **SAAHSP** (South African Association of Health and Skincare Professionals)

The curriculum has therefore been designed to give the diplomate a working knowledge and experience of all facets of Somatology, in order that they can contribute to a positive role in the general health care and wellness of individuals.

### **1.3 RATIONALE FOR THE STUDY**

The Somatology industry has grown rapidly in recent times, bringing greater demands from employers and clients in search of expertise in therapists. Producing

graduates that are work-ready has become one of the significant and fundamental mandates of South African Higher Education Institutions (HEI's) (Seyama 2013). This requires that training programmes readily offer qualified therapists with a notion of greater understanding of theoretical and practical knowledge through observed changes that occur globally. In keeping with the aforementioned, the Somatology programme continuously aims to provide students with vocational education and training not only to provide them with opportunities to cultivate self-assurance and become proud practitioners of the industry, but also to equip them with professional skills, expertise and appropriate knowledge. Higher Education Institutions that offer Somatology also need to be readily committed to the changes and needs of industry to allow Somatologists to be pioneers in the field.

A review of post-graduate research in the Somatology field reveals limited research in the Somatology discipline with very few studies related to education. Seminal studies have focused on specific aspects within the Somatology domain such as the "Specific cosmetic and skincare needs of women of colour in South Africa" (Teixeira 2006); "Manicure and pedicure hygiene practices in selected health and skincare salons" (Ferreira 2010); "The self-management practice of Somatologist in private practices in Pretoria north" (Richter 2010); "The effects of therapeutic reflexology on cervical cancer patients receiving radiation oncology" (Todd 2010) and "The perceived proficiency of newly-qualified Somatology graduates in using electrical equipment in modern health and skin care industry" (Campbell 2012). Articles that were found focused on "The experiences of private somatology therapists on their self-management in a private practice" (Richter and Jooste 2013) and "Sportsmen's experiences at a Somatology clinic receiving a sport massage" (Jooste, Khumalo and Maritz 2013); "Sportsmen's experience of the impact of massage by Somatologists in enhancing aerobic performance" (Jooste and Khumalo 2012). A Conference paper that was located focused on work-integrated-learning in respect of Somatology students (Seyama 2013).

After reviewing this literature it was established that little work had been focused on issues related to Somatology education specifically, except for the work of Vosloo (2009). More importantly, no research studies had been undertaken relating to the teaching of subject content and how to further enhance it.

This led to the impetus for the current study, which focused on exploring what was currently being taught and what gaps existed based on students' experience in the experiential clinic environment. Gaps based on what educators and members of the industry believed needed to be added to strengthen the current educational programme were also considered. Hence the research study titled ***“An analysis of the Somatology programme offered at South African Universities of Technology to determine whether it meets the needs of industry.”***

The study was operationalised by conducting surveys with third-year students, in-depth interviews with academics, and a focus group discussion with members of the Somatology advisory board (DUT). In addition, the course outlines of the Somatology Programme across all UoT's in South Africa were analysed.

This study was considered to have value in relation to all three of the aforementioned samples for the following reasons:

- Educators could become more aware of the gaps identified by students and academics from other institutions through the research effort, and begin to introduce new content or strengthen existing content in relation to the data received. This would also benefit the re-curriculation process occurring at UoT's across the country.
- The views and opinions of Advisory board members, which comprises of Spa owners, retail managers, and representatives from the medical field etc. would lend a diverse yet important view with regard to what educators need to build into current teaching. The information from these stakeholders was vital in addressing gaps or strengthening specific areas so as to ensure greater professional preparation and employability of graduates in industry.
- Students' views were also important, particularly in the context of DUT's drive to become more student centered.

## **1.4 THE AIM OF THE STUDY**

The primary aim of this study was to analyse the Somatology Programme at South African Universities of Technology to determine whether it meets the needs of industry.

## **1.5 RESEARCH OBJECTIVES**

The research objectives of the study were as follows:

- To explore the views and opinions of Somatology educators and students at UoT's in South Africa, with regard to the current Somatology education programme.
- To analyse the course components of current Somatology curricula at all UoT's with a view to identifying gaps that warrant attention.
- To explore the views of members of the Somatology Advisory Board with regard to what further knowledge and skills were required by graduates, to prepare them for industry.
- To provide recommendations to improve Somatology education at UoT's in South Africa to better meet the needs of industry.

## **1.6 RESEARCH METHODOLOGY**

This study was guided by both quantitative and qualitative research methodologies. The qualitative and quantitative paradigms were both optimised to source data from diverse samples to shed light on what was required to strengthen the existing Somatology education programme to better prepare graduates for industry.

Qualitative research approaches seek to 'understand' through a process of inquiry the broad interconnected pattern of variables, whereas quantitative research seeks to investigate the strength of statistical relationships between variables (Graziano and Raulin 2000). Qualitative research addresses issues of quality by dealing with validity, practicality and effectiveness (Jansen and Christie 1999). The major goal of this process is to describe and analyse functioning in a natural setting from a constructivist approach, which allows for multiple meanings from participant

feedback (Ivankova 2010). In contrast, quantitative research tests theories about reality and cause or effect, and uses quantitative measures to test hypotheses. The major goal in quantitative research is to describe trends or explain relationships between variables by determining the frequency, means and standard deviations (Jansen and Christies 1999). Quantitative studies are either descriptive, which establishes association between variables; or experimental, which establishes causality (Ivankova 2010).

Despite their theoretical differences, both research methods can “play an equally complementary role in knowledge building” (Bhagwan, 2002: 17). In order to embrace the best of both paradigms, a mixed method approach can be implemented by a process of triangulation. Triangulation encompasses “blending characteristics of qualitative and quantitative techniques by collecting its data and results, analysing these in parallel with each other and then merging them together to develop a more complete understanding or to compare the different results” (Creswell, Plano-Clark and Garret 2008: 68). Triangulation is critical in facilitating interpretative data and thus establishing data trustworthiness. It requires researchers to check the extent of qualitative sources and is reinforced by quantitative perspectives and *vice versa* (Maree and Westhuizen 2007). For the purpose of this study the process of triangulation was adopted to ascertain as to whether the views of students and educators were aligned, or at a disjuncture from each other.

## **1.7 THEORETICAL FRAMEWORK: THE DUKE INTEGRATIVE MEDICINES’ WHEEL OF HEALTH**

Given the lack of literature in the Somatology field, the researcher had to explore other disciplines to find a theoretical framework to guide the study. The Duke Integrative Medicine Model was found to be best suited to understand Somatology as a profession that seeks to offer body-mind and spirit therapies in all its treatment modalities. Similarly to Somatology, Integrative medicine focuses on the person’s holistic needs and seeks to address the “full range of physical, emotional, mental, social, spiritual and environmental influences that affect a person's health” (Horrigan *et al.* 2012: 85). These alternative treatment approaches include a holistic approach

that encompasses the entire mind, body and soul (Desy 2014). As with Integrative Medicine, Somatology also strives to create balance within an individual by nurturing the client in a way that encompasses spiritual, psychological, emotional, and physical therapies. Developed through rigorous research and education by specialists at the Duke University of Medicine, the Wheel of Health (Figure 1) is a guide to integrative medicine and health planning that represents a natural approach to this process. Duke's Integrative Medicine Model helps patients to maximise their health and well-being by including complementary therapies which contribute significantly to health, healing and disease treatment and prevention. As Somatology focuses on holistic health and well-being, this model will be adopted as the conceptual framework that in guiding this study. The model reflects elements which can serve as a guiding framework to strengthen education. Many of the mind-body-spirit techniques presented within the model can be adopted during patient treatment in a Somatology practice context. The model also provides opportunities to consider other approaches that can be amicably integrated when offering beauty treatments to clients.

Figure 1 on the following page illustrates the significant areas of health and wellness and highlights the interrelation of body, mind, spirit, and community to attain optimum health and wellness.



## WHEEL OF HEALTH



**FIGURE 1: THE DUKE INTEGRATIVE MEDICINES' WHEEL OF HEALTH**

[Source: The Duke Integrative Medicines Wheel of Health 2010]

The Wheel of Health is built from three concentric circles that are coloured in yellow, green, and blue). These represent the primary elements of optimal health and distinguish the different areas of focus. When these areas are balanced, it brings the client into integrated wholeness. Any client should therefore be given the opportunity to have this experience of integrated wholeness in a Somatology practice context, and education should strive in preparing students to create this balance.

- **You (Yellow):** 'You' is the central focus and sits at the core of this wheel of health. Mindfulness, which is depicted at the centre of the model, involves the practice of staying watchful to one's physical, mental, social, and spiritual well-being to ensure

well-being. This consciousness enables individuals to recognise symptoms as they emerge, which is when they are most readily treatable. This is the critical core of well-being, on which the other elements are based.

- **Self-care (Green):** Self-care resonates deeply in all aspects of a person's health and well-being. Clients are encouraged to explore the relationship of the ways they can care for themselves and to develop practical strategies to improve or maintain their current state of health. The seven important areas for self-care are:

- ✓ **Nutrition:** Alteration in diets that can enhance the body's natural healing potential;
- ✓ **Movement and exercise:** Physical activity must be balanced with rest, sleep, and relaxation;
- ✓ **Mind-body connection:** Taking advantage of multifaceted connections between mind and physiologic functions in the body, by interrelating mind-body skills.
- ✓ **Personal growth and spirituality:** Developing a deep understanding through spiritual connections offers positive growth, health and well-being;
- ✓ **Personal and professional development:** Look deeper at work-life balance, financial goals, and personal growth to support optimal well-being.
- ✓ **Physical environment:** Science suggests that the physical environment that we are in can play an important part in our well-being. We should aim to create nurturing spaces that facilitate this relationship;
- ✓ **Relationships and communication:** It is important to identify ways in which we need support by building relationships with community, family, friends and co-workers, and to ensure effective communication.

Recognising the interconnectedness of these different dimensions will allow both the Somatology practitioner and client to build a more holistic and healthier approach to life.

- **Professional care (Blue):** Identifying symptoms early is vital to diagnosing health problems when they are most easy to rectify. Awareness of the need for professional care is an integral component of the integrative approach to medicine.

Professional care can be rendered by physicians, nurses, nutritionists, and other conventional health care workers, as well as integrative health coaches, acupuncturists, massage therapists, psychologists, mind-body therapists, and a host of other complementary health care providers. The Somatologist is one such member of this team who can help in identifying health problems during treatments.

(Adapted from: Treating health conditions using Dukes Model 2014; The Duke Integrative Medicines Wheel of Health 2010)

### **1.7.1 THE ADAPTABILITY OF THE WHEEL OF HEALTH TO SOMATOLOGY**

The Duke Integrative Medicines Wheel of Health offers a valuable framework to guide the application of Somatology interventions in an integrated way through practice, as follows:

- **Planning for health**

A treatment plan, if put together well, provides a useful map with clear indicators to help clients and professionals accomplish positive changes (Leung *et al.* 2009). Working hand-in-hand with clients, Somatology professionals can take the time to create a customised health plan for the client. Leung *et al.* (2009) stated that the client can be empowered to develop a sense of mastery of their problems through a unique plan, depending on their needs.

- **A focus on healing**

The Duke Integrative Model emphasises a focus on healing which Somatologists also endeavour to achieve. Even with facials, clients are offered a massage to help them relax. Soft soothing music generally accompanies all treatments, especially those such as reflexology and aromatherapy which have a definite goal to achieve healing in relation to a myriad of health problems.

- **Attending to all aspects of health**

Somatologists can help incorporate effective strategies to achieve overall health by administering nutritional advice, prescribing exercise, and implementing body therapy, facial therapy and aesthetic care.

- **Supporting lifestyle changes**

Somatologists are also a vital part of the medical health care team comprised of other health professionals such as medical aestheticians, chiropractors and podiatrists, medical sports physician etc. Treatment provides valuable opportunities for the Somatologist to suggest lifestyle changes, e.g. slimming sessions can include information on diet and exercise, whilst a facial can enable the Somatologist to discuss how rest and leisure will not only alleviate beauty problems but other problems as well.

The aforementioned reflects that The Duke Integrative Model is a valuable framework to guide both education and practice and can be effectively utilised by academics to explore how they can strengthen education in a way that a holistic approach to treatment is undertaken.

(Adapted from: Using elements of You, Self-care and Professional Care 2011.)

## **1.8 STRUCTURE OF THE DISSERTATION**

The chapters will be organised as follows:

### **Chapter One: Introduction**

This chapter has introduced the research study, its objectives and its value. Somatology in relation to practice and education is discussed. The Dukes Integrative Model is presented as the theoretical framework for this study that can serve as the guide within which education and practice can be enhanced.

## **Chapter Two: Literature review**

In this chapter the literature, and particularly the varied facets of the Somatology profession, are discussed. The theoretical and practical components of Somatology education are highlighted viz. aesthetics, massage therapy and facial therapy.

## **Chapter Three: Research Methodology**

In this chapter the research methodology utilised to guide the study is presented. Both quantitative and qualitative approaches are highlighted and the various samples viz. Somatology students, Somatology academics from the various UoT's and Somatology advisory members (DUT), are presented. The tools used to collect data are also discussed and attention is given to the procedure for analysis. The limitations and the ethical considerations involved in undertaking the study are also described.

## **Chapter Four: Results and Discussion**

In Chapter 4 the data obtained from the survey, in-depth interviews, focus group discussion and from Programme analysis is presented. Relevant literature is integrated into this discussion.

## **Chapter Five: Findings, Recommendations and Conclusions**

This chapter presents the summary of findings, recommendations and conclusions reached in relation to the primary aim and objectives of the research study.

## **Chapter Six: Recommended guidelines**

Broad guidelines to strengthen Somatology education at UoT's in accordance to industry needs are presented herein.

## **References**

The study also contains a comprehensive reference list of the literature reviewed, books, journals, websites and dissertations utilised during the research process.

## **Annexures**

Permission letters, information letters, the letter granting ethical clearance, questionnaires to Somatology students, and interview schedules that were used are presented here.

# CHAPTER TWO

## LITERATURE REVIEW

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***“The idea that beauty is unimportant or a cultural construct is the real beauty myth... We have to understand beauty, or we will always be enslaved by it.” - Nancy Etcoff***

### 2.1 INTRODUCTION

A literature review is an evaluative report of information, found through a process of reading, analysing, evaluating and summarising scholarly materials in relation to a field of study (Nordquist 2013). It is comprehensive, critical and contextualised (Hofstee 2006). Using this as a guideline, this chapter provides an in-depth review of literature underpinning the scope and practice of the Somatology field, all of which holistically form the components for Somatology education.

A paucity of literature was established following a keyword search using the term ‘Somatology’. Since the term Somatology has evolved from beauty origins (Vosloo 2009; Reid 2006), allied literature was also sourced by using the term ‘beauty’ as it falls under then lens of the Somatology scope of practice.

The literature review has been systematically structured to cover fundamental aspects which are central to the profession and curriculum. The word ‘curriculum’ can be defined as “the central activity or the core activity that is carried out on a daily basis with the educator/facilitator and the student/learner meaning the teaching, learning and assessment that is operational within a course framework” (Laher 2009: 69). Laher (2009) further stated that a curriculum is multi-faceted and encompasses many forces that act and shape professional development and curriculum together, from within and without, which is salient to the Somatology profession.

Traditionally, educational researchers were more concerned with improving education rather than understanding it (Johnson 2007: 127). Thus it was imperative

to explore the diversity of the Somatology background in order to appreciate and understand the current trends that the field has to offer. It was also important to know and comprehend how it has progressed from the past to the present. This forms the opening content to the literature review, which looks at the history of beauty therapy.

## **2.2 HISTORY OF BEAUTY**

Beauty and the urge to attain it date back to the ages of Adam and Eve (Saha 2008). Ancient ruins and archaeological excavations bear testament to the fact that in pre-historic times men and women were interested in improving their health and well-being through the resourceful use of materials surrounding them (Gerson 2001). Natural medicines were the first discoveries in ancient civilisations which initiated the process of beauty. Sunnydale (2010) suggested that these ancient civilians might have been experimenting with herbal creams, powders and oils to help an injury heal. They then discovered that it left their skin feeling soft and supple and provided protection from the weather. It may be from this point that health, beauty and wellbeing began to develop hand-in-hand (Sunnydale 2010). The exploration of these ancient methods revealed the wisdom and scientific validity of a body/mind/spirit approach to well-being for generations to come (Fritz 2008).

## **2.3 THE WORLD OF BEAUTY TODAY**

The public's interest in beauty therapy has been coaxed along by several scientific, cultural, and economic developments throughout history (Angelo 2008). In today's modern living, it imposes stressors and strains that are physical, mental, emotional and spiritual in nature (Parragon 2002). Health and beauty treatments have shown to be an antidote to these lifestyle elements; many of these treatments are found amongst new-age service providers such as spas, salons, beauty parlours, fitness centres and cosmetic surgeries (Saha 2008). Therefore, the Somatology field is a burgeoning and developing profession (Reid 2006) and is a part of a vast multi-national, multi-million pound beauty industry (Black 2002) with approximately 4.5 million regular users being reported for the year 2000 in the United Kingdom alone (Beauty Index 2001).



Contemporary beauty spas have highly skilled therapists who can provide an array of health and wellness treatments such as massage, aromatherapy, reflexology, aesthetic enhancements, hand and foot treatments, physical education, nutritional management, facial therapy and minor surgical removal procedures (Reid 2006). Therefore, Somatology can be seen to be a multi-faceted profession which encompasses all the aforementioned therapies and which holistically treats a variety of skin and body problems (Venter 2012).

The advent of permanent hair removal, the development of nail enhancements, and the transformation of skills and tools (Milady 2001), have expanded the scope of the Somatologist. With these advances, stakeholders in the field are required to know even more and make continuous educational improvements, so as to ensure that the services provided are of a high quality. In the 21<sup>st</sup> century we are learning to evaluate new products and technologies more realistically where we can pick and mix from a “treasure-trove of options: modern, traditional and worldwide” (Sunnydale 2010: 6). Saha (2008) added that beauty therapists today have the potential for colossal growth and success in the industry more than at any other time in history, and that the industry has been elevated to an entirely new level with a shift towards holistic beauty and wellness approaches.

In order to contextualise the above the following section focuses on professionalism, which forms an integral part in becoming a Somatologist.

## **2.4 PROFESSIONALISM IN SOMATOLOGY**

One of the fundamental elements of being a therapist is professionalism. Therapists should always present themselves in a professional and courteous manner, whilst projecting a warm image to clients (Cressy 2003). These personal attributes lend credibility and success to a therapist (Nordmann 2001). When cultivating a good professional image, Somatologists are also developing those innermost traits that will be valuable to their clients and others (Gerson 2001). These good self-management regimes have several benefits in a clinic setting and practice. Richter

(2010) described how Somatologists in her study indicated that self-management had helped service delivery to progress and escalated the retention of clients. Self-management included maintaining hygiene to forming good relationships with clients. Attributes such as personal grooming, coupled with good work ethics, and practicing sound hygiene, sanitation and safety principles underpin professionalism and will be discussed in the following sub-sections.

#### **2.4.1 PERSONAL GROOMING**

The professional Somatologist should be a living example of good health and should advise clients on how to achieve and maintain good health through hygienic living. It is thus important for all therapists to follow a set of guidelines that will help maintain a healthy body and mind (Milady 2001). Good health, personal hygiene and impeccable physical grooming are essential for Somatologists to practice successfully (Rosser 2001). Gerson (2001) said without these basic assets, one can neither work efficiently nor enjoy the realisations of one's full potential as a Somatologist.

#### **2.4.2 PROFESSIONAL CODE OF ETHICS**

Many salons and spas are guided by a code of ethics, which act as a set of guidelines that enforce responsibilities on therapists, to ensure that members of the public are sheltered from improper practice. This code covers the following aspects: to establish appropriate conduct and acceptable practices and maintain professional standards of behaviour towards other members of the organisation, members of the public and clients, other professional therapists, members of other professional organisations and colleagues within the industry (Cressy 2003).

#### **2.4.3 HYGIENE, SANITATION AND SAFETY IN THE WORKPLACE**

Hygiene is the branch of applied science that deals with healthy living and includes both personal and public hygiene (Gerson 2001). The establishment of a hygienic, healthy and safe environment is of prime importance in setting up a salon (Rosser

2001). There are hazards in all working environments and a spa has its own particular hazards relating to the environment and the type of treatments being offered (Cressy 2012; Barn and Chen 2012). The South African Occupational Health and Safety Act No. 85 of 1993 stated that it was essential “to provide for the health and safety of persons at work and for the health and safety of persons in the connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activity of persons at work; to establish an advisory council for occupational health and safety and to provide for matters therewith” (South African Parliament 1993: 1).

In keeping with the aforementioned Act, it is thus important to remember that in the beauty service industry one is legally obliged to provide a safe and hygienic environment (Nordmann 2001), as there may be potential health concerns. These concerns include the risk of infection and injury to the clientele depending on the nature of service, tools and equipment used, health status of clients and service providers, as well as the infection control procedures implemented (Barn and Chen 2011). Workplace regulations at any salon or spa should attain a safe healthy and secure working environment and should cover the following facets: maintenance of the workplace and equipment; ventilation; working room temperature; lighting; cleanliness and disposing of waste materials; safe salon layout; sanitary conveniences; drinking water; facilities for changing clothes; sterilising and disinfecting agents; and facilities for staff to rest and eat meals (Cressy 2003; Rosser 2001; Gerson 2001; Nordman 2001). To protect the health of the public, any therapist suffering from an infectious or contagious disease should not be allowed to work or attend their working environment where there is a danger of infecting other persons (Gerson 2001).

Several key gaps still exist in salon settings with respect to regulations, guidelines and practices. Barn and Chen (2011) suggested that the role of environmental health practitioners and policy makers is pivotal in better informing programmes, policies and practice to minimise and control public health risks in personal service establishments such as salons and spas.

The professional working environment has been covered in the preceding section. The next section highlights aspects which form the theoretical and practical component of the Somatology curriculum. The sub-sections in review have the following three foci: massage therapy, aesthetics and facial therapy.

## **2.5 MASSAGE THERAPY**

The art and science of massage has a time-honoured history in medicine (Willison 2005). It is a skill that has been practiced throughout most cultures for thousands of years for one elementary reason: “touch is a powerful healer” (Roseberry 2009: 9). The term ‘massage’ stems from ancient origins which include the Arabic Word *mass* or *mass’h* ‘to press softly’; the Greek and Latin words *massa*, *massein* or *masso* ‘to touch, handle, squeeze or knead’ as well as the Sanskrit roots *makeh* ‘to press softly’ (Fritz 2008:3). Today, massage can be described as a scientific method of manipulating the body tissues by touch (Scott and Harrison 2006). Through a diversity of approaches and applications massage is increasing in popularity with clients as it has benefits such as relaxation, feelings of well-being, improved blood and lymphatic circulation, reduction in anxiety and pain, and the promotion of faster healing (Willison 2006; Smith, Sullivan and Baxter 2010).

Several research studies have documented the positive benefits of massage therapy. According to studies by the Touch Research Institute, based at the University of Miami, in Florida, touch can promote weight gain in pre-term infants, reduce stress hormones, combat depressive symptoms, alleviate pain, and boost the immune system (Roseberry 2009). Other studies have also revealed that massage therapy has become common practice amongst sportsmen and has been proven to enhance aerobic performance (Jooste and Khumalo 2012). When used in conjunction with regular exercise it can promote flexibility and recovery between workouts, improve the range of motion and circulation, reduce muscle tension and stress (Carpentier 2010).

Body massage is often viewed as a core treatment and forms a foundation for many other treatments, such as Swedish massage, aromatherapy, Indian head massage

and sports massage, as well as the ancient traditions of acupressure and reflexology (Scott and Harrison 2006). These complementary therapies are making a significant and cost effective contribution to the health of the community, especially in relation to chronic disease management and the prevention of disease (Van-Francis, and Levett-Jones 2011). Findings from 31,044 adults aged eighteen and older in the 2002 National Health Interview Survey revealed that 36% of adults in the U.S.A. had used Complementary and Alternative Medicine (CAM) in the previous year (Sharpe *et al.* 2007). Most massage techniques have a low risk of adverse effects. Contraindications to massage include avoiding frictions on burns or massaging a limb with deep vein thrombosis. Vickers and Zollman (1999) stated that due to the close physical contact that massage therapy brings, patients should ensure that practitioners are registered with an appropriate regulatory body to minimise the risk of unprofessional behaviour.

### **2.5.1 SWEDISH MASSAGE**

At the beginning of the 19<sup>th</sup> century, Sweden's Per Hendy Ling developed the Swedish massage (Simon 2014). This massage technique is a form of "complementary" medicine when used alongside mainstream/conventional health care, and can be considered as an "alternative" when used alone (Willison 2006: 256). Swedish massage has been referred to as "*muscle massage*" (Brummet 2012: 1) as it stimulates deep muscle tissue by a series of massage movements involving friction and joint rotations, kneading and tapping of the muscles and soft tissue using long strokes, in order to enhance circulation while promoting relaxation (Gilliam 2003). To master these massage techniques, knowledge of anatomy and physiology is essential together with considerable practice of the four basic types of massage movements viz. effleurage, petrissage, percussion and vibration (Milady 2001; Nordman 2001; Roseberry 2009).

- *Effleurage* is a sliding, soothing movement (Simon 2014) that is relaxing and can be performed on large areas such as the back, where the hands mould the contours of the body using long sweeping movements. It gradually increases pressure to cover the entire surface (Roseberry 2009). This

technique relaxes tight and constricted muscles fibres by increasing blood circulation (Nordmann 2001).

- *Petrissage* is a rhythmic kneading movement of rolling and compressing, pushing and pulling, and grasping and releasing muscles to stretch and relax them (Roseberry 2009). This movement can be executed independently by using the thumbs, fingers and palms. This technique proves to be invigorating whilst relieving tense and tight muscles after exercise (Simon 2014).
- *Percussion* encompasses various stimulating movements, which are quite noisy when executed (Simon 2014). A group of movements that fall within this massage technique can be identified as hacking, cupping, beating and pounding. One of the key benefits of employing this technique is for the mobilisation and stimulation of adipose tissue (Scott and Harrison 2006).
- *Vibrations* are performed by using one or both hands to produce tremor like movements which vibrate the tissues. When used over the colon it can aid in peristalsis and relieve flatulence (Scott and Harrison 2006).

Despite many holistic benefits, Swedish massage should be avoided in health conditions such as lymphangitis, recent bleeding, deep venous thrombosis, as well as over stents or other prosthetic devices where displacement can occur (Willison 2006). Consultation with a physician or doctor prior to using therapy is always recommended.

### **2.5.2 REFLEXOLOGY**

According to Todd (2010), therapeutic reflexology can be described as a form of therapy that involves the stimulation of specific reflexes of the hands, feet, body and through the application of pressure. The pressure is applied by incorporating specific techniques to the reflexes by using the thumbs and fingers. Through application of pressure on the reflexes, reflexology relieves tension, improves circulation and helps promote the “natural function of the related areas of the body”

(MacEachern 2008:1). Like many complementary health therapies, reflexology is rooted in ancient medicine dating back to about 5,000 years ago in Egypt, India and China (Sortal 2008). Modern reflexology is, however, known to be a 20th century phenomenon (Lakasing and Lawrence 2010). In the 1920's Dr. William Fitzgerald introduced this therapy to the West and referred to it as 'Zone therapy', as he noted that reflex areas on the feet and hands were linked to other areas and organs of the body within the same zone (Worfolk 2006: 6). In 1938, Eunice Ingham further developed this zone theory into what is now known as reflexology (Vogel 2007).

Foot reflexology is the most popular type of reflexology and is mapped to show the correlation with different parts of the body (Fritz 2008). It helps to balance the physical, mental and emotional aspects of the body by supporting it in its own healing process (Worfolk 2006:6). Reflexology provides aid in promoting waste removal, induces oxygenation in tissues, improves blood circulation, eases pain, and treats a wide range of chronic illnesses (Saha 2008). Reflexologists treat mostly chronic benign conditions, including asthma, arthritis, back and neck pain, chronic fatigue, digestive problems such as irritable bowel syndrome and constipation, insomnia, migraines and headaches, menopausal symptoms, sinusitis and stress related disorders (Ernst 2006; Saha 2008; MacEachern 2008).

Research studies in Denmark have revealed that at least 30% of the population has undergone reflexology treatments, where 3% reported benefits such as improvements in energy, moods and sleep (Devoy 2009). Worfolk (2006) noted that due to the ever-increasing levels of stress, it is important that we take responsibility for our health. Reflexology is a safe, natural therapy that can help individuals to cope on a physical, mental and emotional level and encourage healing and the maintenance health in all areas of our lives.

### **2.5.3 AROMATHERAPY**

The rapidly growing popularity of complementary therapies has also brought aromatherapy into the mainstream (Sunnydale 2010). The development of aromatherapy can be attributed to the French chemist and perfumier Rene

Gattefosse in the early 20th century. It has been alleged that he burned his hand while working in a perfume laboratory and immediately applied lavender oil, only to discover its incredible healing properties without evident scarring (Ernst 2006). Aromatherapy also dates back to the Egyptians, who used aromatic plants to create massage oils, medicines, embalming preparations, skin care products, fragrance and cosmetics (Low 2000). This led to the study of potential curative powers of plant oils (Ernst 2006). Aromatherapy has been defined as “the controlled and knowledgeable use of essential oils for therapeutic purposes” (Sunnydale 2010: 262). The resurgence of aromatherapy over the past ten years has made it one of the most popular alternative treatments in spas (Scott and Harrison 2006). Without accurate diagnosis, aromatherapy is very general and may possibly placate a symptom or seem merely pleasantly relaxing (Chopra 2001).

Today more than 400 essential plant oils are sourced globally and used for therapeutic olfactory properties and healing powers (Simon 2014). Aromatherapy uses concentrated essential oils that have been extracted from herbs, flowers and other plant parts to treat various diseases (Cooke and Ernst 2000). Each essential oil possesses its own healing property that affects the mind, body and spirit (Simon 2014). Each fragrance has the unique ability to uplift spirits and enhance moods, and has been linked to other psychological benefits such as reducing stress and sleep enhancement (Low 2000). Due to fast paced lifestyles and increased work demands, most patients suffer from some kind of stress-related disorder which is largely becoming endemic in our society (Philips 2009).

According to Battaglia (1997) aromatherapy encourages the healing process largely through relaxation and the relief of stress. A research study conducted by Takeda *et al.* (2008) measured the physiological and psychological effects of stress by using aromatherapy massage. The findings revealed a significant decrease in cortisol levels, a chemical that is increased in the body during stressful situations (Labrique-Walusis, Keister and Russell 2010). Cooke and Ernst (2008) have conducted similar studies around anxiety and aromatherapy and have found a transient effect in the reduction of anxiety.



Essential oils are often diluted with carrier oils which are carried into the bloodstream via inhalation of scent through the limbic system, or through lipid absorption when applied to the skin (Fritz 2008). It can also be incorporated and utilised in baths and compressors (Simon 2014; Cressy 2003).

The following essential oils, their properties as well as their indications, are listed as the top ten oils used in aromatherapy for relaxation:

- Bergamot: soothing and uplifting, good for tension and depression;
- Chamomile: calming, suitable for insomnia;
- Jasmine: a stimulant or a sedative, excellent antidepressant and aphrodisiac;
- Juniper: uplifting, good for fatigue and boosting self-esteem;
- Lavender: useful and popular oil, used for relaxing, antidepressant and painkiller;
- Lemon: balancing, aids in controlling emotions;
- Rosemary: refreshing and stimulating;
- Sandalwood: used as an antidepressant and aphrodisiac;
- Vetiver: balances the nervous system, good for insomnia;
- Ylang ylang: calming, used as an aphrodisiac and good for panic attacks.

(Parragon 2002: 247).

When essential oils are used professionally and safely, they produce no side-effects but rather stimulate the body's own self-healing powers that work holistically on the mind and body to initiate feelings of wellbeing (Cressy 2003). Some allergic, phototoxic reactions, nausea and headache reactions have, however, been noted but these are rare and usually transient adverse effects (Ernst 2006).

Aromatherapy can be of great benefit as an adjunct to conventional medicine or used simply as an alternative (Roseberry 2009). To take aromatherapy to the fore, it is pivotal that aromatherapists, medical professionals, complementary medicine personnel together with the fragrance and essential oil industry, collaborate to recognise aromatherapy as a professional therapy in "playing a vital role in the healing of the planet and its inhabitants" (Battaglia 1997: 11).

## **2.6 AESTHETICS**

Aesthetics is a subject which falls within the Somatology curriculum. It is comprised of hair removal techniques, make-up, and hand and foot treatments. These are all traditional beauty therapy treatments that are offered in most salons, health hydro's and spas (Mbuttho 2013).

### **2.6.1 HAIR REMOVAL TECHNIQUES**

The earliest references to hair removal techniques emanates from the ancient civilisation of Mesopotamia, Egypt and Greece (Kennedy 2011). The prime purpose was to rid the body of unwanted body hair. The latter can be a primary source of discomfort and humiliation for many people and can cause low self-esteem and issues in social settings (Saha 2008). Facial hair in women is also often perceived as unfeminine and unhealthy, and is associated with ageing (Styczynski, Oblong and Ahluwalia 2009). Body hair removal has been the domain of women; in men it has usually been confined to professional athletes such as swimmers or cyclists (Martins, Tiggemann and Churchett 2008). In current trends hair removal is regularly sought by both sexes and irrespective of the reasons, the management and removal of unwanted hair presents itself as an unmet global consumer need (Styczynski, Oblong and Ahluwalia 2009).

Hair removal today, for both men and women, is more popular than in the past (Foulston, Major and Wynne 2007). A research study in the United Kingdom revealed that 99% of the participants reported removing some hair from common areas such as the under-arms, legs, pubic area, and eyebrows (Toerien, Wilkinson and Choi 2005). There are two types of hair removal methods, namely depilation and epilation. Depilation is the removal of hair at the skin's surface, whereas epilation is the removal of hair below the surface of the skin (Kennedy 2011, 2001; Ladizinski, Ganta and Mathur 2012). Hair removal methods may only have a temporary effect and can be both painful and messy with a risk of irritation from the harsh chemicals employed. Whichever technique is elected, it is paramount that the therapist is aware of all possible contradictions, after care advice, sound client safety practice, and high disinfection control (Culp *et al.* 2010).

## **2.6.1.1      DEPILATION**

### **2.6.1.1.1      SHAVING**

Shaving is a regular activity for most individuals and dates back from the Bronze ages where straight razors were first used (Frey 1996). This method can be achieved by using an electric shaver or a wet razor and is used in conjunction with a soap or cream (Cressy 2003), with the hair being tugged and cut off at the skin's surface (Kennedy 2011). This technique provides an inexpensive, painless form of hair removal (Laura 1999).

### **2.6.1.1.2      DEPILATORIES**

Depilatories are composed of chemical constituents which work together to disintegrate the hair shaft at the hairline by weakening it and allowing it to be rubbed or rinsed off with lukewarm water (Kennedy 2011, 2001; Cressy 2003). It is available in forms of cream, paste or powder. Ladizinski, Ganta and Mathur (2012) explained that depilatories are keratolytic in nature; this works by dissolving the keratin component of hair. This method can also be used as an alternative treatment in clients with varicose veins, as waxing is contraindicated over the affected area (Cressy 2003). The biggest advantage of chemical depilatories is that they are somewhat painless, whilst the disadvantages are that these products can be exceptionally irritating on the skin and can have a strong unpleasant odour (Blumenthal 1991). Milady (2001) advised that a skin test should be executed to determine the client's sensitivity to the product.

### **2.6.1.1.3      THREADING**

Threading, also known as 'banding', evolved from Eastern origins (Culp *et al.* 2010: 228), and has recently gained popularity in the West (Ladizinski, Ganta and Mathur 2012). This technique is said to be more effective and longer-lasting than tweezing or waxing (Mcgraw 2007). Using long pieces of cotton thread (Clodfelter 2007) hair is tugged out by the ancient art of hair removal by a quick manipulation of the hands, fingers, mouth and thread (Kennedy 2011). Threading experts also say the treatment

is more hygienic than waxing and is suitable for clients who have sensitive skin due to prescription medication (Culp *et al.* 2010), which can trigger other reactions that leave the treated area to be red, puffy or flaky. Daniels (2003) further stated that in recent years some upscale beauty salons have begun to offer threading to their customers.

## **2.6.1.2 EPILATION**

### **2.6.1.2.1 WAXING**

Often regarded as the bread-and-butter of most beauty salons, waxing remains one of the most popular methods to temporarily eradicate unwanted hair. Common areas include the chin, eye-brows, upper-lip, under-arms, legs and bikini areas. Waxing is available in various forms, i.e. hot wax or cold wax, yet they all share several similarities (Kennedy 2011).

Hot wax or hard wax is long established and first became available in 1975 (Nordmann 2001). It was the original depilatory wax that vanished into relative obscurity when the quick and efficient soft wax came to the fore (Culp *et al.* 2010). The basic ingredients in this type of wax are beeswax and resins, and include soothing agents such as azulene (Cressy 2003). This form of wax is applied either heated or cold as recommended by the manufacturer (Milady 2001). It should be applied and spread quickly whilst in its pliable consistency to prevent it from solidifying and becoming brittle (Culp *et al.* 2010). Due to stringent hygiene regulations the hot wax should never be strained and re-used (Cressy 2003).

Cold wax or strip wax has superseded the use of traditional hot wax and is used more extensively today (Cressy 2003). This technique has all the advantages of hot wax but requires no heating and is particularly favourable for those clients who cannot tolerate the heated wax (Milady 2001). Cold wax is used straight from its packaging and may be warmed. According to Nordmann (2001) it is applied and spread with a clean spatula and removed using cellophane, muslin or a paper strip which is then discarded. Once the treatment is complete a moisturising or soothing agent should be applied and home care advice should be administered.

#### **2.6.1.2.2 SUGARING**

Used for centuries in the Middle East, North Africa, and the Mediterranean, sugaring is a method of hair removal that originated in ancient times (Culp *et al.* 2010). Dissatisfaction with modern hair removal methods in the 1980's brought this ancient technique to the fore (Napier 2007). Sugaring is made from totally natural ingredients (Kennedy 2011; Napier 2007) and is constituted of sugar, lemon and water (Nordmann 2001). Due to this natural composition it is one of the few beauty products in the world that is actually edible (Socha 1992). Sugaring works by applying the paste by hand around the hair shaft which makes it flexible, while seeping below the base of the follicle and lubricating the hair to make the extraction more complete and gentle (Kennedy 2011). This technique causes the re-growth of hair to be lighter, softer and less dense (Culp *et al.* 2010).

#### **2.6.1.2.3 ELECTROLYSIS**

Electrolysis is the only known method for hair removal that is therapeutically acknowledged for permanently removing unwanted body hair (Saha 2008). This technique was developed by an ophthalmologist, Charles Michel, in 1875, whilst trying to solve the problem of ingrown eyelashes (Milady 2001). In this procedure, a very small amount of electricity (galvanised current) is conducted through a needle and applied to the bottom of the hair follicle (Saha 2008; Kennedy 2011). According to Habib (1994) this current alters the molecular structure of the cells which is comprised mostly of salt and water, to produce new substances such as sodium hydroxide (more commonly known as lye), hydrogen and chlorine gases which are highly caustic and destroy the growth tissue. Electrolysis extends itself beyond removing hair, as it can also help eliminate skin imperfections such as burst or enlarged capillaries, spider veins and clogged pores (Habib 1994). Although electrolysis permanently reduces hair growth, it is known to be slow, tedious, and painful, and takes years to produce results (Dover 2000).

#### **2.6.1.2.4 LASER**

Goldberg (2007) wrote that a variety of laser and light-based devices have now been publicised to effectively remove unwanted hair. He further stated that an effective treatment is based on an understanding of laser physics and appropriate wavelengths, pulse durations, and cooling of the skin. A common type of laser is the Intense Pulsed Light (IPL), which incorporates the clinical use of polychromatic light which is achieved through filters that are affected by wavelength (Culp *et al.* 2010). The light waves are absorbed by skin structures such as the hair, pigments and vessels, through a process of photo-thermolysis (Kennedy 2011). Lasers are more expensive than electrolysis units, but the speed and efficacy of a laser appear to outweigh the cost disparity, which includes a quicker treatment and reduced pain (Dover 2000).

#### **2.6.1.2.5 TWEEZING**

The removal of hair using tweezers is known to be an ancient rite (Kennedy 2011); this method is commonly used for shaping the eyebrows (Cressy 2003) and removing undesirable hairs from around the mouth and the chin (Milady 2001). This method involves grasping a single strand of hair and tugging it, thereby allowing the hair to be completely removed from the follicle. Although the process is known to be painful and daunting, it is advised that by covering the area with a warm damp cloth prior to tweezing will result in the hair being removed more easily and effortlessly (Patteson 2000).

### **2.6.2 MANICURES AND PEDICURES**

Our hands and feet often voice a lot about our personality traits and who we are, thus “nail technicians expend their time beautifying and groom these tell-tale parts” (Saha 2008:4). The primary purpose for manicures and pedicures is to keep the nails of the hands and feet in good condition (Foulston, Major and Wynne 2007). This stems from an ancient belief that long, polished and coloured finger nails were a mark of distinction between aristocrats and common labourers (Culp *et al.* 2010).

The analysis of the hands and feet also forms a central part in determining the existing condition of the skin and nails in order to identify contra-indications, determining a treatment plan, and to prevent cross contamination of infections that may be present (Ferreira 2010). A successful treatment also relies on extensive knowledge of anatomy and physiology, together with product familiarity.

The word manicure is derived from the Latin words *manus*, meaning 'hand', and *cura* meaning 'care' (Nordman 2001: 224). The hands are very important parts of our body and should be kept in good condition as they suffer greatly from external influences, for example exposure to detergents, sun damage, and accidental damage (Newman 2007). Good looking nails can make a person feel better and improve confidence, and is evident to their owner every moment of the day.

The word pedicure also hails from the Latin words *pedis*, meaning 'foot' and *cura* meaning 'care' (Nordman 2001: 224). The feet are not on show as clearly as the hands, but prominently benefit from a pedicure treatment as it takes a lot of weight bearing stress and strain and feet become very hot and swollen due to enclosed shoes (Cressy 2003). The feet always need to be maintained for comfort and protection as they are easily exposed to common foot conditions such as hard skin, ingrown toenails, and excessive sweating as well as an array of fungal infections eg. athlete's foot (Newman 2007). Since there are no standard operating procedures with regard to the cleaning and disinfection of manicure and pedicure implements (Ferreira 2010), hygiene and sanitation procedures are paramount to inhibit the spread of infections.

Professional grooming of the hands and feet thus "serves as an aesthetically pleasing function as the appearance of peeling, broken and splitting nails and rough, cracked skin on the hands and feet is improved" (Ferreira 2010: 57). There are various manicuring and pedicuring techniques employed during a treatment which includes filing, buffing, cuticle removal, exfoliating massage, moisturising and painting (Newman 2007), all with the prime purpose of aesthetically enhancing the hands and feet. Additional treatments are also offered to enhance the effects of a

manicure and pedicure, such as a paraffin wax, oil treatment, salt rub, and a thermal mitten treatment. Mutual benefits include nourishment, hydration, improvement of skin texture and colour, exfoliation, increase in joint mobility and improved sebaceous gland activity (Newman 2007; Nordmann 2001; Cressy 2003; Foulston Major and Wynne 2007).

Instead of being merely secondary services at a hair salon, nail technicians have taken to the forefront (Saha 2008), with Americans spending an estimated \$6 billion per year in nail salons for manicures and pedicures (Snieszek *et al.* 2003). This is a rapidly growing segment of the cosmetic industry that has witnessed unprecedented growth.

### **2.6.3 MAKE-UP**

Paintings, sculptures, photographs and books allow us to journey back into historic times to find mesmerising make-up practices from the past to the present (Gerson 2001). In today's culture, external beauty is often equated with internal good where everyone wants to portray a pretty picture of themselves (Cohen 2009), by building their clients' sense of worth and to provide the desired look for special occasions (Saha 2008). Many cosmetic products and principles used in the past are still practiced today, although scientific advances have greatly increased the possibilities and safety factors (Foulston, Major and Wynne 2007). The call for natural and healthy skin products has elicited a boom in the mineral make-up industry. Culp *et al.* (2010) stated that while classical make-up techniques are still in use, clients who are challenged with busy schedules opt for permanent cosmetics.

The main objective of a make-up application is to accentuate the client's most attractive facial features and to minimise less attractive features by using the best cosmetic formulations and techniques (Culp *et al.* 2010). When applying make-up the therapist takes into consideration the structure of the client's face, colour and size of the eyes, skin, hair, age and the look the client wishes to attain (Sunnydale 2010; Culp *et al.* 2010). The knowledge of the type of light setting (eg. day or night) that the proposed make-up will be seen in is significant, as the appearance of



colours may change according to the type of light and produce an incompatible look (Nordmann 2001).

A typical make-up sequence is as follows:

- Concealing blemishes (*provides extra coverage*).
- Applying foundation (*produces and even skin tone*).
- Contouring the face (*changes the appearance of facial features*).
- Applying powder (*sets the foundation*).
- Applying blusher (*accentuates cheek bones*).
- Applying eye shadow (*adds colour and definition to cheekbone*).
- Shaping and making-up the eyebrows (*balance facial features and enhances eyes*).
- Applying mascara (*enhances eyelashes by making them look longer and darker*).
- Make-up for the lips (*adds colour and draws attention*) (Nordmann 2001; Cressy 2003; Sunnydale 2010).

False eyelashes have also been known to enhance the finished effect of a make-up application; this is a procedure that goes in-and-out of fashion (Cressy 2003). Eyelash beauty treatments bring psychological benefits in terms of femininity, normalcy and self-management (Chan 2011). Artificial eyelashes make the eyes appear larger and more expressive, but will appear hard-hitting and theatrical unless applied skilfully (Gerson 2001). When applying make-up it is advisable to apply them sparingly, building up the layers gradually rather than using one heavy application (Cressy 2003). Following a make-up application it is recommended that a record is kept on a personal chart of the products and colours used (Nordmann 2001). This will also serve as an advantage if the client wishes to purchase any product used.

## **2.7 FACIAL THERAPY**

Facial therapy has become a necessity amongst modern men and women as part of a proactive approach to skin care (Strausfogel 2010). Skin treatments are among the most common treatments performed by a therapist (Foulston, Major and Wynne

2007) mostly to uphold youthful skin. Young skin is characterised by homogeneous colour, smooth texture, tautness, dewiness, a lack of irregular pigmented lesions and the absence of wrinkles (Sachs and Voorhees 2010). Facial regimes include a repertoire of cleansing, steaming, exfoliating, extraction, moisturising, facial masks peels, and massage, all to promote clear, soft and supple skin (Sunnydale 2010).

Facial treatments are beneficial for the following reasons:

- Cleansing the skin;
- Increasing circulation;
- Activating glandular activity;
- Relaxing the nerves;
- Maintaining muscle tone;
- Strengthening weak muscle tone;
- Correcting certain skin disorders;
- Helping prevent the formation of wrinkles and ageing lines;
- Softening and improving skin texture and complexion (Milady 2001).

The global market today possesses an array of skin care products and treatments from multinational companies, using women of colour in their advertising campaigns, as well as in their employment of counter sales consultants (Teixiera 2006). Common skin care products commonly found in the South African market include Dermalogica, Environ, Decleor and Theravine to name a few, all of which cater for each individual skin type.

### **2.7.1 SKIN TYPES**

The basic structure of the skin is similar from person to person, however the physiological functions differ which gives rise to skin-types (Nordmann 2001). Products are prescribed to suit each skin type, colour and condition. The four main common skins types can be described as follows:

#### **2.7.1.1      NORMAL**

This purportedly does not exist and is often referred to as the “*perfect skin*” (Hiscock, Stoddart and Connor 2007: 204) which is balanced. Sunnydale (2010) added that it possesses a healthy glow, with a fine texture and no open pores. To capitalise on normal skin, individuals do not require much more than a gentle cleanser, an occasional exfoliation, a good moisturiser, and a regular sun protective factor (SPF) (Bruckner 2010).

#### **2.7.1.2      OILY**

In this skin type the sebaceous glands become very active and are stimulated by a hormone called androgen (Nordmann 2001). Oily skin responds well to most gel cleansers, gentle exfoliants, and toners that incorporate salicylic or glycolic acid. These can also be included in the facial regime to help keep pores clear and minimise breakouts (Bruckner 2010). One of the positive outlooks of this skin type is that the oiliness will make the skin stay youthful for longer (Sunnydale 2010).

#### **2.7.1.3      DRY**

A dry skin is deficient in both oil and moisture (Hiscock, Stoddart and Connor 2007), leaving the skin feeling dry and itchy and looking dull and flaky. Marlowe (2009) said that to remedy dehydrated skin one should drink plenty of water and invest in a humidifier, which will reduce the evaporation of moisture from the skin. The best products for this skin type are creamy cleansers, a mild exfoliant (used every few days), and a specific creamy moisturiser (Bruckner 2010).

#### **2.7.1.4      COMBINATION**

Combination skin segments the face into dry and oily parts. The oily parts are known as the ‘T-zone’ and consist of the chin, nose and the forehead, with the rest of the face and neck being dry (Nordmann, 2001:98). This is a very common skin type and there are products created especially for combination skin types (Foulston, Major and Wynne 2007).

### **2.7.2 ELECTRICAL-THERAPY TREATMENTS**

Skincare technology has moved forward in leaps and bounds over the last few years (Marlowe 2009). As people become more concerned with the effect of pollution on their skin and wanting to achieve accelerated results, their interest in scientific skin care has been renewed (Gerson 2001). Due to these modern technological advancements, mechanical and electric treatments are now used to penetrate products further into the skin, thus producing optimum results (Hiscock, Stoddart and Connor 2007). Traditional and commonly used machinery familiar to Somatologists include high frequency, vacuum suction, micro currents and galvanism.

#### **2.7.2.1 HIGH FREQUENCY**

This is a rapid alternating current that produces heat in the tissues, which in turn produces physiological effects that are stimulating and soothing (Cressy 2003). There are two methods of high frequency:

Direct: the high frequency current passes directly into the client's skin through an electrode.

Indirect: the high frequency current discharges from the client to the therapist's hands at the point of contact during a gentle massage (Foulston, Major and Wynne 2007).

After the treatment it is essential that the electrodes are cleaned and sterilised. This is to ensure that any residue is removed, as this may act as a conductor to the high frequency current and shock the therapists hand (Cressy 2003).

#### **2.7.2.2 VACUUM SUCTION**

Vacuum suction is performed with the aid of a compressor; this works by using a pump action and creates a vacuum in the ventouse (cups) attached to the tubing (Foulston, Major and Wynne 2007). This method of lymph drainage facilitates the removal of waste products from the skin via the lymphatic system (Cressy 2003). Foulston, Major and Wynne (2007) stated that in the United States this method is also commonly referred to as non-invasive sub-dermal therapy (NSTI).

### **2.7.2.3 MICRO-CURRENTS**

Micro current technology is operationalised in the treatment of loss of muscle tone in the face due to ageing, genetics, sun and gravity (Culp *et al.* 2010). It mimics the body's own natural bio-electric impulses which are sent via the spinal column to muscles and soft tissues, and which promotes the metabolism of tissue and speeds up cellular activity (Hiscock, Stoddart and Connor 2007).

### **2.7.2.4 GALVANISM**

A galvanic current is a direct constant current, with a low voltage, which can be used in two ways:

Desincrustation: a negatively charged electrode with an active desincrustation gel product which causes an alkaline reaction and deep cleansing effect.

Iontophoresis: a positively charged active electrode with a positively charged gel or a negatively charged electrode with a negatively charged gel, which causes the ingredients to be absorbed into the skin (Foulston, Major and Wynne 2007:264).

Both methods have two fundamental principles for correct use, which involves the polarity of the product used on the skin and the polarity setting of the machine (Hiscock, Stoddart and Connor 2007).

### **2.7.3 SPECIALISED FACIAL TREATMENTS**

It is known that specialised cosmetic procedures are largely under the aegis of Dermatologists (Marlowe 2009). This practice can also be referred to as aesthetic medicine and is an emerging branch of medicine that relies on procedures and techniques to improve and enhance the appearance, texture, and contours of the skin, face, and body (Prendergast 2011). These specialised procedures include microdermabrasion, micro-needling, chemical peelings and injectables, to name a few. Whilst these practices fall under the scope of a Dermatologist or Cosmetic surgeon, Somatologists should be knowledgeable of the subject and recognise problems which he or she can handle, and those which a medical doctor should treat

(Gerson 2001). Thus, Somatologists can play a vital role in the pre-operative and post-operative stages of surgery by prescribing skin care regimes, conducting successive skin analysis and providing massage to increase blood flow to promote healing (Vosloo 2009).

#### **2.7.3.1 MICRODERMABRASION**

Microdermabrasion is a superficial peeling modality that has become quite popular with patients and the media (Lloyd 2001). The procedure involves using a high-speed sanding wheel or rotating brush that is used to scrape away all of the epidermis and most of the dermis (Marlowe 2009). In a pilot study, conducted by dermatologists, 24 acne patients who received eight microdermabrasion treatments at weekly intervals appeared to benefit with a positive effect with regard to the improvement of acne. Ninety-six percent of the patients were pleased with their peel results and would recommend the procedure to others (Lloyd 2001: 329).

#### **2.7.3.2 MICRO-NEEDLING**

Micro-needling is done with a roller that has numerous tiny needles that penetrate the skin by 3mm, which causes bruising and swelling (Takahashi 2011). This process initiates the build-up of percutaneous collagen which aids in repairing damaged skin.

#### **2.7.3.3 CHEMICAL PEELING**

Chemical peels are a more antagonistic form of exfoliation and are very effective at reversing sun damage and mild scarring, removing pre-cancerous growths, and evening out irregular pigmentation (Marlowe 2009). Chemical peels are generally considered to be safe and effective, and form an important part of a Dermatologist's arsenal. The use of chemical peels can have adverse effects, however, such as post-inflammatory hyper pigmentation that is more commonly seen in darker skin types (Handog, Datuin, and Singzon 2012).

#### **2.7.3.4 INJECTABLES**

It is evident that intrinsic ageing is the breakdown of collagen and elastin, which plumps up the skin (Marlowe 2009). Serums are injected into facial lines and wrinkles to produce a swelling effect, therefore masking the visible signs of ageing (Gerson 2001).

The skin has always been the organ of communication, and consequently cosmetics and skincare products have continually played an important role in society (Teixiera 2006). In order for the skin to function efficiently it must be cared for both internally and externally. Gerson (2001) indicated that a nutritionally balanced diet is central to the health and appearance of the skin, as nutrients are carried by the blood to the skin where they promote nourishment by growth and repair. The longing to maintain a youthful experience is evident in our society, and the demand for medicated and procedural treatments to achieve a youthful experience continues to escalate for generations to come (Sachs and Voorhees 2010).

## **2.8 CONCLUSION**

The objective of this chapter was to highlight the course content of the Somatology profession. Taking this into consideration, the above sub-sections provided information which detailed various domains in Somatology education that related to theory and practice. The literature reviewed was thus aligned with the main objectives of the study.

The literature reviewed clearly reflects that the use of cosmetic products and beauty therapy has rooted itself in ancient cultures and history and are still practiced today. Due to unprecedented changes and technological advancements, the beauty industry is proving to be a growing profession which will allow for Somatologists to be pioneers in the field. Professionalism, competence, and ethical standards establish a sound foundation for practice and must underpin education. To provide the most effective treatments for clients, graduates of the Somatology field need to fully comprehend cutting-edge and contemporary technological advancements in the

beauty field, so that they can put these into the professional practice with ease. With the current beauty and wellness related advancements Somatologists have the opportunity to be part of an integrated, multidisciplinary approach to health and wellness.

The following Chapter focuses on the methodology that was used in the study.



# CHAPTER THREE

## RESEARCH METHODOLOGY

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***“Health is not an objective condition which can be understood by the methods of natural science alone.***

***It is rather a condition related to the mental attitude by which the individual has to value what is essential for his life.” - Ivan Illich***

### 3.1 INTRODUCTION

Methodology has been described as the philosophy or the general principles which are used to guide the research process (Rajagopaul 2008). This research process should present itself in a form of structure or blueprint that will result in the formulation of the research questions and conclude with the research findings (Laher 2009). Kumar (2012) stated that the researcher should follow a process that is undertaken within a clear philosophical framework, using procedures, methods and techniques that are evaluated for their validity and reliability and are designed to be unbiased and objective.

This chapter reflects the blending of both quantitative and qualitative research methodologies as a triangulated methodological approach that was used in the study. The theoretical components of both paradigms are elucidated together with a discussion of the data collection process. Data collection tools used in respect of each of the three samples and the data analysis procedure is also discussed. The inclusion and exclusion criteria of the study, limitations and ethical considerations form the conclusion to the chapter.

### 3.2. THE RESEARCH PARADIGMS

According to Barker (2003: 312) a paradigm can be defined as “a model or pattern containing a set of legitimated assumptions and a design” for collecting and

interpreting data. It can be further described as an illustrative or conventional pattern, model or arrangement of physical and mental objectives (Molukanele 1998: 26) which unquestionably provides a shift for new discoveries and provides valid conclusions. The objectives of this study were two-fold. The first related to using survey questionnaires with Somatology students to ascertain as to whether Somatology education had prepared them for practice. This was to investigate their levels of satisfaction with current educational content and identify areas requiring further attention. The second objective focused on the views and opinions of current Somatology educators from all Universities of Technology (UoT), with regard to whether education is preparing students to meet industry demands. This same line of inquiry was undertaken with the DUT Somatology Advisory Board members using a focus group discussion. Laher (2009) stated that by combining the best of both quantitative and qualitative approaches the validity of the research findings is strengthened. Triangulation techniques are therefore utilised, especially when a holistic view of educational outcomes is sought (Cohen, Manion and Morrison 2007). The blending of both these paradigms were utilised in the study through this type of triangulation.

### **3.2.1 QUALITATIVE AND QUANTITATIVE RESEARCH APPROACHES**

There are currently two opposing approaches to research, which are commonly known as quantitative and qualitative techniques (Laher 2009). When explored independently, quantitative research involves the collection of data in a numerical form for quantitative analysis (Jupp 2006). It is structured in logical sequential phases, according to a substantially deductive approach (theory precedes observation) that strives to justify and support previously formulated theories with empirical data (Cohen, Manion and Morrison 2007). Jupp (2006: 250) added that quantitative research produces “*facts*” about the world and behaviour, and these are viewed as adding to the sum of human knowledge. Within this approach, systematic analysis of the literature takes on a crucial role, since it is this that provides the theoretical hypotheses on which fieldwork will be based (Corbetta 2003).

On the other hand, qualitative research consists of many different approaches which often overlap and allow for subtle distinctions (Laher 2009). This approach allows for

an open, interactive relationship between theory and research (Corbetta 2003). The researcher often deliberately avoids formulating theories before fieldwork begins, on the grounds that this might hinder his capacity to comprehend the point of view of the subject under study (Cohen, Manion and Morrison 2007).

A further understanding of these two continuums is best described when they are compared to each other. Table 2 below clearly illustrates these differences.

**TABLE 2: COMPARISON BETWEEN QUALITATIVE AND QUANTITATIVE APPROACHES**

<b>QUANTITATIVE APPROACH</b>	<b>QUALITATIVE APPROACH</b>
<i>Epistemological roots in positivism.</i>	<i>Epistemological roots in phenomenology.</i>
<i>Purpose is testing predictive and cause-and-effect hypotheses about social reality.</i>	<i>Purpose is constructing detailed descriptions of social reality.</i>
<i>Methods utilise deductive logic.</i>	<i>Methods utilise inductive logic.</i>
<i>Suitable for study phenomena which are conceptually and theoretically well-developed; seeks to control phenomena.</i>	<i>Suitable for a study of relatively unknown terrain; seeks to understand phenomena.</i>
<i>Concepts are converted into operational definitions; results appear in numeric form and are eventually reported in statistical language.</i>	<i>Participants' natural language is used in order to come to a genuine understanding of their world.</i>
<i>The research design is standardised according to a fixed procedure and can be replicated.</i>	<i>The research design is flexible and can be unique and evolves throughout the research process. There are no fixed steps that should be followed and design cannot be exactly replicated.</i>
<i>Data are obtained systematically and in a standardised manner.</i>	<i>Data sources are determined by information-richness of settings; types of observations are modified to enrich understanding.</i>
<i>The unit of analysis is variables which are atomistic (elements that form part of the whole).</i>	<i>The unit of analysis is holistic, concentrating on the relationships between elements, contexts, etc. The whole is always more than the sum.</i>

(Fouché and Delport 2005: 75)

The following section elaborates on the strengths of a triangulated methodology by incorporating the facets from Table 2 which is depicted above.

### **3.2.2 STRENGTHS OF TRIANGULATION**

Triangulation in social research involves the assimilation of different methods, methodological perspectives or theoretical viewpoints (Miller 2005). Triangulation involves the conscious combination of quantitative and qualitative merits that are operationalised in order to strengthen a study (Laher 2009). Cohen, Manion and Morrison (2007) stated that it attempts to map out and elucidate the richness and complexity of participants in a study. Furthermore, it incorporates multiple sources of data to enhance the credibility of a research study (Thurmond 2001). Corbetta (2003: 37) stated that by adopting triangular techniques it also allows “for the theory to be tested through its operationalisation and transformation into empirically observable variables”. Miller (2005) wrote that by adopting triangulation techniques it identifies advantages of the quantitative approach and correspond to the disadvantages of the qualitative approach, and *vice versa*. Thurmond (2001) concludes by stating that by adopting this unified technique it enables the researcher to exploit the strengths of each approach and reduces the weaknesses inherent in a single approach.

### **3.3 DATA COLLECTION PROCESS**

Because social needs, problems and causes keep emerging, new data needs to be collected to understand and address these emerging changes (Pawar 2007). Through the use of methodological triangulation, three sources of data and four sources of data collection tools were utilised. Table 3 on the following page details the data collection process which is discussed further in this chapter.

**TABLE 3: DATA COLLECTION PROCESS**

DATA SOURCES	DATA COLLECTION TOOL	NO.
<b>Phase 1: Quantitative</b> Sample 1: Students	Survey questionnaires (Appendix A, B, C).	125 (3 <sup>rd</sup> year students from all UoT's). [sample and population are the same]
<b>Phase 2 : Qualitative</b> Sample 2: Academics  Sample 3: Members of the Somatology advisory Board	In-depth interviews. (Interview Schedule: Appendix D).  Focus group discussion. (Interview Schedule: Appendix E).	20 (from all UoT's - population); Sample n=10.  10 (DUT).
Somatology curricula from each UoT	Programme analysis of curricula .	5 (UoT's).

### 3.3.1 PHASE 1: QUANTITATIVE

In the quantitative phase, survey questionnaires were distributed to all final year students across all UoT's in South Africa to assess their levels of satisfaction with current subject material, and to secure their opinions of what further knowledge needed to be built into current Somatology education. Telephonic contact was first made with the Head of Department of each UoT to explain the purpose of the study. An appeal was made to each Head to assist with the distribution of the questionnaires to their students. They were also asked to gather the questionnaires after students had completed them and mail their batch back to the researcher. It was re-iterated that student participation in the study was voluntary. All the Heads of Departments were keen to assist with this process.

Batches of questionnaires were then posted to the Heads of Departments at each institution using a courier service in 2012 and 2013. A tracking system was utilised to ensure that the questionnaires would be delivered 'to the door' of institutions overnight. Each batch of questionnaires contained a covering letter to each Head of

Department (Appendix A) together with a letter of information and consent to the students (Appendix B), where the nature and purpose of the study was discussed. The answer sheets were numbered to aid data capturing. The questionnaire took a maximum of fifteen minutes to complete, which was calculated during the Pilot testing procedure. A return docket was then attached by the courier service, and the tracking device was used again to ensure that each batch of questionnaires would be promptly returned to the researcher.

Telephonic and e-mail contact was made when the questionnaires arrived at the respective UoT and before dispatch to the researcher. All UoT's reciprocated with regards to timeously completing and returning the questionnaires.

### **3.3.2 PHASE 2: QUALITATIVE**

This phase involved interviews with the Somatology UoT academics and focus groups with Somatology (DUT) advisory board members. Permission and willingness to participate was first sought, also ensuring anonymity and confidentiality in terms of participation. All were notified that tape recording devices were used and permission for recording the interviews was sought. It was explained that the interviews would be transcribed at a later stage.

Ten academics who were employed on a permanent basis were interviewed. Prior to the interview it was requested by participants to view the list of pre-determined questions in order to gain familiarity with the questions that were going to be asked. This was accepted by the researcher and later proved to be an advantage as the participants were prepared. The ten academics comprised of two representatives from each of the five UoT's, viz. Central University of Technology (CUT), Cape Peninsula University of Technology (CPUT), Durban University of Technology (DUT) Tshwane University of Technology (TUT) and the University of Johannesburg (UJ).

Ten Somatology advisory board members from DUT were invited to the focus group discussion. This was done through e-mail and telephonic requests. Due to work and personal commitments only six advisory board members attended. After a lengthy

and informative discussion, themes were formulated to interweave the conclusions formulated by the focus group.

### **3.3.3 PROGRAMME ANALYSIS**

A programme analysis of Somatology curricula was done across all UoT's. This was achieved by accessing and analysing the curricula material from handbooks, subject descriptors and learner guides received from academic staff across the UoT's. The main therapy module content within the subjects of aesthetics, facial therapy and body therapy was most sought after. UoT's assisted by mailing electronic copies, posting documents and directing the researcher to online information. A thematic analysis was then undertaken across the specific therapy modules practiced in the Somatology curricula across the five UoT's in South Africa. This was to ascertain if all therapy module content was compiled in correlation with each other in order to have a better idea of the current state of the Somatology education in South Africa.

## **3.4 SAMPLE DESIGN**

The samples used in the study were purposive samples, as they were selected using the judgment of the researcher. It was also because the sample is composed of elements most representative of the population (Strydom and Delport 2001).

Cohen, Manion and Morrison (2007: 100) identified four key factors when considering sampling:

- the sample size
- representatives and parameters of the sample
- access to the sample
- the sampling strategy to be used.

With reference to the above in the current study, educators and students are seen as being in a pivotal position to identify gaps in education and what further content was required to enhance Somatology education. Members of the Somatology advisory

board (DUT) were seen as important in shedding light on what further education needed to be integrated into training based on the needs of industry.

#### **3.4.1 SAMPLE 1: SURVEY QUESTIONNAIRE - SOMATOLOGY STUDENTS**

The first objective of the study was to conduct a survey with final year Somatology students at all UoT's nationally. Concerns about an inadequate sample size due to pass- and drop-out rates from first year to third year level directed the researcher to engage only final year and B.Tech students at the five UoT's in South Africa in the study. It was also anticipated that the inclusion of the B-techs would strengthen the research findings as they were in a better position to review the educational content after recently qualifying from the National Diploma level. By utilising both cohorts of students, viz. final year and B.Tech students, it was presumed that they would be able to assess educational gaps in the Somatology field and thus be able to provide additional information on what was needed to strengthen the course from their own knowledge. In this phase the sample and the population are one, as all students from both third year and N.Dip levels were included. This was considered to be more practical and allowed for an increased response rate.

#### **3.4.2 SAMPLE 2: IN-DEPTH INTERVIEWS - UoT ACADEMICS**

The population for this sample was all Somatology academics from each of the five UoT's in South Africa (n=10). It was decided only two academics per UoT would be part of the sample. This uses a convenient accessible sample. A list of the population was accessed through an annual UoT curriculum meeting which was held at the Durban University of Technology. Given their experience and expertise in education, it was felt that this sample would best be able to comment on relevant issues needed for enhancing the Somatology profession and education.

#### **3.4.3 SAMPLE 3: FOCUS GROUP DISCUSSION - ADVISORY BOARD MEMBERS (DUT)**

In order to gain input from an industry perspective, the advisory board members for the Somatology programme at the Durban University of Technology were sought. This was necessary because samples one and two were confined to the Somatology



education field, to understand what other educational content may be required to strengthen the somatology profession across all UoT's. It was also pivotal in identifying whether Somatology graduates were meeting the requirements of industry.

### **3.5 DATA COLLECTION TOOLS**

Good data collection tools are essential for a research project to run smoothly and for the data to be trusted and form a crucial aspect of the research design (Pawar 2007). The idea of combining qualitative and quantitative approaches in a single study provided greater confidence in what areas are targeted and allowed for accurate capturing (De Vos 2001). The following tools were used in accordance with the developmental objectives of the study.

#### **3.5.1 PHASE 1: QUANTITATIVE - SURVEY QUESTIONNAIRE**

Survey questionnaires were designed to gather direct information regarding somatology education. Questionnaires are often used to gather information about attitudes, behaviours, activities and responses to events, and usually consist of a list of written questions (Wisker 2001).

Wisker (2001) points out that questionnaires need to:

- Be kept confidential;
- Be piloted and refined;
- Be really able to ask the questions you want;
- Avoid ambiguities and multiple questions.

##### **3.5.1.1 QUESTIONNAIRE DESIGN**

There are several kinds of questions and response modes in questionnaires with each posing advantages. For the purpose of the study two kinds of questions were selected to be used in questionnaire design. They were:

- 1) **Closed Questions:** The questionnaire comprised of mainly pre-set and Likert-type questions which asked participants to respond using five alternatives ranging from 'strongly agree' to 'strongly disagree' (Strydom and Delport 2005). Cohen, Manion and Morrison (2007: 321) identified advantages of this type of question as being:
  - They generate frequencies of response amenable to statistical treatment and analysis;
  - They are quick to answer and easy to code and offer a limited range of options;
  - They enable comparisons to be made across groups in the sample;
  - They are quicker to code up and analyse than word-based data;
  - They are often direct to the point and deliberately more focused than open-ended questions.
- 2) **Open-ended Questions:** This option was provided to allow participants to explain add and qualify their responses. It avoids limitations of pre-set categories given in closed questions (Cohen, Manion and Morrison 2007). Strydom and Delport (2005) stated that some advantages of this style of questioning are they it allows for a greater freedom of expression and are also easy to ask. Cohen, Manion and Morrison (2007), however, stated that the disadvantage of this type of question is that data analysis is not easily compared amongst participants and it becomes time consuming to code and classify themes. This may result in the researcher misinterpreting or misclassifying a response. A covering letter/information letter was designed to accompany the questionnaire. The letter was brief so that it would not seem confusing to the participant.

### 3.5.1.2 DESCRIPTION OF QUESTIONNAIRE

Appendix C contains a copy of the survey questionnaire. The three sections within the questionnaire are described as follows:

**Section A:** Comprised of biographical questions and background variables, which helped to establish information such as age, gender, first language, race, year of study and identification of UoT to which the participant belonged.

**Section B:** This section focused on curriculum and skills training analysis. Students were asked to indicate whether or not subjects covered in the curriculum provided adequate theoretical and practical knowledge. For subjects that were answered '2=disagree', students were asked to briefly state what further knowledge/skills should be included. This formed the basis to explore new knowledge for Somatology education.

**Section C:** The section comprised of qualitative questions which probed current Somatology education. Students were given an opportunity to indicate their views about what was further needed within Somatology education. Students were also requested to respond with clear and informative responses.

#### **3.5.1.3 CODING OF QUESTIONNAIRE**

Each question of the survey questionnaire was numbered. The possible answers that could be given to any question were also coded. This ensured that the answers could be analysed using a data processing programme to obtain information. The computer programme that was used was SPSS version 18.0 for Windows. For 'Agree/Disagree' answers, the 'Agree' was coded as (1), and the 'Disagree' was coded as (2). Where questions did not apply to certain students, due to subject variances with one UoT, a 'Not Applicable (N/A)' option was given and was coded as (3). For the open-ended answers, codes were assigned in relation to common themes. This was done to aid statistical purposes.

Closed questions and fixed responses were much easier to code than open-ended questions. Open-ended questions had no predetermined number assigned to any answer. After the collection of the questionnaires, all the different answers to the open-ended questions were noted. Similar answers were grouped together and thematic analysis undertaken.

For answers that were left blank, the majority of answers for that specific question by other respondents was also applied.

#### **3.5.1.4 PILOT STUDY**

Stebbins (2001: 29) emphasised the need to pre-test measuring instruments and conduct pilot studies in order to “iron out kinks in procedure and sharpen precision so the main study could proceed as flawlessly as possible”. A pilot study was undertaken with four students who were not included in the sample. Fouche and Delport (2005: 82) stated that by using pilot procedures it allows it “to bring possible deficiencies to the fore timeously”. The problems were noted and were immediately rectified and re-tested. There were minimal changes. This involved slight variations in subject names with one UoT in particular, although module content was essentially the same. This UoT was identified as the University of Johannesburg (UJ). For this reason a slightly modified questionnaire was designed, which included a non-applicable (N/A) column. This was inserted into the questionnaire for students that did not cover that specific subject from the other UoT’s.

#### **3.5.2 PHASE 2: QUALITATIVE - INTERVIEW SCHEDULE**

In the qualitative phase, in-depth semi-structured interviews were held with academics across all UoT’s, together with a focus group discussion with members of the Somatology advisory board (DUT). An interview schedule was used to guide the process (Greeff 2001). The schedule consisted of pre-determined open-ended questions which facilitated a semi-structured interview with Somatology academics. Questions revolved around current course content and probed their views on areas or aspects that should be involved in education.

A focus group was also conducted as a second part of the qualitative phase. This technique is considered to obtain rich information about social problems (De Vos 2005). It is a group discussion ranging from approximately 90 to 120 minutes, which is led by a trained moderator, involving a maximum of ten people who are recruited for the session based on their common demographics, attitudes, or buying patterns germane to the topic (Greenbaum 1998). This tool was used to facilitate a discussion

with members of the Somatology advisory board (DUT). Questions focused on areas for curricula development based on the current needs of industry.

### **3.5.2.1 CODING OF INTERVIEWS AND FOCUS GROUPS**

To ensure anonymity all participants were given code names. In the interviews conducted with academics from UoT's, coding was structured in a way to disclose the two academics from each independent UoT, eg. Academic 1 and Academic 2 from each UoT were coded as 'A1' and 'A2' from 'UoT 1'. Coding with the focus group participants followed in a similar style, with the participants from the advisory board coded as 'P1' and 'P2' etc.

## **3.6 DATA ANALYSIS**

### **3.6.1 PHASE 1: SURVEY QUESTIONNAIRE**

Survey questionnaires were analysed through the use of computerised data analysis software, specifically the Statistical Package for Social Sciences Version 18.0 (SPSS). Where possible, statistical tests were run to examine the association or differences in responses between students from the different UoT's to draw meaningful relations between them (Kruger *et al.* 2005). Leedy (1993: 273) listed some of the advantages of computer statistical analysis programmes as being range, degree and power of available statistics, increased user-friendliness, increased user level of confidence, speed of completion and the potential view of the data. The SPSS package thus enables various kinds of advantages in statistical information to be analysed. The programme enabled frequency distributions, cross-tabulations, means and summaries to analyse data. Frequency distributions are descriptive statistics and provide a summary of the patterns found in the information. They are simply a tally of how often certain data items occur within a data set. From the information that was then statistically analysed, a graph was drawn up to illustrate the results. Conclusions were drawn and recommendations made from these results.

### **3.6.2 PHASE 2: IN-DEPTH INTERVIEWS AND FOCUS GROUPS DISCUSSIONS**

Analysis of the data generated from the in-depth interviews involved transcribing of the tape recorded discussions, generating common categories, themes and patterns within the data and coding (De Vos 2005). The same process was applied to the focus group discussion, as well as the programme analysis of specific curricula content. Common themes and patterns were identified and the gaps across the UoT's were identified in terms of educational aspects, which enabled the researcher to establish what is required to be included in the curricula (De Vos 2005).

### **3.6.3 PROGRAMME ANALYSIS**

All subjects and the specific content contained therein were obtained from all the Somatology UoT's in South Africa. The therapy modules under the relevant subjects were then extracted from all of the five UoT's, compiled and tabulated. Tabulation was then created in relation to therapy modules against the UoT's that were listed. A 'tick-list' was then generated to establish consistency and gaps against all the UoT's. Conclusions were then drawn from the tabulations and frequency rates.

## **3.7 VALIDITY AND RELIABILITY**

Bhagwan (2002) emphasised that when researchers pursue the measurement of a variable, they need to know if their instruments are credible and trustworthy. Payne and Payne (2004) identified two main questions regarding credibility when it comes to research. The first question addresses whether similar results will be captured from the study if it were to be repeated. The second question is more perplexing whereby even if the same results were obtained, would they be correct, ie. has it actually measured what needs to be looked at, in a way that accurately captures its characteristics. The first question thus relates to reliability, and the second to validity.

Validity can therefore be defined as an extent to which an explanation of how and why some social phenomenon occurs is the correct one, and can be referred to as internal validity (Jupp 2006: 312). Jupp (2006) added that internal validity is

commonly associated with quantitative research and the search for causes can also be established by qualitative researches. All data tools which comprised of questionnaires, interview schedule and focus group discussions, can be seen to have face and content validity.

The validity of the survey questionnaires can be seen from two diverse viewpoints. Firstly, whether respondents who complete the questionnaire do with accuracy and secondly, whether those who failed to return their questionnaires would have given the same distribution of answers as did the returnees (Cohen, Manion and Morrison 2007). Cohen, Manion and Morrison (2007: 157) listed possible strategies that can be included to promote validity:

- Including stamped addressed envelopes;
- Stressing the importance of the questionnaire;
- Following up on questionnaires by telephone calls;
- A friendly third party providing encouragement to participate;
- Understanding the nature of the sample population in depth, so that effective targeting strategies can be utilised.

These strategies were implemented in order to maximise the response rate to postal questionnaires sent to UoT Somatology students across South Africa. Although the interview schedule and focus group discussions were standardised throughout, it did not contain any terms that were ambiguous or unfamiliar to the participants which proved to strengthen the validity and possibly lead to reliability.

Reliability has been defined as “a property of a measuring device for social phenomena which yields consistent measurements when the phenomena are stable, regardless of who uses it, provided the basic conditions remain the same” (Payne and Payne 2004: 196). The meaning of reliability differs in quantitative and qualitative research. Cohen, Manion and Morrison (2007) stated that reliability in quantitative research assumes the possibility of replication and is essentially a synonym for dependability, consistency and duplication over time, instruments and groups of respondents; qualitative research is known for comprehensiveness, detail, honesty, depth of response and meaningfulness to respondents.

The advantages of the questionnaire over interviews and focus groups tends to be more reliable because it is anonymous, encourages honesty, is more economical in terms of time and money. On the other hand the disadvantage is that there is a low percentage of returns.

### **3.8 STUDY SETTING**

The research setting was primarily based at the Durban University of Technology. This was comprised of:

- Questionnaires were disseminated to the respective UoT which formed their study setting.
- It was beneficial to the researcher that all interviews were conducted with UoT academics at the Durban University of Technology. This was conducted during the annual curriculum review meeting hosted by the DUT Somatology programme in 2011. The attendees constituted two representatives from each UoT, which was the cohort sample size required for the study. It was fortunate for the researcher that no travel expenses or loss of time was incurred, as individual visits to all the UoT's were curtailed.
- The focus group was held at the DUT for existing Somatology advisory board members from the Somatology programme at DUT; this was a usual meeting place for all members.

### **3.9 INCLUSION CRITERIA**

- **Sample 1:** Somatology students included those in their third year of study and who will exit with a National Diploma. B-tech students were also included as they have a mature outlook over the N.Dip programme and would have also contributed to a larger sample size.
- **Sample 2:** All full-time Somatology lecturers who were employed by UoT's which were offering the Somatology Programme in South Africa and who were willing to participate in this study.



- **Sample 3:** Advisory Board members must have attended at least two Somatology advisory board meetings held at the Durban University of Technology.

### **3.10 EXCLUSION CRITERIA**

- Part-time Somatology lecturers were excluded.
- Somatology students in their first or second year of study were excluded.
- Advisory Board members that had not attended at least two Somatology advisory board meetings held at the Durban University of Technology.

### **3.11 RESEARCH EXPENSES**

The printing of the survey questionnaires and postage costs were the primary research expenses, due to the length of the questionnaire and the number of copies required. The dissemination and the return of the questionnaires included the use of a courier service with a tracking system from the researcher to the different institutions over a large geographical area. Funds obtained from the DUT postgraduate funding were valuable in meeting these expenses and ensuring the safe and timeous distribution of these items.

### **3.12 ETHICAL CONSIDERATIONS**

Ethical issues limit the kinds of problems investigated by the social scientist and the methods used to obtain valid and reliable data (Cohen, Manion and Morrison 2007). This informs the researcher that at each stage of the data collection ethical considerations must be considered. According to Pawar (2007: 7) researchers need to accumulate data according to the set ethical standards, which are often grounded in certain values and principles such as “honesty, truthfulness, privacy and confidentiality, self-determination and voluntary involvement, zero physical and psychological harm, dignity and worth of human beings, accountability, right to know on the part of respondents, fairness and impartiality on the part of researchers, and

informed consent”. In order to uphold these principles of ethical research the following aspects were given due consideration during the research process.

### **3.12.1           PRIVACY AND ANONYMITY**

Survey research invades a person’s privacy when beliefs, backgrounds, and behaviours are probed in a way that reveals private information (Neuman 2003) Privacy was protected by allowing participants to remain unknown or anonymous. As data analysis was done for the collective sample and not in relation to each institution, the anonymity of each institution was also protected. Academics and Advisory board members were also reassured of anonymity in terms of their participation as they did not give their names.

### **3.12.2           INFORMED CONSENT AND APPROVAL**

Informed consent is integral in a research design and can be defined as an “ethical principle implying a responsibility on the part of the social researcher to strive to ensure that those involved as participants in research not only agree and consent to participating in the research of their own free choice, without being pressurized or influenced, but that they are fully informed about what it is they are consenting to” (Davies 2006: 150). Many government and non-government organisations, universities, and research firms have well-developed research ethics committees and ethics clearance application forms (Pawar 2007; Israel and Hay 2008). Israel and Hay (2008) stated that researchers must convey consent from all relevant people for all relevant matters, and (possibly) at all relevant times. Pawar (2007) added that when seeking consent, the researcher should explain the nature and purpose of research, provide satisfactory answers to all questions, ensure that respondents are voluntarily involved and that no pressure is used, and allow the respondent to withdraw from the research at any time if he or she desires to do so.

In keeping with this, voluntary participation was emphasised to all participants. This involved covering letters to Heads of Departments and students (Annexure A) pertaining to the survey questionnaire, containing sufficient information for students

to make an informed decision about participation. Interviews with academics and Advisory Board members also involved emphasising voluntary participation. Verbal consent was recorded via an electronic recording device.

In order to remain within the constraints of good ethical practices, participants were informed of and supplied with the following:

#### **3.12.2.1      SAMPLE 1: SURVEY QUESTIONNAIRES TO STUDENTS**

A written introduction was presented to the students with the following:

- ✓ A brief description of the nature and purpose of the study;
- ✓ An assurance of anonymity and confidentiality;
- ✓ The identification of the researcher and contact details;
- ✓ A statement that participation was totally voluntary;
- ✓ A statement about the value of the study.
- ✓ A declaration where students to sign as their agreement to participate in the study.

#### **3.12.2.2      SAMPLE 2 AND 3: IN-DEPTH INTERVIEWS WITH UoT ACADEMICS AND FOCUS GROUPS DISCUSSIONS WITH ADVISORY BOARD MEMBERS**

A verbal introduction to the proposed study was presented to all. This included:

- ✓ A request to participants to be honest and forthcoming in the discussion that would be held, in order for the researcher to obtain data that was correct and sufficient enough for analysis;
- ✓ An explanation as to how the data would be collected, stored and processed;
- ✓ Proposed time and venue for the interview schedules and focus group;
- ✓ Verbal reiteration just prior to the commencement of interview and focus group was done to ensure anonymity and how confidentiality would be sustained.

### **3.12.3 DATA MANAGEMENT AND STORAGE**

Only the researcher, supervisor and statistician had access to the raw data. The data was then kept in the possession of the researcher and will be discarded after fifteen years by shredding the documents. In the interim, the questionnaires will be locked in a secure office based at the Durban University of Technology, Department of Chiropractic and Somatology. All voice recordings and transcribing will be kept in an electronic format and stored in a disc in a locked cabinet.

### **3.13 LIMITATIONS**

Greef (2001) stated that even in the most carefully planned research study potential limitations are often numerous and it is important to be documented. With this in mind, the challenges confronted in the research process are clarified. The following sub-headings formed a discussion of what may be considered as the limitations of the study and the efforts made to confront these limitations.

#### **3.13.1 SURVEY QUESTIONNAIRE TO STUDENTS**

Although 125 questionnaires were disseminated, only 71 (56. 8%) were returned. Although this is not a strong response rate, it had met the statistician's requirements for analysis to begin. Generalisations, however, could still be made given that this was a national study and that all the Somatology departments across the five UoT's participated. Poor response rates from some institutions were offset by institutions with good response rates. The poor response may have been attributed to the availability of students at the time of dissemination of the questionnaires, due to absenteeism and timetable variances. Although the participation rate was acceptable for a mailed survey, the responses of those who participated may differ from those who did not participate and thus may have impacted on the findings. Although the national curriculum content was the same, UJ subject names were different from the other four UoT's and hence a collaborative questionnaire was designed to accommodate the variation of subject names as well to minimise excessive coding for statistical purposes. It is here that some students found it difficult to comprehend and might have misinterpreted the subject name with subject

content and may have answered to subjects not assigned to their respective UoT. Significant knowledge and key gaps were identified, however, irrespective of this.

### **3.13.2 TIME SPAN OF STUDY**

The research study was operationalised over a period of approximately three years. Data collection relative to all the sources of information occurred during this time-period. The researcher had to keep abreast of relevant trends in Somatology education and adapted the guidelines accordingly. Since curriculum planning in itself is a “dynamic process” (Bhagwan 2002: 56) and the fact that courses may have been developed for the upcoming curriculum renewal, the research findings will still have value for the curriculum renewal process. Discussions with Heads of Departments in the year 2011 indicated that the study will provide the impetus and the information necessary to further develop the course, and future studies should address any gaps after the curriculum renewal has been completed.

### **3.14 CONCLUSION**

In this chapter the research methodology was discussed. This chapter aimed to outline the following:

- The detailed research method and design as well as the sampling procedures.
- It provided a methodological basis for the collection of the data so that the process of scientific enquiry was achieved.
- It provided an account of the target areas as well as the data collection and analytical techniques used.

The discussion of the ethical issues and challenges that confronted the study brings the chapter on research methodology to its conclusion. The fourth part of this dissertation focuses on results, findings and discussion of the research study.

# CHAPTER FOUR

## ANALYSIS AND DISCUSSION OF FINDINGS

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***“Like energetic recycling, we take beauty in,  
soak it up and then radiate it out.***

***By recognizing the beautiful, we become beautiful...”***

**- Sarah Voldeng**

### 4.1 INTRODUCTION

This chapter presents the data collected from the three samples involved in the research study. It also presents the data from the qualitative analysis of the course outlines received from all Universities of Technology. Campbell (2012) wrote that there are two types of findings that emerge from research studies viz. closed findings and broad findings. Closed findings “emerges directly from the data analysis” whilst broad findings “expands to include the literature and practical issues encountered” (Campbell 2012: 60). Both these findings are synthesised to form a collective whole in this chapter.

As previously indicated, four sources of data were used to inform the research process and recommendations generated in this study. This enabled breadth and depth in terms of data collected from multiple sources, which ultimately provided richness and accuracy in terms of the findings made. Survey questionnaires which were completed by final year students, in-depth interviews with UoT academics and a focus group discussion with Advisory Board members were used holistically to inform the findings and recommendations generated to further guide Somatology education in South Africa. Included in this process was a programme analysis of all the main modules covered in Somatology across all Universities of Technology in South Africa.

The previous chapter highlighted the methodology used to guide the study. In the sub-sections that follow the data and findings are presented in relation to each sample, before they are interweaved to guide the recommendations.

## **4.2. ANALYSIS AND INTERPRETATION OF FINDINGS**

The analysis and interpretation of the data is presented under the following four sub-sections, as indicated:

**Section 1:** Sample 1 - Survey questionnaires with Somatology students at UoT's.

**Section 2:** Sample 2 - Interviews with Somatology UoT academics.

**Section 3:** Sample 3 - Focus group discussion with Somatology Advisory board members.

**Section 4:** Programme analysis of Somatology curricula.

## **4.3 SECTION 1: SAMPLE 1 - SOMATOLOGY STUDENTS AT UOT'S**

The survey questionnaire was the primary tool utilised to collect data and was distributed to Somatology students at various Universities of Technology in South Africa. The content of the questionnaire was primarily aimed at seeking quantitative data, although a few open ended questions were included which focused on aspects to improve the current Somatology education programme. The results are presented as descriptive statistics in the form of graphs, cross tabulations and other figures. The open-ended data was collated and presented in the form of a table.

The questionnaire consisted of nineteen items, with the level of measurements at a nominal or an ordinal level. The questionnaire was divided into three sections which measured various categories as listed below:

**SECTION A:** Demographic data.

**SECTION B:** Curriculum and skills training analysis.

**SECTION C:** Curricula Development.

The two most important aspects of precision are reliability and validity. Reliability was computed by taking several measurements with similar subjects. A reliability coefficient of 0.70 or higher is generally considered as 'acceptable'. The overall reliability score of 0.942 exceeded the recommended value of 0.70. This indicates a high (overall) degree of acceptable, consistent scoring for this research. Sections B and C had reliability scores that exceeded the minimum required value.

In total, 125 were distributed throughout the country to the various UoT's and 71 were returned, which yielded a positive response rate of 56.8%.

#### **4.3.1 SECTION A: DEMOGRAPHIC DATA**

Demographics are the study and analysis of the characteristics of a particular group of people or population that is included in a study (Angelo 2008). The demographic data pertaining to this study consisted of information related to age, race, home language, and identification of the UoT to which students belonged. The findings are presented below.

##### **4.3.1.1 AGE**

**TABLE 4: AGE LEVELS OF RESPONDENTS**

<b>Age Group</b>	<b>Frequency</b>	<b>Percent</b>
19-20	9	12.7%
21-22	34	47.9%
Over 23	28	39.4%
Total	71	100%

As is reflected in Table 4, nearly half of the sample (47.9%) was between the ages of 21 to 22 years, with a further 39.4% being older than 23 years. Vosloo (2009) made similar findings in her study and argued that the strenuous physical aspects of the profession accounted for the fact that mainly younger people sought this profession. This was in line with Richter and Jooste (2013) who said that Somatology therapists

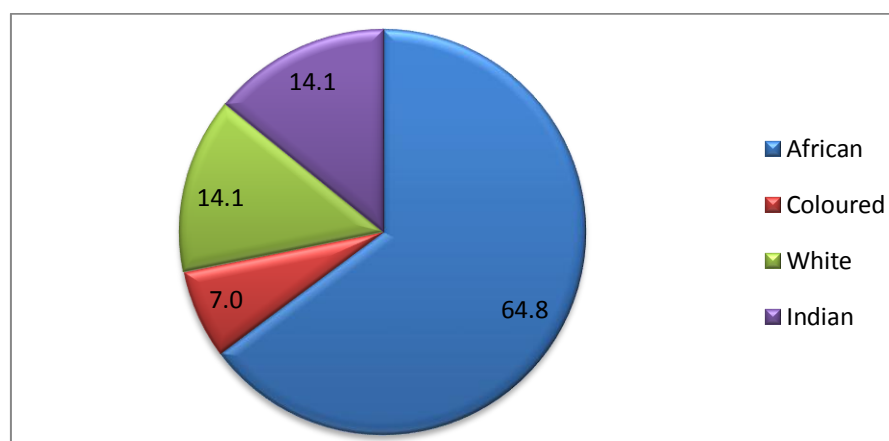


have a demanding occupation, both physically and emotionally, due to the long working hours coupled with the strain of ensuring high quality client care.

The sample was also found to consist primarily of females, a finding that was also reflected in the samples in Reid (2006) and Borg's (2009) studies. This was not surprising given that beauty therapy and Somatology is linked more with females and hence the female dominance in the sample. It has been observed, however, that a few males have registered for the qualification recently at the Durban University of Technology. This may be due to the fact that in recent times more males are seeking beauty treatments and that males are now offering make up services in the modelling industry.

#### **4.3.1.2 RACIAL COMPOSITION OF THE SAMPLE**

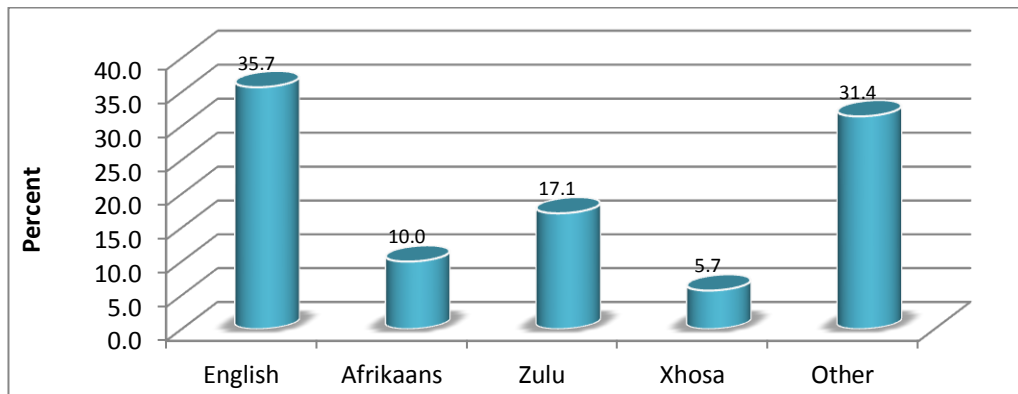
Nearly two-thirds (64.8%) of the sample were Africans, followed by White and Indian respondents with similar percentages (14.1%). The high prevalence of Africans reflects the current South African context where the majority of the population is African. The fact that there are a larger number of African students as opposed to other racial groups is aligned with equity policies which are aimed at redressing past imbalances and creating greater opportunities for black South Africans to enter and study at local tertiary institutions (Bhagwan 2002). Reid (2006) also found a dominance of African students in the undergraduate mix of the Somatology programme in her study.



**FIGURE 2: RACIAL COMPOSITON OF THE SAMPLE**

#### 4.3.1.3 HOME LANGUAGE OF RESPONDENTS

The home language of the respondents is presented in Figure 3 below.



**FIGURE 3: HOME LANGUAGE OF RESPONDENTS**

A little more than a third of the respondents (35.7%) indicated that English was their home language, with a further 31.4% indicating that they spoke a language not listed as an option. These languages were not identified. The latter may be due to the fact that a majority of the sample was African. Further, a variety of ethnic groups exist in South Africa where there are eleven official languages. Whilst home languages appear diverse, all students are proficient in English as this is the medium through which teaching occurs. That these students are also proficient in other languages was important as this would ultimately be useful when serving clients from diverse ethnic backgrounds.

#### 4.3.1.4 COMPOSITION OF THE SAMPLE PER UoT

Table 5 on the following page presents a cross-tabulation between the year of study of the respondent and the institution at which they are studying.

**TABLE 5: COMPOSITION OF THE SAMPLE PER UOT**

Name of UoT	3 <sup>rd</sup> Year		B-tech		Total	
	No.	Frequency	No.	Frequency	No.	Frequency
TUT	19	27.1	0	0.0	19	27.1
DUT	13	18.6	8	11.4	21	30.0
CPUT	0	0.0	10	14.3	10	14.3
UJ	4	5.7	1	1.4	5	7.1
CUT	15	21.4	0	0.0	15	21.4
<b>TOTAL</b>	<b>52</b>	<b>72.9</b>	<b>19</b>	<b>27.1</b>	<b>70</b>	<b>100</b>

Five UoT's in South Africa participated in this study. Questionnaires were distributed to both B. Tech and N. Dip students. The extension to the B-tech students was because it was believed that some would already have had some industry experience, and could therefore provide valuable insight into how to further develop the educational content in the N. Dip Somatology Programme in accordance with industry needs. There was missing data for one student who did not answer this specific question. With regard to the rest of the sample, approximately 72.9 % were found to be in their third year of study, with the other 27.1% being in the B. Tech programme. In terms of the third years, most of the respondents were from TUT (27.1%), CUT (21.4%) and DUT (18.7%) respectively.

#### **4.3.2 SECTION B: SUBJECTS AND SKILLS TRAINING ANALYSIS**

This section deals with subjects currently covered in the Somatology Programme across all UoT's. Subjects were categorised into first year, second year and third year subjects within the context of the National Diploma. The objective was to enquire if the current subjects (both theoretical and practical subjects listed) provided adequate theoretical knowledge and practical training for work preparedness according to the needs of industry.

This framed the following two questions in this section:

**Question 1:** *“Do you think that the following subjects covered in your Somatology curriculum provided adequate theoretical knowledge?”* (All theoretical subjects listed).

**Question 2:** *“Do you think that the following subjects covered in your Somatology curriculum provided adequate practical training?”* (All practical subjects listed).

Respondents were required to rate the listed subjects by ticking 1=Agree, 2=Disagree and 3 =Not applicable. Participants who indicated a response of ‘Disagree’ were then required to state what further knowledge/skills they thought should be incorporated into Somatology education. Although the majority of the course content was similar across all UoT’s, the University of Johannesburg (UJ) was unique in that it presented different subject names and also had other modules different from those at other UoT’s. The response ‘Not Applicable’ that was included in the questionnaire allowed for the four other UoT’s that did not have these subjects in their Programme levels to select this response.

This section analyses the scoring patterns of the respondents per variable per section. Levels of disagreement (negative statements) were collapsed to show a single category of ‘Disagree’. A similar procedure was followed for the levels of agreement (positive statements). This is allowed due to the acceptable levels of reliability. The results are presented using summarised percentages for the variables that constitute each section.

#### **4.3.2.1      SCORING PATTERNS FOR FIRST YEAR THEORETICAL SUBJECTS: (QUESTION 1)**

All first year subjects form the foundation of the Somatology Programme upon which second year level subjects are built. The summarised scoring patterns for first year subjects are reflected in Table 6 below. A majority of the respondents identified all subjects as being important in terms of providing adequate theoretical knowledge.

Aesthetics (11.6%) and Biotics I (12.7%) were the subjects that received the highest levels of disagreement, which highlighted them as areas warranting further attention in education. When explored independently, Aesthetics forms the modules that cater for traditional beauty treatments. Aesthetics include hand and foot care therapies as well as hair removal techniques and make-up techniques, all of which are important client-needs in an industry context (Mbutu 2013). The respondents expressed that more therapies could be incorporated into this level. These include sugaring and threading as part of a new facet on hair removal techniques. The reason for the need for more information in relation to these therapies is the increasing popularity of these treatments at beauty salons and spas (Saha 2008).

The second subject identified as needing more theoretical knowledge was Biotics. Biotics is a subject that provides students with specific knowledge about exercise physiology and its interrelatedness to certain medical conditions (Jordan 2013). Open-ended responses from respondents revealed that the subject matter was too monotonous from levels one to three and was not relevant to their field of study. The content of the subject covers an intensive amount of theory, which may have contributed to a negative attitude towards the subject. Despite this, however, Biotics and issues pertaining to exercise and its interconnectedness with health-related conditions cannot be overlooked as part of a holistic approach to treatment. Perhaps it is important that educators revisit the current pedagogical approaches to this subject as one aspect of improving students' acceptance of its place in the Somatology profession. Biotics is definitely an integral part of industry needs and should not be overlooked.

A further two subjects were identified which were not listed at this level at DUT, TUT, CPUT and CUT. These subjects were listed as Soma-therapy (Body 1 & Facial 1) (87.1%) and Auxiliary Therapy, Mani & Pedi (91.5%) and were being taught at the University of Johannesburg. The average score for the level of agreement with regards to the first year subjects was 74.6%. This score excludes Soma-Therapy (Body 1 & Facial 1) and Auxiliary Therapy, Mani & Pedi, which are part of the University of Johannesburg curriculum. Hence it would appear that most students feel that this level is covered adequately except for the two areas identified above.

Recommendations regarding the strengthening of Somatology education at this level are contained in Chapter 6, and are presented in the form of broad guidelines as all other areas identified for further attention. This will enable academic's to have a foundation of what further content can be built into the guidelines presented here.

**TABLE 6: SCORING PATTERNS FOR FIRST YEAR THEORETICAL SUBJECTS:  
(QUESTION 1)**

<b>First year subjects</b>	<b>Agree</b>	<b>Disagree</b>	<b>Not Applicable</b>
Anatomy and Physiology I <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	100.0	0.0	0.0
Biotics I <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	87.3	12.7	0.0
Communication Skills <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	94.4	5.6	0.0
Science I <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	98.6	1.4	0.0
Aesthetics <sub>(DUT, CPUT, TUT, CUT)</sub>	88.4	11.6	0.0
Auxiliary Therapy, Mani & Pedi <sub>(UJ)</sub>	7.0	1.4	91.5
Nutrition I <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	98.6	1.4	0.0
Somatherapy (Body 1 & Facial 1) <sub>(UJ)</sub>	10.0	2.9	87.1
Soma Techniques I <sub>(DUT, CPUT, TUT, CUT)</sub>	87.3	1.4	11.3

#### **4.3.2.2 SCORING PATTERNS FOR SECOND YEAR THEORETICAL SUBJECTS: (QUESTION 1)**

The Table 7 on the following page captures the summarised scoring patterns for second year subjects in relation to question 1. The subjects confined to UJ were Body Therapy 1, Diathermy, First Aid, Facial Therapy II, Reflexology level 1 and Spa therapy. The average level of agreement with knowledge for work preparedness was 57.3%, which rose to 98.2% when the 'Not Applicable' responses were omitted. This showed a high level of agreement that the subjects at this level are adequate in providing theoretical knowledge for industry. Second year theoretical subjects build on first year subjects by providing increased theory in preparation for professional practice. The high pattern of not applicable scores relates to the fact that a majority of the respondents were from other Universities of Technology rather than UJ. The subjects pertaining to UJ included Aromatherapy, Body Therapy, Diathermy, First Aid, Facial therapy II, Reflexology Level 1 and Spa therapy. Although these subjects are done in isolation, aspects of content contained within were diluted under subject names for the remainder of the UoT's.

**TABLE 7: SCORING PATTERNS FOR SECOND YEAR THEORETICAL  
SUBJECTS: (QUESTION 1)**

<b>Second year subjects</b>	<b>Agree</b>	<b>Disagree</b>	<b>Not Applicable</b>
Anatomy and Physiology <i>(DUT, CPUT, TUT, CUT, UJ)</i>	100.0	0.0	0.0
Aromatherapy <i>(UJ)</i>	11.6	1.4	87.0
Body Therapy II <i>(UJ)</i>	8.7	1.4	89.9
Business Practice I <i>(DUT, CPUT, TUT, CUT, UJ)</i>	98.6	0.0	1.4
Computer Skills <i>(UJ)</i>	95.7	2.9	1.4
Diathermy <i>(UJ)</i>	8.6	2.9	88.6
First Aid <i>(UJ)</i>	11.3	0.0	88.7
Facial Therapy II <i>(UJ)</i>	11.3	0.0	88.7
Reflexology Level I <i>(UJ)</i>	11.4	0.0	88.6
Science II <i>(DUT, CPUT, TUT, CUT, UJ)</i>	98.6	0.0	1.4
Spa Therapy <i>(UJ)</i>	11.3	2.8	85.9
Soma Techniques II <i>(DUT, CPUT, TUT, CUT, UJ)</i>	97.2	0.0	2.8
Biotics II <i>(DUT, CPUT, TUT, CUT, UJ)</i>	98.6	1.4	0.0
Nutrition II <i>(DUT, CPUT, TUT, CUT, UJ)</i>	100.0	0.0	0.0
Socio Psychology I <i>(DUT, CPUT, TUT, CUT, UJ)</i>	97.1	0.0	2.9

#### **4.3.2.3 SCORING PATTERNS FOR THIRD YEAR THEORETICAL SUBJECTS: (QUESTION 1)**

The theoretical subjects reflected in Table 8 on the following page forms the third and final year of the National Diploma in Somatology. Theoretical subjects at this level are geared towards ensuring that graduates are empowered with all the relevant knowledge in terms of preparation for practice. Table 8 indicates that the average level of agreement for this question was 71.1% which rose to 97% when the not applicable subjects are omitted. The subjects that were 'Not Applicable' were subjects from UJ which included Aromatherapy II, Manual lymph drainage, Reflexology II. The summarised scoring patterns for third year subjects are shown below.

**TABLE 8: SCORING PATTERNS FOR THIRD YEAR THEORETICAL SUBJECTS:  
(QUESTION 1)**

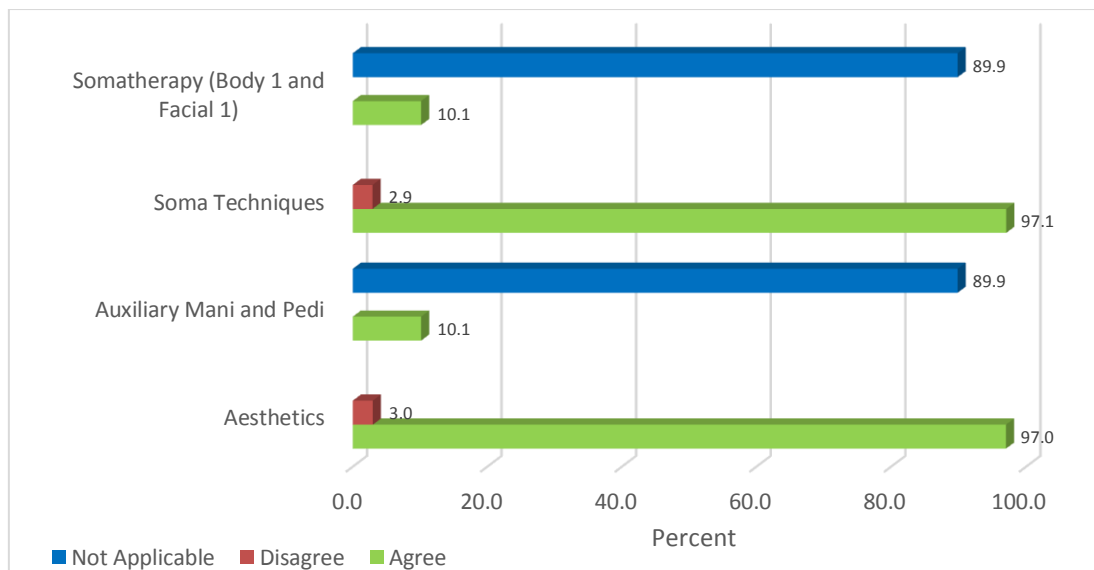
<b>Third year subjects</b>	<b>Agree</b>	<b>Disagree</b>	<b>Not Applicable</b>
Applied Biological Sciences III <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	98.6	1.4	0.0
Aromatherapy II <sub>(UJ)</sub>	11.3	1.4	87.3
Biotics III <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	94.4	4.2	1.4
Business Practice II <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	94.3	5.7	0.0
Manual Lymph Drainage <sub>(UJ)</sub>	9.9	2.8	87.3
Reflexology II	11.3	0.0	88.7
Socio-Psychology I <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	97.2	1.4	1.4
Soma-techniques III <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	98.6	1.4	0.0
Computer Skills I <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	100.0	0.0	0.0
Nutrition III <sub>(DUT, CPUT, TUT, CUT, UJ)</sub>	95.8	4.2	0.0

Socio-Psychology I and Computer skills are electives at this level. Both subjects had scored relatively high percentages with Computer skills scoring a 100%. Applied Biological Sciences III consists of two modules within this subject viz. Pharmacology and Microbiology, and had an overall score of 98.6 %.

#### **4.3.2.4 SCORING PATTERNS FOR FIRST YEAR PRACTICAL SUBJECTS: (QUESTION 2)**

Figure 4 captures the summarised scoring pattern for practical subjects covered in the first year. Programme analysis revealed that all practical components covered in the first year were the same across all the UoT's despite the subject names. Two subjects titled Soma-Therapy, Auxillary therapies, Mani's and Pedi's were confined to UJ. These subjects directly interrelated with contents covered under Soma-techniques and Aesthetics, which were taught by the remaining four UoT's. The average level of agreement was found to be 53.6%, which rose to 97.0% when the not applicable subjects were omitted. At this level Soma Techniques and Aesthetics were found to be most useful, which is reflected in the high levels of agreement. This indicated that substantial attention was being paid to this area for professional preparation.

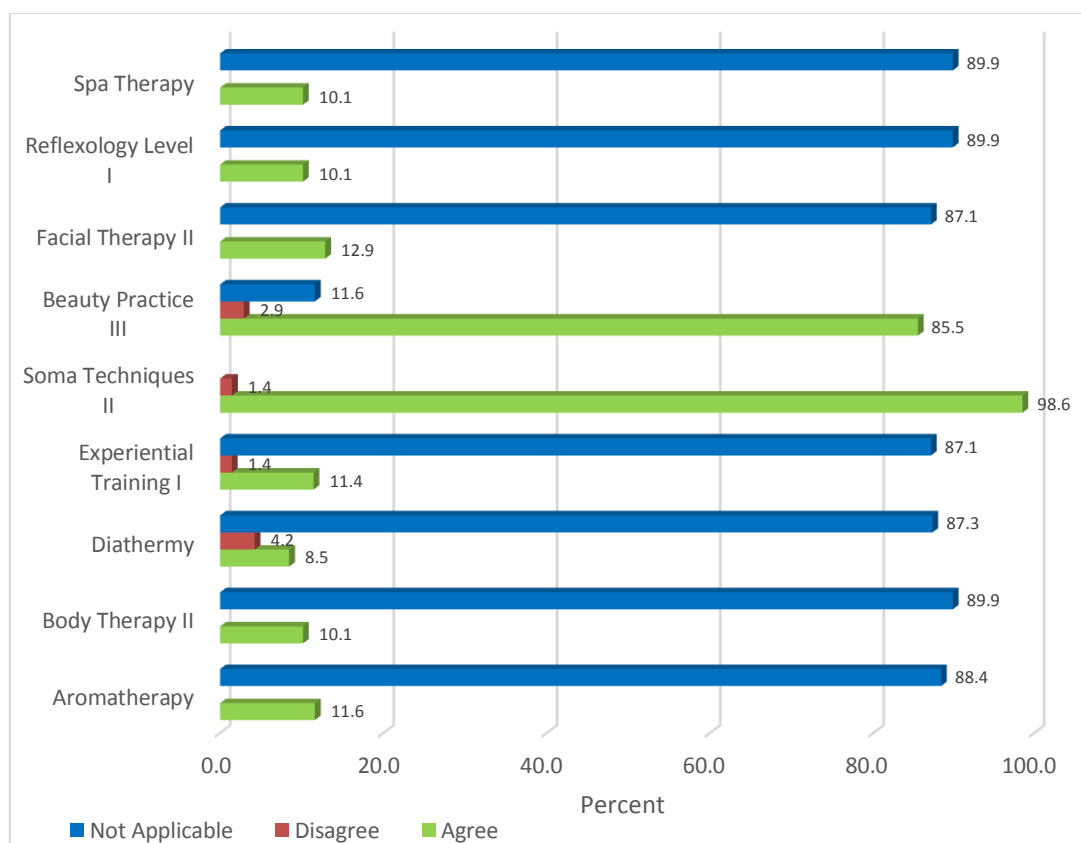




**FIGURE 4: SCORING PATTERNS FOR FIRST YEAR PRACTICAL SUBJECTS:  
(QUESTION 2)**

#### **4.3.2.5 SCORING PATTERNS FOR SECOND YEAR PRACTICAL SUBJECTS: (QUESTION 2)**

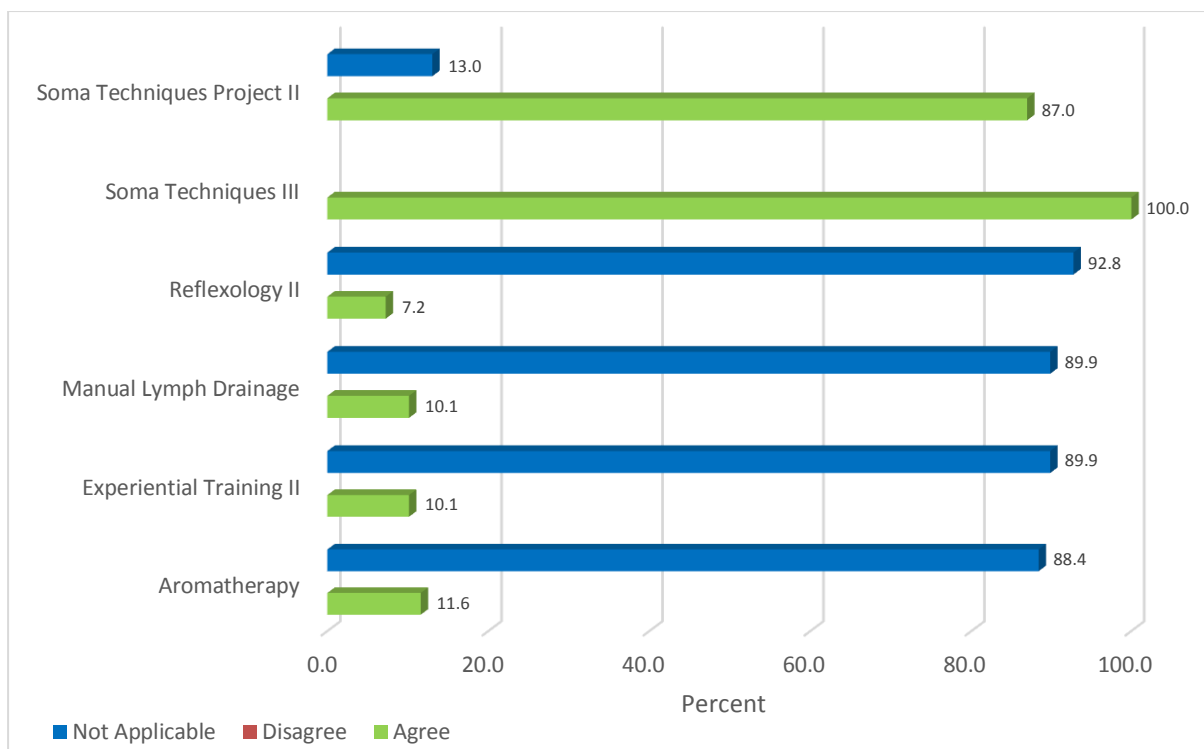
Figure 5 on the following page displays the average level of agreement at second year was 28.8%, which rose to 92.0% when the not applicable subjects were omitted. Subjects that fell under UJ comprised of Spa therapy, Reflexology 1, Facial therapy II, Experiential Learning I, Diathermy Body therapy and Aromatherapy. Two subjects called 'Beauty Practice III' (DUT, TUT, CUT, CPUT) and 'Experiential I' (UJ) directly interrelate with each other as they serve as work integrated learning at the respective institutions. The high scores received were good to note as these subjects form the bedrock for professional practice.



**FIGURE 5: SCORING PATTERNS FOR SECOND YEAR PRACTICAL SUBJECTS: (QUESTION 2)**

#### **4.3.2.6 SCORING PATTERNS FOR THIRD YEAR PRACTICAL SUBJECT: (QUESTION 2)**

The third and final year practical subjects focus intensively on work preparedness in the Somatology Programme. Figure 6 presents the average level of agreement was found to be 37.7% which rose to 93.5% when the not applicable subjects were omitted. The Work Integrated Learning subjects done at this level include 'Soma Techniques Project II' (DUT, CUT, TUT, CPUT) and 'Experiential Training II' (UJ). The high scoring of the WIL subjects reflects that perhaps students enjoy the practical aspect of the Programme and that the necessary practical skills to function effectively in industry have been provided. This is, however, from the perspective of students, and the views of Advisory Board members must be considered in relation to whether the clinical training ground of the University suffices or students need exposure at salons and spas in the industry context.



**FIGURE 6: SCORING PATTERNS FOR THIRD YEAR PRACTICAL SUBJECTS:  
(QUESTION 2)**

#### **4.3.3 SECTION C: CURRICULA DEVELOPMENT TO MEET THE NEEDS OF INDUSTRY**

This section of the questionnaire focused on qualitative responses from students. It was incorporated to give the students the opportunity to further express their views on what further educational and practical skill components needed to be further developed to enhance preparedness for industry. Open-ended answers to this section were then quantified to give a combined response from all the respondents as to what they felt needed to be incorporated into current Somatology education. Table 9 presents a tabulated response of the specific content identified, together with its sub-components. These areas together with the subjects identified from the quantitative analysis, formed the basis for guidelines which have been presented in Chapter six. They are presented as broad guidelines as educators can be creative and innovative in further developing this into definite modules within the context of the re-circulation process.

**TABLE 9: RECOMMENDED MODULES FOR SOMATOLOGY EDUCATION**

NO.	Title of module	Components	Frequency	
			n =	%
1.	Advanced temporary hair removal techniques	a) Sugaring	n= 38	54%
		b) Threading	n= 45	63%
2.	Tanning	a) Spray Tanning	n= 15	21%
3.	False eyelashes	a) Eyelash extensions/perming	n = 38	53%
4.	Make-up	a) Bridal	n= 25	35%
		b) Fantasy	n= 20	28%
5.	Artificial nails tips	a) Acrylic/Gel	n = 50	75%
6.	Henna	a) Henna temporary tattooing	n=15	21%
6.	Massage therapy	a) Indian head massage	n = 25	35%
		b) Lymphatic drainage massage	n = 15	21%
		c) Sports massage	n = 40	57%
7.	Facial therapy	a) Advanced chemical skin peels	n = 8	11%
		b) Microdermabrasion	n = 16	22%
		c) Intense pulsed light (IPL)	n= 20	28%
		Lasers		
8.	Spa body therapy	a) Exfoliation	n = 23	32%
		b) Wraps	n = 27	38%
		c) Hydrotherapy	n = 33	64%

#### **4.3.3.1 ADVANCED TEMPORARY HAIR REMOVAL TECHNIQUES**

With the advent of newer methods of hair removal, many clients with unwanted hair are seeking varied treatment options. Wanitphakdeedecha and Alster (2008: 392) noted the following factors relating to hair removal treatment options of concern to clients viz. “clinical efficacy, safety, expense, convenience, associated pain and other short-and long term side effects” Two specific alternate hair removal methods for inclusion into education as specified by the student sample in this category was sugaring and threading. These have been highlighted in the guidelines in Chapter 6

and are new techniques over and above the existing temporary hair removal techniques currently being taught at UoT's viz. hot and strip waxing.

A little more than half of the respondents (54%) indicated that sugaring should be integrated. This technique has been proven to be beneficial in an industry context because it causes the regrowth of hair to be lighter, softer and less dense (Culp *et al.* 2010). Whilst it is gaining in popularity, its chemical simplicity warrants the attention of dermatologists whose advice is often sought by patients who have sensitive skins (Tannir and Leshin 2001). Students therefore need to be taught to collaborate with these specialists in the event of a need for such referrals in an industry context.

Threading showed a higher level of inclusion when compared with sugaring. Sixty-three percent of the respondents stated that threading should be integrated as a modality for temporary hair removal. Although threading has its origins in the East and is popular amongst Indian clientele, it is gaining popularity in the West as well (Culp *et al.* 2010). One possible reason is that threading is said to be more effective and longer-lasting than tweezing or waxing (McGraw 2007). Threading experts also say that this treatment is more hygienic than waxing and is suitable for clients who have sensitive skin due to prescription medication which can trigger other reactions that leave the treated area to be red, puffy or flaky (Culp *et al.* 2010). Currently, Somatology students have not been trained in terms of utilising this technique.

It is also important for Somatologists to position themselves to work collaboratively with Dermatologists. Dermatologists often refer their patients to Somatologists, especially when clients have sensitive skins, due to prescribed medications, specific skin conditions, and conditions relating to hair growth patterns.

#### **4.3.3.2 TANNING**

Twenty-one percent of the respondents indicated that spray tanning is another aspect warranting attention in education. This particular aspect may have been identified by the White and Coloured participants in the sample as this technique is more popular amongst these race groups in industry. Nevertheless, fake tanning has

transcended class boundaries and has become part of a flourishing aspect of business in the beauty sector (Spitznagel 2001). Hence all students from all race groups should become versatile in this technique to meet the needs of White and Coloured clients in industry. Spray tanning has been significantly shown to be more versatile as compared with conventional suntanning. Its advantages include affordability, easy application, convenience, and the fact that it provides an even tan without causing any long term damage to the skin (Chesonis 2011).

#### **4.3.3.3 FALSE EYELASHES**

Eyelash extensions have long been a lucrative part of the cosmetics industry. They were a huge favourite in the past of supermodels such as Twiggy in the 1960's and Kate Moss in the 1980's (Leap 2013). Like most things, the eyelash trend eventually faded in favour of the fresh-face natural look. In recent times there has been a shift, and "eyelash extensions are one of the biggest things in the beauty industry now" (Chris 2006: 1). Chris (2006) stated that eyes with these bountiful lashes look larger, deeper and somehow more mysterious. It is for this reason that it may possible that students identified this as a gap in education and have called for it to be part of training for industry. A little more than half of the respondents (53%) identified false eyelashes in their responses. With proper care by avoiding oil-based products, eye-rubbing, etc. eyelash extensions can last up to four to eight weeks if properly attached and if clients receive proper advice regarding their maintenance (Dehn 2010). Lost lashes can be replaced with new extensions on a monthly basis, to keep them looking full.

#### **4.3.3.4 MAKE-UP**

In contemporary society, where external beauty is equated with internal good, everyone wants to "paint a pretty picture of themselves" through make-up enhancements which make people look and feel good (Cohen 2009: 212). In relation to this aspect, 35% of the sample identified bridal make-up and 28% identified fantasy make-up as specific areas that needed to be included in preparing students for industry. Possible reasons for identifying these aspects are that Somatologists

would be able to contribute more to their earning potential if they had proper skill in professional bridal make-up. The latter is definitely important to brides in current times as they want to ensure that they look their very best and ensure that the wedding photographs are flattering.

Fantasy make-up was also identified. Fantasy make-up requires specific skill as it utilises bright colours and paints to create theatrical images, do-up models for fashion shows, and other dramatic screenings (Nordmann 2001). With the inclusion of these techniques which may easily blend into a specific module (as developed in Chapter 6), Somatologists can find themselves extending their services beyond the confines of salons, spas and clinics to the domains of television, theatre, and the movie industry as well. They can become more employable in the entertainment sector through stage and theatrical make-up for actors and presenters.

#### **4.3.3.5      ARTIFICIAL NAIL TIPS**

One of the most popular current trends in the beauty sector is nail artistry. This was evident in that the largest degree of support percentage (75%) was allocated by the sample to include this aspect specifically into Somatology education. Somatologists can offer clients the opportunity to wear beautifully cared-for nails in an endless variety and length (Milady 2001). Artificial nails can be applied by using acrylic and gel techniques. The only differentiation between these two techniques is chemical composition and the application technique (Nordmann 2001). Although this form of treatment is not supported by the Somatology profession due to the harmful chemicals involved in the application of artificial nails, the high percentages and general consensus of the respondents interrelate with the fact that it is in high demand amongst clients and industry. Somatologists can also freelance by offering this service as all equipment used is portable, as is evident in nail bars across shopping centres throughout the country.

#### **4.3.3.6      HENNA**

Henna, commonly known as mehndi, is the age-old art of dyeing patterns on skin (Bennet 2014). This magical art has been practiced for centuries in India, Africa, and

the Middle East, and now it has finally been accepted in the popular cultures of the West (Fabius 1998). Henna body art is most commonly used as a bridal adornment of the hands and feet for Hindu and various Middle Eastern occasions in South Asia, the Middle East and Africa (Cartwright-Jones 2006; Legge 2008).

Henna is a brown paste that is made from the henna plant and other ingredients, which is then squeezed from a cone-shaped tube or bottle onto the skin. When the paste dries, it crackles away leaving a reddish-brown stain that can last for weeks (Bennet 2014). Twenty-one percent of the sample indicated that Henna should be included. Correlations can be drawn with the percentage of Indian participants in the study (14.1 %) who obviously would favour learning this technique in preparation for serving Indian clientele in industry. The slightly greater percentage of those arguing for this technique over and above the 14 %, may emanate from Indian clients who may have requested Henna art whilst having other treatments done from the other racial groups in the sample. This was interesting and may also possibly indicate that other race groups may have requested this as well. Open-ended data reflected that Henna was commonly used as a substitute for nail polish amongst women in the Muslim community for cultural reasons. Should this type of artistry be included in professional preparation, Somatology students may be better prepared to offer this as part of a complete bridal package for Indian women in particular.

#### **4.3.3.7      MESSAGE THERAPY**

Massage can be described as a scientific method of manipulating the body tissues by touch (Scott and Harrison 2006). Through a diversity of approaches and applications, it is increasing in popularity with clients as it induces benefits such as relaxation, feelings of wellbeing, improved blood and lymphatic circulation, reduction in anxiety and pain and faster healing (Willison 2006; Smith, Sullivan and Baxter 2010). The sample identified three facets that require inclusion into Somatology education as being Indian head massage, lymphatic drainage massage and sports massage. These are discussed further below but have been interwoven into the new guidelines reflected in Chapter 6 of this dissertation.



Indian head massage is becoming increasingly popular particularly in the corporate environment, as it can be considered to be a quick and easy form of a 'relaxation fix' (McDonald 2006). Thirty-five percent of the respondents indicated interest within this form of therapy. Indian head massage is traditionally referred to as 'Champissage', which translates to 'head' in Hindi (Beckmann and Quesne 2005: 221). The head is generally home to stressors which presents symptoms such as tension headaches, teeth grinding, jaw pain, and sore eyes. Indian head massage can alleviate these symptoms as "the nerves travel up and down the spinal cord to and from our brain, so the head is a key place to focus when managing stress" (McDonald 2006: 21). Indian head massage involves techniques that work the scalp, face, neck and shoulders for a duration of 30 minutes using the fingers to induce relaxation (Tucker 2008). Somatologists can offer this treatment as a mobile service to people in an office environment where business people are stressed and hard pressed for time.

Lymphatic drainage massage has been hailed as the ultimate detox treatment. It is a rhythmic and propelling massage technique that arouses the lymphatic system, which targets the network of vessels between body tissues and organs that eliminate toxins from the body which in-turn boosts immune system (Woods 2006). Twenty-one percent of the sample identified this form of massage. It was traditionally used to help reduce lymphoedema, which is caused by swelling or damage to lymph nodes, when there is surgery or radiotherapy (Weil 2009). Somatologists can position themselves as assistants to medical practitioners in pre- and post-surgeries to promote the holistic and general wellbeing of their client through offering this type of massage.

The last form of massage identified as being important for consideration in education was sports massage, as 57% of the sample expressed that it was essential to incorporate this modality into contemporary teaching. This form of massage was highlighted as being more popular than the other forms of massages identified for integration viz. Indian head massage (35%) and Lymph drainage massage (21%). With more and more people taking part in sport at all levels, there is an increasing demand for treatment from masseurs and other therapists for injury or the fatigue that follows intensive training (Hoekstra 2008). According to Jooste, Khumalo and

Maritz (2013), sportsmen are increasingly visiting Somatology clinics for massages prior to an aerobic sports event. They further stated that sports massage brings about psychological, physical, and spiritual effects during and after participation in an aerobic sports event. Students may have identified this as an important need, as their community service project as part of experiential learning is often undertaken at sporting events which includes athletics, canoeing and cycling. Through continual participation in these sporting events, clients may become more aware that Somatologists are proficient in this type of treatment and hence it is critical that education creates opportunities for this kind of preparedness. Specific areas are highlighted in Chapter 6.

#### **4.3.3.8 FACIAL THERAPY**

Strausfogel (2010) said that facial therapy has become a necessity amongst modern men and women as part of a proactive approach to skin care. Skin treatments are listed as one of the most common treatments performed by Somatologists (Foulston, Major and Wynne 2007). Skincare technology has moved forward in leaps and bounds over the last few years to more specialised cosmetic procedures (Marlowe 2009). Some of these specialised treatments that need to be included in education as identified by the sample are detailed below.

Eleven percent of the sample specifically identified chemical peeling. Chemical peeling involves the application of a chemical exfoliant to impair the dermis and epidermis for the removal of superficial lesions with the aim to improve the texture of the skin (Mendelsohn 2002). The explosion of interest in chemical peeling on the part of cosmetic surgeons has paralleled the general public's interest in acquiring a youthful appearance through the rehabilitation of the skin (Monheit 2001). It is therefore important that education include this aspect as part of training.

The technique of microdermabrasion was first developed in Italy in 1985, and has evolved to become one of the most popular forms of superficial resurfacing with over 36 models currently on the market (Grimes, 2005). Twenty-two percent of the sample stated that lasers should be incorporated in education. Microdermabrasion has been advocated as a treatment for superficial acne scars, post inflammatory

hyperpigmentation and photo aging (fine lines and open pores), stretch marks. It is also claimed to improve mild acne and scars due to other causes (Savardekar 2007; Spencer 2005).

The use of lasers for hair removal is growing dramatically in the marketplace as a facial aesthetic procedure that is requested predominantly by women (Kulkin and Flash 2010). This form of advanced facial therapy received the support of 28% of the sample for inclusion, which was the highest percentage amongst the other facial therapies listed viz. chemical peeling (11%) and microdermabrasion (22%). Since laser hair removal is much faster and less expensive than electrolysis (Mirabile and Ellis 2002) it is more suitable for clients who have a low pain threshold. Laser hair removal is supported by the theory behind it which is called 'selective photothermolysis'. This means that light energy can selectively target a certain object (chromophore) in the body and destroy the hair follicle by using heat (Mirabile and Ellis 2002: 42). With proper patient screening and adequate professional preparedness, Somatologists can perform hair laser removal within the confines of their clinics. The benefits of using this machine is that it is a safe, effective, and satisfying alternative for depilation as compared with waxing, which is usually painful (Wanner 2005).

The above findings reconfirm that facial skin rejuvenation continues to be a popular nonsurgical outpatient procedure which is performed by many dermatologists, skin therapists and facial plastic surgeons (Mendelsohn 2002). Somatologists will find themselves more employable in industry if these treatments are part of their professional training.

#### **4.3.3.9 SPA BODY THERAPY**

Spa therapy includes the holistic treatment of the mind, body and spirit which incorporates a full range of water and thermal experiences combined with a variety of treatments (Scott and Harrison 2006). It fits well within the theoretical framework of Duke Integrative Medicines Wheel of Health outlined in Chapter one.

In terms of spa therapies, 32% of students expressed the need for the inclusion of exfoliation whilst 38% supported the need for education to include body wraps.

Exfoliation is derived from aromatic infused bath salts, which leaves the skin feeling smooth and silky whilst body wraps aim to detoxify and eliminate toxins from the body (Harding 2006).

These body exfoliations and wraps are usually used in conjunction with hydrotherapy in a spa context. It was unsurprising to find that 64% of the sample supported the inclusion of hydrotherapy into education. Hydrotherapy stimulates the body by improve circulation which leaves the client feeling energised and invigorated (Harding 2006). The varied types of hydrotherapy which stimulate circulation include: Kneipp therapy (alternate use of hot and cold water); Caldarium's (steam bath); as well as Jacuzzi's and Vichy showers which incorporate the use of pressurised water (Scott and Harrison 2006). These aforementioned specific treatment modalities should be the basis of a module on hydrotherapy in Somatology education.

#### **4.4 SECTION 2: SAMPLE 2 - IN-DEPTH INTERVIEWS WITH SOMATOLOGY UoT ACADEMICS**

Interviews were conducted with ten Somatology academics from various UoT's in South Africa. As part of the inclusion criteria all educators interviewed were employed on a permanent basis. Interviews were approximately 40 minutes to an hour long. Prior to the interview, participants were given the opportunity to view the interview schedule in order for them to gain familiarity with the questions in advance. This proved to be useful during the interview as participants had the opportunity to reflect on potential answers prior to the interview.

Through the use of qualitative data analysis procedures the main themes were generated from the data after each interview was transcribed. Thematic analysis enabled these broader themes to be further reduced to sub-themes in respect of each of the questions asked. Each of the questions used on the interview schedule was used as categories to identify the broad themes. Table 10 highlights the key questions on the interview schedule and the broad themes generated from the data analysed.

**TABLE 10: KEY QUESTIONS, THEMES AND SUB-THEMES IDENTIFIED FROM INTERVIEWS WITH UOT ACADEMICS**

Key Questions		Themes
1.	Briefly describe the development of the Somatology programme at your UOT.	<b><u>A: Growth and progression:</u></b> <ol style="list-style-type: none"> <li>I. Progress of qualification (N. Dip to D. Tech).</li> <li>II. Re-curriculation to align training with the needs of industry.</li> </ol>
2.	What are the current gaps in the Somatology curriculum?	<b><u>B: Integration of education issues:</u></b> <ol style="list-style-type: none"> <li>I. Focus on more holistic therapies.</li> <li>II. Improvement of retail skills.</li> <li>III. Promotion of scientific based research therapies.</li> </ol>
3.	What new aspects do you think needs to be built into your programme?	<b><u>C: Aspects requiring inclusion:</u></b> <ol style="list-style-type: none"> <li>I. Traditional therapies viz. threading and sugaring; modern therapies viz. lasers.</li> <li>II. Socialisation of medical aesthetics practices.</li> <li>III. Retail skills and entrepreneurship.</li> </ol>
4.	What further skills/practical training needs to be implemented to better prepare students for the workplace?	<b><u>D: Identification of areas that will prepare students for the workplace:</u></b> <ol style="list-style-type: none"> <li>I. Enhancements of retail, professional and communication skills.</li> <li>II. Inception of industry based experiential learning.</li> <li>III. Inclusion of spa therapy in education.</li> </ol>
5.	What are your views with regard to whether the current somatology education programme is aligned with the needs of industry?	<b><u>E: Aligning Somatology education with industry needs:</u></b> <ol style="list-style-type: none"> <li>I. Contemporary approaches to identify and include therapies, treatments, product knowledge and international trends.</li> <li>II. Strengthening of massage skills in theory and practice.</li> <li>III. Revisiting the focus of post-graduate qualifications to include contemporary industry trends.</li> </ol>
6.	What are the advantages of the Somatology profession being affiliated with a statutory body?	<b><u>F: A Statutory board will enable student and public protection.</u></b>
7.	Briefly describe what you think the UoT's need to do to enable professionalisation of the Somatology field?	<b><u>G: Potential concepts that will enable professionalisation:</u></b> <ol style="list-style-type: none"> <li>I. Collaboration of UoT academics.</li> <li>II. Academic participation in scientific based research.</li> <li>III. Integration of research methodology at undergraduate level.</li> </ol>

Related questions and discussions follow below.

**Question 1: *Briefly describe the development of the Somatology programme at your UoT.***

*“Previously the whole programme was known as a Technical college and then changed to a Technikon... now from a two year programme and then after that they built on a three year course and now it has gone from B-tech to D-Tech” [UoT1 A1]*

*“I believe that when we work on aspects of the curriculum you are working on curriculum development on a micro and macro level” [UoT2 A1]*

*“For us it means working to meet the needs of both our diploma and postgraduate levels” [UoT3 A1]*

*“The articulation from a National Diploma to B-tech to Masters to D-tech... We all should participate and engage in this process” [UoT3 A2]*

*“I think the trend for us is to move toward including technology advancements and incorporate the needs and change of industry” [UoT4 A1]*

*“We all are working together towards the new curriculum process, We are not sure when it will be take place but I think it will be around 2015 or 2016” [UoT5 A1]*

The above statements reflect not only the development of the Somatology qualification but also the progression of the qualification within the context of its growth within a Technical College, then a Technikon, to a University of Technology. The theme of growth and progression is reflected not only within the Somatology qualification that has progressed from a Diploma to it being offered at a Doctoral level, but also in the dynamic context of the evolution of the University of Technology. The focus on technological advancement in the field of Somatology and the need to engage stakeholders, both students and staff, in the re-curriculation process mirrors the research process of this study. The data from academics speaks to the need for new knowledge not only at the National Diploma level but

also post graduate levels, and the need to ensure that the needs of the beauty industry are met in this process. Whilst the guidelines in Chapter 6 speak to the current National Diploma with the re-curriculation drive, these should become areas for integration in the Degree and within a coursework Master's programme.

## **Question 2: What are the current gaps in the Somatology curriculum?**

*"I feel a better way needs to be structured to meet output needs of industry on a national and international level" [UOT1 A1]*

*"It's not so much in what we teach but how we teach it, to make students see how to integrating everything they learn like by adapting all the treatments to treat clients holistically rather than in isolation" [UOT2 A2]*

*"We have meetings with our advisory board members, I think those meeting clearly identify gaps where it shows that our students struggle with retail skills... I feel that our curriculum doesn't cater for this" [UOT3 A1]*

*"For me it will be research skills, I think students lack this skill especially those that want to pursue b-tech, one should prepare them at an undergraduate level, and also the integration of subjects rather than it being done in isolation" [UOT4 A1]*

*"We all should all have the same syllabus at our institutions as it will easier for students to go to other...I mean like transfer to other UoT's if an emergency arises" [UOT5 P2]*

Data received in relation to the current gaps in the Somatology curriculum speaks to the need for education to integrate issues that interface with the beauty industry at both a national and international level. There also appears to be a stronger focus on holistic treatments as opposed to aesthetically-based treatments, e.g. massage therapies and hydrotherapy. This fits well within the context of Duke's Model which has been used as a framework to guide recommendations made in Chapter 5 and 6.

This data supports findings made from the student sample which indicates the need to focus on more holistic therapies in Somatology education. Holistic treatments also extend to aromatherapy and reflexology.

The need to learn retail skills was also emphasised and reflects the need to include entrepreneurship in education. Retailing serves as an important function in the Somatology field. Businesses in the health and beauty sector ascribe to the philosophy that retail sales should account for at least 30% or more of the treatment profit (Angelo 2008). The focus on research by academics, although not supported by the student sample, is important in contributing to documenting the efficacy of various treatments and to entrenching Somatology practice as rooted in a scientific base. This is particularly crucial for the professionalisation of the field. The idea of a synergised curriculum across all UoT's is good, and speaks to the need to incorporate best practice approaches and theoretical knowledge into one indigenous course for the South African context.

### **Question 3: *What new aspects do you think needs to be built into your programme?***

*“Medical aspects definitely needs to be incorporated in the current curricula together with the needs of industry demands like the old fashioned treatments like threading and sugaring and so on... which are not in the curriculum but are still practiced out there” [UOT1 A1]*

*“We need the latest technology available out there, We need to know these things so our students can benefit from employment when they are done with us” [UOT2 A1]*

*“Issues of medical aesthetics is new career path that Somatologists need to integrate and also include research methods into 3<sup>rd</sup> year as it is not in the curriculum at present” [UOT2 A2]*



*“We need to encourage our students on the value of Masters Programme etc. and don’t see it as something scary” [UOT3 A1]*

*“Embedding research at an undergraduate level and also bring in those modern therapies...We also need more research done in aspects of the somatology curriculum” [UOT3 A1]*

*“We also need to look at existing therapies in industry beside the medical aesthetics components such as threading, artificial nails more massage therapies and so on...” [UOT4 A2]*

*“Students often complain about nail courses not being done here as we only do the basic manicure treatments, which costs them more.. I think we should look at courses like these as it will make them money” [UOT5 A1]*

*“Lasers definitely need to be incorporated with the facial aspect of the curriculum I know from being in the industry there is a great need for our students assisting in fields of this sort” [UOT5 A2]*

Data from this section resonates with, and supports, findings made from the student sample regarding specific areas warranting attention in Somatology education. A comparison between Table 9 and the above data clearly indicates synergy between the student and staff samples regarding gaps in teaching specific theoretical knowledge. Sugaring and threading are both ancient practices that continue to be used in contemporary times. Given its widespread popularity amongst current clientele, it is vital that educators revisit current curricula and seek the services of skilled therapists to teach students these new methodologies.

The use of laser was supported by both academics and the student sample and can be attributed to its growing popularity in the effective treatment of hyperpigmentation and in hair removal. It is possible that because of the high cost of purchasing such equipment this approach has not been considered in education. It is suggested that the theoretical benefits and indications for its use be taught; where Universities cannot purchase such sophisticated equipment, students should be given the opportunity to practise by arranging practical placements with qualified

dermatologists and other medical aestheticians. There was a strong voice regarding the need to prepare Somatology students to run practices as viable businesses. Retail skills and entrepreneurship again is an important aspect for education. The need for the interconnectedness with industry and current clientele needs was also reflected in the data. For example, there is currently a move from basic pedicures to intricate nail artistry which is taking the industry by storm. Students therefore need to be empowered with both theoretical and practical knowledge to be able to cater for such changing needs.

**Question 4: *What further skills/practical training needs to be implemented to better prepare students for the workplace?***

*“A bit of business skills beside the treatments that they know, how to work as a manager in order to manage a business will help them later on” [UOT1 P1]*

*“We also need to incorporate spa therapy were we bring spa into the national diploma as many new salon are converting into spas nowadays” [UOT1 P2]*

*“High level of retail skills and promote “soft skill” communications as we have so many students from come from different cultures and students are not familiar with basic communication skills” [UOT2 P1]*

*“The need to determine their profile and act like a professional and be responsible for their actions, this will help if they have industry experience. I feel that those that have worked in industry have a mature level approach on the things that they do... ” [UOT3 P1]*

*“Our students lack general knowledge skills as they don’t know what is happening out there as they don’t read newspapers and want to take interest.... Placing them in industry will definitely overcome this process” [UOT3 P2]*

*“Experiential learning must be done outside campus as I feel that they are comforted when it is done internally, they don’t take responsibility for their actions” [UOT4 P2]*

*“I think we should let them work in salons and spas as part of their WIL [Work integrated learning] they will know for themselves about how and what is done out there and give feedback each other and let them know it is not easy out there as it is in clinic” [UOT5 P2]*

The data received regarding practical training further supports the areas identified under theoretical components. Although not identified by the students, most academics have argued about the need for practical training to occur beyond the realm of the University training clinic and into actual spas, salons and dermatology practices. Academics felt that the clinic training ground at universities does not mirror the real life industry set-up, and prevents students from learning both retail skills as well as specialised treatments that involve laser technology. Without exposure to this, students will be somewhat unprepared to meet industry challenges after university. There was a strong call again for retail skills together with professionalism and communication as essential to making business ventures work. These must be interwoven into specific modules in the new Somatology degree offering across all UoTs.

The ability to manage and offer services as practiced by Spas was also articulated by the academic sample. Whilst this does get some attention in education the need for heightened attention to Spa related Somatology services appears to be an important consideration in education. Spas undoubtedly are the current trend in industry, and with high levels of corporate stress many executives as well as other people utilise Spas for a range of treatments. Whilst students may be trained to perform some of the Spa related treatments, the actual process of managing such a venture may prove challenging given that they are not exposed to this in the University based training clinics. It is also important that educators take cognisance of global trends, as many students need preparation for the international arena as this is where they will seek employment after graduating. An awareness of international industry needs is thus crucial.

**Question 5: *What are your views with regard to whether the current somatology education programme is aligned with the needs of industry?***

*“There are some challenges I can tell you now that industry are developing much more quicker, they are always up with the latest trends and adds value to us so we need to be empowered with them when something is launched we need to know about it” [UOT1 A1]*

*“For me there are much more massage types out there compared to what we teach our learners with need to integrate this so our students can be unique as compared to the other beauty school providers” [UOT1 A2]*

*“We need to prepare our students for the needs of industry and let them know that they also can form us about trends out there so we can incorporate it in our teachings”. [UOT2 A2]*

*“Yes we have this new trend were we have an open department and we are not shy to ask our students what’s happening in the work place so we have an understanding of how to incorporate it into our curriculum” [UOT3 A1]*

*“At our department we have to be abreast with industry and for this reason we use our advisory board as a platform and look at what it expects” [UOT4 A1]*

*“I don’t think we are aligned as the curriculum remained the same from the time I was a student, hopefully this re-curriculation process will cater for all the new and traditional trend that have not been incorporated into the curriculum” [UOT5 A1]*

Most educators in the sample believed that the current Somatology profession was not aligned with the needs of industry, and that industry was moving at a more rapid pace when compared with education. Educators reinforced the need for traditional therapies and contemporary innovative approaches to be brought into teaching and education. This disjuncture between industry and education is an on-going dynamic process and educators will need to shift educational content regularly to ensure that

they keep abreast with different products, treatments and international trends. The fact that students are not versatile in all massage therapies being offered in practice was again voiced, and it is critical that education and practical training be revisited to ensure full exposure to the entire realm of therapeutic and other Somatology interventions.

Another important consideration is that Universities of Technology begin to revisit the focus of post-graduate qualifications and perhaps begin to offer a coursework Masters that extends the current knowledge base to include contemporary industry trends. Given that most graduates will join industry straight after completing the National Diploma, there is a need for educators to reflect revise and re-work current content to ensure that education and industry are not at a disjuncture from each other.

**Question 6: *What are the advantages of the Somatology profession being affiliated with a statutory body?***

*“The main thing is protection of the Somatologist and public” [UOT1 A2]*

*“Presently students don’t know where they belong” [UOT2 A1]*

*“It is major, to why we need to affiliate ourselves with a professional body as the profession will be more recognised....this will elevate the profession and will give our students a sense of pride and motivation, we will also be able to claim from medical aid funds. We will be more protected as well as the public.” [UOT3 A1]*

*“We as professionals will be liable to a professional body, it will make our students understand the implications of their actions should standards not be met” [UOT3 A1]*

*“Students will also know the penalties involved for bad or incorrect practices if they go outside their profession” [UOT3 A2]*

*“It will give us one voice where people will take us more seriously” [UOT4 A2]*

*“The main advantage will be regulation and protection to our students were the public will recognise us” [UOT5 A2]*

The need for professionalisation and registration with a professional body was also reinforced by the academic sample. Professional bodies are basically set up to enable legislation amongst profession (Home Affairs Bureau 2003). Educators urged that this was necessary for the protection of both students and the public. Given that a large number of treatments include body treatments such as massage, as well as invasive therapies that may cause potential harm, it is critical that registration be expedited to ensure that situations are prevented such that client dignity is not violated and potential harm may be prevented. This is especially important in cases related to peels and laser where great harm can occur if students are not adequately prepared. Given that most training does not focus on practices seen in industry, it warrants that professionalisation be expedited to protect vulnerable clientele.

**Question 7: Briefly describe what you think the UoT's need to do to enable professionalisation of the Somatology field?**

*“Being in contact with one another as often as possible, share the knowledge and become research oriented team effort will help” [UOT1 A2]*

*“I think to let us be a cut above the rest as we a not like normal private institutions, I feel we have the scientific edge to be on a higher level” [UOT1A1]*

*“Hmm..we struggle daily with this, I guess we need to lead by example and they will follow. The way we educate our students and the view of the public will also help, especially if we want to be affiliated with a professional body” [UOT2 A1]*

*“We must work together with one vision... for the past couple of years we have achieved so much together and we must learn to promote research with the essence of Somatology” [UOT3 A1]*

*“People must realise we don’t just paint nails and face, and by doing research on a post graduate level this can change things with a huge professional capacity” [UOT3 A2]*

*“We need to be linked or have representation at council meetings or associations that builds strong links with industry and other UoT’s and keep maintaining those links, this will hopefully put us in the arena for professionalization” [UOT4 A1]*

*“Working together as UoT’s to raise our profile you know... With strong linkages and collaborations via quality education and positive marketing tools” [UOT4 A2]*

What emerged strongly from the data was that there was a need for strong collaboration amongst academics to drive professionalisation in a concerted way. A further strong theme was the need for research and post graduate research so that the profession can be seen to grow from a scientific base. The sample also encouraged academics across UoT’s to participate in research which can reflect industry needs and how to prepare graduates for industry through research. Research as a module then needs to be integrated across all levels of the new Degree Programme to prepare students to undertake investigations that will sharpen the lens of education through understanding what clients and industry require. Currently research is only offered at the B.Tech level, and given the small scale of such investigations it is critical that research methodology be introduced earlier. The actual research studies can then pitched be at a more in-depth level and can contribute to knowledge production and inform better practice.

#### **4.5 SECTION 3: SAMPLE 3 - FOCUS GROUP DISCUSSIONS WITH SOMATOLOGY ADVISORY BOARD MEMBERS (DUT)**

A focus group discussion was held at the Durban University of Technology. Ten Somatology advisory board members from DUT were invited to the focus group. This was done through invitations via e-mail and telephonic requests. It was possible that due to work and personal commitments only six advisory board members were present. It was a pre-requisite that participants had to have been present at two or more previously-held advisory board meetings. The analysis of the focus group discussions was done in congruency with the analysis of the in-depth interviews with the academics. Table 11 on the following page reveals the broad themes and sub-themes that were highlighted from the sample in review.



**TABLE 11: KEY QUESTIONS, THEMES AND SUB-THEMES IDENTIFIED FROM  
FOCUS GROUP DISCUSSIONS WITH SOMATOLOGY ADVISORY BOARD  
MEMBERS (DUT)**

Key Questions		Themes
1.	What are your views about the current Somatology programme at DUT?	<b><u>A: There are gaps present in the current Somatology programme:</u></b> <ol style="list-style-type: none"> <li>Feedback from students can assist academics in forming a blue-print for curricula development.</li> <li>Students will gain a mature outlook for the strengthening of business skills e.g. marketing, retail and communication skills.</li> </ol>
2.	What new subjects can potentially be built into Somatology education?	<b><u>B: Inclusion of specific content:</u></b> <ol style="list-style-type: none"> <li>Spa therapy.</li> <li>Professionalism and communication skills.</li> </ol>
3.	Elaborate on the specific knowledge that should be built into these subjects.	<b><u>C: Inclusion of refresher modules that will cover therapies done from first year to third year levels.</u></b>
4.	What further skills training can be implemented to better prepare graduates for the workplace?	<b><u>D: Improvement of teaching methodologies to enhance practical skills</u></b> <ol style="list-style-type: none"> <li>Incorporate industry based experiential training.</li> </ol>
5.	How can the curriculum be developed in relation to the changes in industry?	<b><u>E: Bridging gaps between Somatology education and industry developments:</u></b> <ol style="list-style-type: none"> <li>Incorporation of the latest technology.</li> <li>Extension of product use, knowledge and its adaptability to individual clients.</li> <li>Enhancement of practical massage skills.</li> </ol>
6.	How can the Advisory Board continue to enable the development of the programme in its role?	<b><u>F: Partnership between academics and advisory board for transition graduates for the work place.</u></b>

Related questions and discussions follow below.

**Question 1: *What are your views about the current Somatology programme at DUT?***

*“I think that DUT students excel far more than other private colleges... I only employ DUT students at my spa....so for that I am pleased with Somatology students thus far and they get they give quality work at the end of the day” P1*

*“I think the calibre of the education is very good...but I think the work experience and how to integrate everything like all of that they have learnt and going into the reality of the working world, there is a slight problem there” P2*

*“They need to go out and get that work experience...you can only train them so much but the rest is up to them to handle, and the biggest thing for me is the retail skills... This is huge...If a therapist cannot sell she will never be successful in the business world, she will lose money and loose interest in the profession.” P3*

*“If you look at the cost of the Somatology Diploma whether it is at a private school or DUT, parents will look at the cost of what a therapist can earn, and I feel that the students don't seem to be earning to the full potential.. I feel that they are just happy not to sell, they are just not confident” P1*

*“I think a session and a practical should and challenge them who retails the most we can provide prizes from industry on our behalf” P2*

*“For me, from my perspective students lack the level of knowledge and understanding with the inability to relay information back to me and clients from what they learnt... like poor communication skills and I think this will allow them to be better therapist... although students come from different backgrounds at first year level they should know how to verbalise detail in 3<sup>d</sup> year” P5*

*“It's across the board it is a big thing, but the girls that do their training at your salon would probably benefit maybe a little .... Were you seem to protect them in clinics within the program” P4*

*“They are also not proactive, when clients come in they wait for the client to ask them something and then only will they assist the person and I can see that person will only be earning 3000 to 4000 rand commission a month.. I have a lady working for me from overseas and she was in another business but has now moved to Somatology, were she is making 18-20 000 commission a month... It's so easy to boost their salaries otherwise loose interest and they will leave industry. P6*

The data reflects common themes echoed by the academics although not from the student sample. Retail skills and managing a Somatology business underpinned by proactive marketing and communication skills came through. Merchandising and retailing are important functions, with many ascribing to the philosophy that retail sales should account for at least 30% or more of the salons profits (Angelo, 2008). Again, like the academics, members of industry felt that the University training ground lacked the ability to prepare students in all these areas for industry based work. Hence it is critical that educators give strong consideration to ensuring the extension of the learning ground from the University clinic to Somatology practices in industry.

### **Question 2: *What new subjects can potentially be built into Somatology education?***

*“I think awareness of what there is in the market like sales skills and confidence... Like team building, being amongst motivational speakers to enhance confidence levels” P3*

*“Broaden their horizons look at professionalism consider this to be a module on its own... on how to meet and greet how to look the part with this knowledge they will take sort of thing seriously” P4*

*“Spa therapy it now the in thing, Somatology curriculum should cater for this... look at utilizing saunas steam baths and other services and market them with promotions” P1*

There was a definite synergy in terms of new subjects identified across all three samples. This was in relation to spa therapies, which is a booming trade in Somatology practice. Communication and professionalism along with marketing skills are definite new areas that require more intensity in undergraduate training.

**Question 3: *Elaborate on the specific knowledge that should be built into these subjects.***

*“You guys must give them incentives to work harder” P1*

*“How to supplement and incorporate further skills like interviewing businesses and salons so they know what they need to know when they out there...” P6*

*“They also seem to forget the basics from first year to third year...” P2*

*“They are so quiet and reserved, Practical refresher of modules, with more visual aids and using innovative ways” P3*

Although the sample did not identify specific content many seem to indicate the need for content and techniques to be reinforced, as it would appear that once graduates enter industry they may have forgotten important skills and knowledge for basic therapies. Hence the need for refresher modules or a vertical progression of knowledge taught from first year to third year, as opposed to teaching subjects in an isolated way. Again the notion of a lack of preparation for real industry came through in the data, and can be linked to other findings that the University clinic does not groom students to be confident practitioners in industry.

**Question 4: *What further skills training can be implemented to better prepare graduates for the workplace?***

*“I think this question interrelates with the previous question... for me... I feel more practice and training should allow them to be better therapist...” P1*

*“Yes... Definitely the department should enforce more case studies and log books to track treatments done... then they will be forced to master the skill...” P6*

*“Waxing skills and retail skills are the main thing for me I guess, more practice will definitely enhance their skill...” P4*

*“Yet again I feel experiential training outside the Soma clinic will benefit these students as they will know what it feels to work under someone else and feel the pressure, this will initiate skill developments...” P3*

With regard to more skills the advisory board reiterated their concern that the University training ground was inadequate and seemed to continuously reiterate the need for experiential practice in industry. It would also appear that they felt more emphasis was needed on practical skills in beauty and wellness treatments, and that perhaps teaching should be more experientially driven so that students were better able to apply Somatology practice to real life situations. Hence teaching methodologies would need to be revisited as well.

#### **Question 5: *How can the curriculum be developed in relation to the changes in industry?***

*“All the new trends, I call this the quick fix generation, they got to be aware, you guys must invite the relevant people that market new equipment into your institution...They also offer free training if the equipment is purchased” P4*

*“You can give student credits for attending trainings outside DUT and incorporate a point system” P1*

*“DUT has been taking in the same product houses and training providers over and over...there are more providers out there that can enhance the students learning” P4*

*“I have therapists at my practice that have no strength when they do massage, they need to work on their strength abilities and get them stronger and prepare them for all the hard work they will be doing. They physical capabilities need to be improved and I’m sure this will enhance they treatment capabilities” P3*

*“Some of them have light pressure, tinkle and a stroke that’s and feathered the massage is very weak, and no firm pressure” P1*

*“Teach them how to balance and how to use the body weight” P6*

*“Log books for massage should be implemented. Case studies should also be done in first year massage, let them work on us and staff and we will give them the relevant feedback” P2*

Data from industry supports the notion that there is currently a huge disjuncture between education and industry in multiple ways. This can be reflected in that students have no knowledge of the latest beauty equipment. The Advisory Board has suggested that academics create opportunities for students to be exposed to new technology by inviting those who market such equipment for demonstrations, even where the university cannot purchase such equipment. The Advisory Board sample also pointed out that academics tended to support the same beauty products and called for greater exposure to diverse product houses, so that students were well aware of the entire spectrum of products on offer. South Africa is made of a diverse ethnic population with people from multiple income levels. It is critical that students learn and know about which products suit which populations best, and also be aware of the most cost effective brands related to different income groups. Beauty and wellness is not just the concern of the elite few but is important to men and women from all backgrounds.

With regard to massage therapy, it appears that students need to become more versatile in effectively utilising using this treatment methodology. Again, this appears to be more related to a lack of practical experience as opposed to knowing specific knowledge related to massage.

**Question 6: How can the Advisory Board continue to enable the development of the programme in its role?**

*“By doing exactly what’s done here, more research needs to be done in areas like this, maintain advisory board meetings and utilise information from there” P1*

*“If you guys need input from us we are willing to come in and support and chat to you guys” P2*

*“I can come in, in my time and offer some training on selling skills...They [Students] will benefit from this, so they know how it is handled out there” P3*

*“Book us in to evaluate students we are prepared to come in.... They can do treatments on us and we can give the staff feedback” P2*

The advisory board members supported the notion of research studies that incorporated the viewpoints of industry. The sample reiterated the need for more practical exposure for students to receive industry feedback and more exposure to Somatology techniques. The partnership between industry and education was reinforced and this type of collaboration is essential to ensuring well-prepared graduates.

#### **4.6 SECTION 4: PROGRAMME ANALYSIS OF SOMATOLOGY CURRICULA**

A programme analysis of content from Somatology curricula across all UoT’s was undertaken by accessing and analysing specific modules contained in the subject descriptors and learner guides of various subjects in Somatology. This was done through the support of academic staff from the following UoT’s: CUT, CPUT, DUT, TUT and UJ (n=5).

The process of this form of analysis was fundamental in identifying potential gaps across subjects across all UoT’s. It was also to get a better idea of what specific knowledge may be lacking, so as to be able to corroborate findings from the student

sample. Programme analysis of the subjects was undertaken with a view to obtaining information specific content from modules in the current curricula. The data obtained through this process is contained in the following section.

#### **4.6.1 SPECIFIC CONTENT AREA OF MODULES**

The specific module contents identified across the Somatology programmes are reflected in Table 12 on the following page. These specific contents were extracted from under subject names to form a thematic analysis. The frequencies are tabulated according to each institution to establish consistency levels.



**TABLE 12: FREQUENCY OF SPECIFIC MODULES WHICH APPEAR IN THE  
SOMATOLOGY CURRICULA AT UOT'S IN SOUTH AFRICA**

<b>No.</b>	<b>Specific module contents</b>	<b>Name of UoT</b>	<b>Frequency (%) (n=5)</b>
1.	Make-up (Basic).	DUT, CUT,CPUT,UJ,TUT	100% , n=5
2.	Manicure (Hand care).	DUT, CUT,CPUT,UJ,TUT	100% , n=5
3.	Pedicure (Foot care).	DUT, CUT,CPUT,UJ,TUT	100% , n=5
4.	Hot and cold waxing (Temporary hair removal).	DUT, CUT,CPUT,UJ,TUT	100% , n=5
5.	Facial therapy (Basic facial and décolleté treatments, hygiene, skin analysis, skin disorders).	DUT, CUT,CPUT,UJ,TUT	100% , n=5
6.	Advanced facial therapy (Sonophoresis, Iontophoresis, Desincrustation and Micro-current).	DUT, CUT,CPUT,UJ,TUT	100% , n=5
7.	External training (First aid and various industry product houses).	DUT, CUT,CPUT,UJ,TUT	100% , n=5
8.	Swedish Massage.	DUT, CUT,CPUT,UJ,TUT	100% , n=5
9.	Advanced Body Therapy (Body analysis and weight management, Gyrotonic vibrator, Galvanism and Faradism).	DUT, CUT,CPUT,UJ,TUT	100% , n=5
10.	Reflexology.	DUT, CUT,CPUT,UJ,TUT	100% , n=5
11.	Aromatherapy.	DUT, CUT,CPUT,UJ,TUT	100% , n=5
12.	Permanent hair removal (Blend).	DUT, CUT,CPUT,UJ,TUT	100% , n=5
13.	Advanced massage therapies (manual lymph drainage).	UJ	20% , n=1
14.	Micro-dermabrasion.	UJ	20% , n=1
15.	Spa Therapy.	UJ	20% , n=5
16.	Laser.	CPUT,TUT	40% , n=2

As is evident from above, all UoT's cover the similar main modules in relation to each other. This uniformity may be attributed to inter-institution collaboration in the development of curricula. Slight discrepancies were noted, however, with four of the modules in the Table 10 presented above. Two UoT's (CPUT, TUT) incorporated the use of Laser therapy where the other three UoT's did not (DUT, CUT, UJ). University of Johannesburg also covered a majority of the modules listed, but further included an additional three modules i.e. Advanced massage therapies, Spa therapy

and Diathermy. These gaps resonate with data from the three samples and a rationale for their inclusion in future training has been discussed in the context of the discussion of the three samples above.

## **4.7 CONCLUSION**

The analysis and interpretation of the four sources of data viz. survey questionnaires with students; in-Depth interview with academics; focus group discussions with Somatology advisory boards members(DUT) and a programme analysis of specific module content, revealed a triangulated response in satisfaction levels as well areas requiring strengthening.

The following two Chapters contain the conclusions and recommendations, together with broad guidelines for transforming current education and training to include new treatment modalities and industry based skills as identified by the three samples.

# CHAPTER FIVE

## FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

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***“Beauty fuels our souls and fills our hearts.***

***It inspires us to slow down, and yet do more.***

***Like an IV tube inserted directly into the vein, beauty feeds us...”***

**- Sarah Voldeng**

### **5.1 INTRODUCTION**

The main aim of the research study related to *“An analysis of the Somatology programme offered at South African Universities of Technology to determine whether it meets the needs of industry”*. Impending from the title, this chapter summarises the key findings made in the study and presents the recommendations and conclusions in relation to the primary objectives of the study.

The major findings and recommendations are hereof summarised within the context of the following four research objectives of the study:

#### **5.1.1 OBJECTIVE ONE: *TO EXPLORE THE VIEWS AND OPINIONS OF SOMATOLOGY EDUCATORS AND STUDENTS AT UoT’S IN SOUTH AFRICA, WITH REGARD TO THE CURRENT SOMATOLOGY EDUCATION PROGRAMME AND TO IDENTIFY AREAS REQUIRING STRENGTHENING.***

Although there was a general consensus of satisfaction within the student and academic samples there were still gaps identified to better prepare students for industry. Students from the different UoT’s identified a range of new areas warranting attention such as Aesthetics, Biotics, Spa Therapies etc. These new areas requiring integration into current education have been presented as part of

broad guidelines related to the areas identified holistically by the three samples in Chapter 6. Although Business Practice exists within the current curricula, the Advisory Board saw the need for more attention to professionalism, marketing and retail skills to better prepare students for industry. The need for registration with a Professional Body was also articulated by the academic sample and Advisory Board sample.

**5.1.2 OBJECTIVE TWO: *To ANALYSE THE COURSE COMPONENTS OF CURRENT SOMATOLOGY CURRICULA AT ALL UoT'S WITH A VIEW TO IDENTIFYING GAPS THAT WARRANT ATTENTION.***

Whilst in general most UoT's had similar modules in their curricula, there were still inconsistencies. Some UoT's incorporated more modern therapies into training and have the latest equipment to facilitate such training. Laser therapy and spa body therapies appeared to be the most significant gaps and can possibly be attributed to budget constraints in terms of certain UoT's not including them. These were the areas identified for integration into future training, and as suggested by the Advisory Board sample, students need to be trained in industry contexts where the latest equipment and therapies are implemented as opposed to the confines of the University training clinics.

**5.1.3 OBJECTIVE THREE: *To EXPLORE THE VIEWS OF MEMBERS OF THE SOMATOLOGY ADVISORY BOARD WITH REGARD TO WHAT FURTHER KNOWLEDGE AND SKILLS WERE REQUIRED BY GRADUATES, TO ENABLE THE NEEDS OF INDUSTRY.***

The Advisory board sample highlighted the huge disjuncture between industry and education and called for a greater collaboration between both entities in preparing students for industry. The need for academics to be aware of changing industry trends and to constantly interweave new beauty technologies and products into aspects of teaching was highlighted.

#### **5.1.4 OBJECTIVE FOUR: *TO PROVIDE RECOMMENDATIONS TO IMPROVE SOMATOLOGY EDUCATION AT UoT'S IN SOUTH AFRICA TO BETTER MEET THE NEEDS OF INDUSTRY.***

Three sources of data were used to inform how Somatology education can be improved. The student sample confirmed a need for more therapies to be incorporated into the current Somatology education at UoT's in South Africa. Although there is a niche market in the medical aesthetics platform, it is stagnant and needs greater recognition in education. This was also supported in Vosloo's (2009) study where it was found that only 39% of medical professionals referred patients to Somatology practitioners. This gap needs to be bridged so that Somatologists can work better with these professionals.

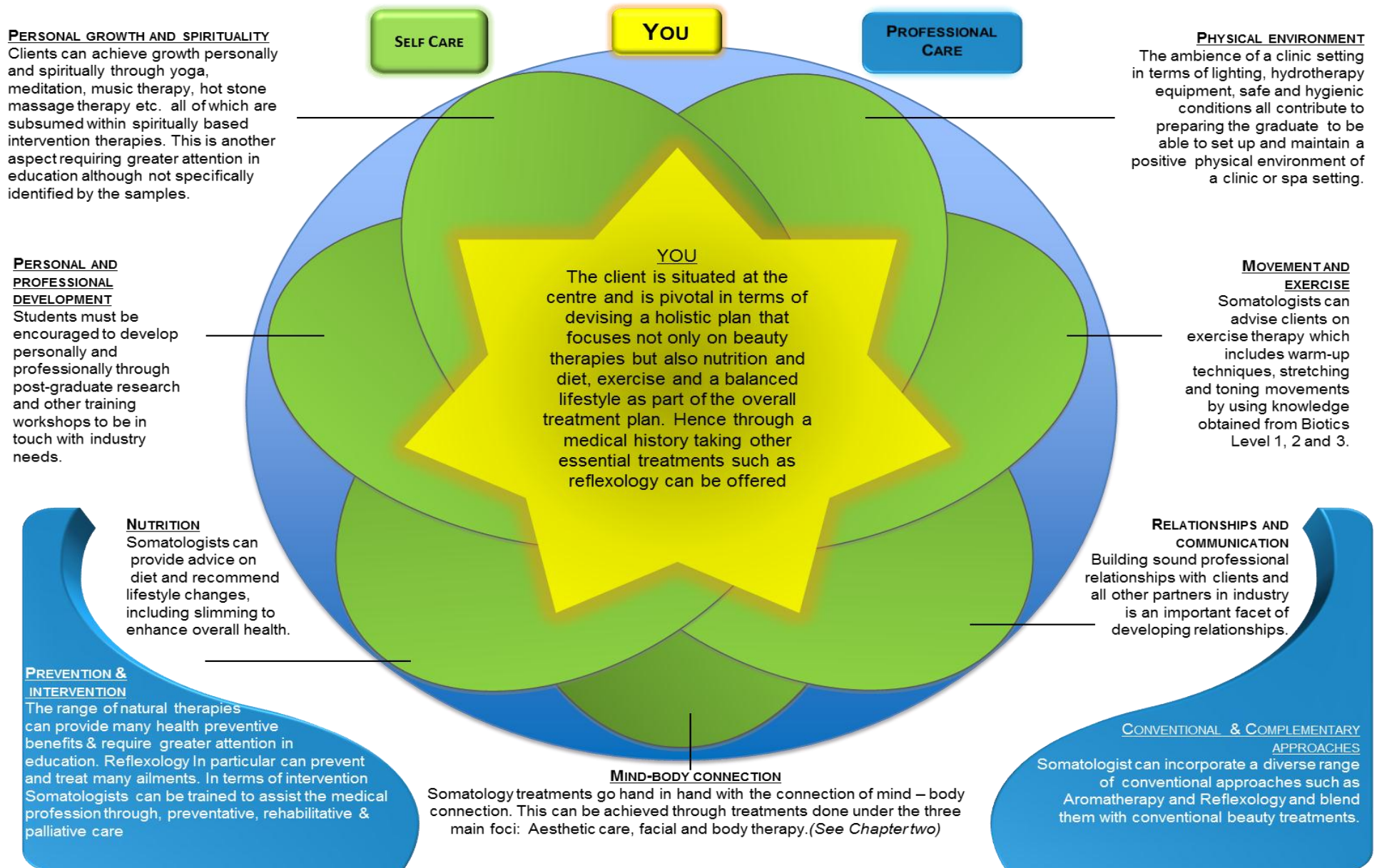
In the interim, graduates still need to attend to the traditional beauty sector's needs and demands. Hence, the need for education to address therapies such as artificial nails, eyelash extensions and other make-up trends are significant. Electrical treatments involving facial and body therapy should also be included, particularly the latest technology to increase employability of Somatologists amongst medical aesthetic practitioners. All these areas are elucidated in the broad education guidelines in Chapter 6.

There was a synergy in the data amongst UoT academics and Advisory Board members (DUT). Firstly an 'industry-based' experiential learning programme was strongly articulated by the sample so that students would be professionally prepared for industry. Secondly, there was a call for students to be better empowered to partner with other professionals in industry. This can include collaboration with medical practitioners such as Dermatologists, Plastic Surgeons and Podiatrists. It is recommended that these practitioners be brought onto advisory boards at all UoT's. This will expose these practitioners to the scope of practice of the Somatology profession and encourage stronger collaborations in practice. These new partnerships, together with inter-institutional UoT collaboration, can pave the way for a statutory professional body to be established. The need for professionalisation was supported.

Lastly, professionalism and work ethics should be re-invigorated in education so that graduates can function confidently and professionally. The programme analysis across UoT's suggested and reinforced the main educational gaps identified by the student and academic samples. This highlights the need for academics to constantly revisit teaching material and ensure that education and preparation for industry is a dynamic process. Although the new broad educational content is delineated in Chapter 6, the following section utilises the Duke Integrative Model, the theoretical framework of the study, to succinctly identify areas that holistically need attention in the undergraduate programme as per the data from all three samples in the study.

## **5.2 THE SOMATOLOGY PROFESSION WITHIN THE DUKE INTEGRATIVE MEDICINES' WHEEL OF HEALTH**

Clinical models continue to evolve and develop within existing frameworks to address overall healthcare systems and reform (Barker and Huber 2014). The Duke Integrative School of medicine developed the wheel of health which blends conventional medicine with natural, less invasive therapies such as massage therapies, dietary changes and mind-body connection techniques (Freudberg 2013). An evolving Somatology education possesses elements that should be allowed to interconnect all its facets in terms of preparing students for industry. The figure on the following page depicts this. The specific areas are further elaborated upon in Chapter 6.



**FIGURE 7: THE SOMATOLOGY PROFESSION WITHIN THE DUKE INTEGRATIVE MEDICINES' WHEEL OF HEALTH**

### **5.3 RECOMMENDATIONS FOR FUTURE STUDIES**

One of the most important recommendations is that educators nationally consider the broad content areas identified and work towards ensuring its integration within the context of the current re-curriculation drive.

The following future studies should be considered to further to develop Somatology practice and education:

- To investigate the specific needs of industry through a study with members of industry.
- To investigate the efficacy of various new laser and other technological advancements in the field of beauty.
- To investigate the benefits of various benefits such as Reflexology and Aromatherapy related to various medical conditions.
- To investigate the work preparedness of Somatology students based on experiential learning received at Universities of Technology.

### **5.4 SHORTCOMINGS**

Although the response rate of the student questionnaire was considered to be good (56.8%) and was sufficient for the purposes of generalisation, a better response rate could have shed more light on the gaps in education and identified a more wider breath of areas needing integration. The inclusion of the Somatology educators and advisory board members however closed this gap and enabled a comprehensive and holistic view of areas warranting attention, particularly preparing graduates in terms of practical skills for implementing therapies.

### **5.5 REFLECTION**

The current study was beneficial though in that it was a national study which included multiple samples with diverse viewpoints on how to strengthen education and practice. As a current staff member (DUT) and a qualified Somatologist with many years of industry based experience, the researcher has found that the study



was invaluable in further guiding what students needed for industry, and particularly what educators needed to do to ensure a better preparedness of the student to meet the diverse and changing needs of clientele. It is expected that the outcomes of this research will enhance the current Somatology qualification and pave the way for further empirical studies that will benefit education and practice.

# **CHAPTER SIX**

## **RECOMMENDED GUIDELINES TO STRENGTHEN SOMATOLOGY EDUCATION AT SOUTH AFRICAN UNIVERSITIES OF TECHNOLOGY TO MEET THE NEEDS OF INDUSTRY**

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## INTRODUCTION

These guidelines have been developed in relation to the findings of the study. The modules herein were developed through data gathered from students and educators throughout South Africa, as well as from members of the DUT Advisory Board. Findings also revealed that some content was being taught at one of the UoT's but was not being included laterally across all other UoT's, viz. lasers (intense pulse light), microdermabrasion, and lymphatic drainage massage. To ensure uniformity across the UoT's, the guidelines were compiled and categorised under the following four sections: Aesthetics, Body therapy, Facial therapy, and Spa body therapy. The modules within these categories were sub-classified as units. A total of twelve units were conceived and developed.

For each unit identified, a brief description is first specified. The guideline content within these units was further divided into theoretical and practical outcomes. The structuring of these guidelines into theoretical and practical components was done in relation to existing therapy modules covered in the curriculum. The practical issues are highlighted within these guidelines, due to the emphasis in the data gathered from educators and Advisory Board members to focus on practical skill proficiency as well. It must be noted that some of the contents within this chapter requires the use of costly machinery, especially units that fall under the facial therapy and spa body therapy sections. For the UoT's that do not have this equipment, this study can serve as the impetus for budgeting or requesting funds for the purchase of the equipment which will ultimately pioneer the introduction of these new areas of teaching.

The modules developed within this chapter constitute broad guidelines and are not intended to be prescriptive. They allow for the development of further content information under the headings provided within each unit. The headings within these units merely highlight what content must be compiled. To the researcher's knowledge some of the units may not be suitable in the undergraduate level (N. Dip) due to the knowledge, expertise and skill required. These units may be developed as part of the B.Tech or adopted at M.Tech level as part of post graduate degree offering. The need for practitioners in industry to improve knowledge as well as

research to develop Somatology as a field is critical. The broad guidelines are also intended as a framework to assist Somatology academics in the curriculum development process.

## **SECTION A:        AESTHETICS**

- 1.    *Unit 1:    Advanced temporary hair removal techniques***
  - a)    *Sugaring***
  - b)    *Threading***
  
- 2.    *Unit 2:    Spray tanning***
  
- 3.    *Unit 3:    Make- Up***
  - a)    *Bridal***
  - b)    *Fantasy***
  
- 4.    *Unit 4:    Henna temporary tattooing***
  
- 5.    *Unit 5:    Eyelash extensions/perming***
  
- 6.    *Unit 6:    Artificial nails tips***

## Unit 1:     **Advanced temporary hair removal techniques**

### ***Description of Unit 1:***

- a) **Sugaring:** Application of a substance based on melted sugar. The paste is applied by a gloved hand on the skin, which then moulds around the hair shaft to extract unwanted hair.
- b) **Threading:** Using long pieces of cotton thread, hair is tugged by a quick manipulation of the hands, fingers, mouth and thread.

### ***Theory:***

1.     History and origin of respective hair removal techniques.
2.     Brief overview on the Anatomy and Physiology of the hair:
  - Composition hair follicle.
  - Hair growth cycle.
  - Stages of hair growth.
  - Classification of hair types.
  - Diseases and disorders of hair follicles.
  - Clinical significance.
3.     Advantages and disadvantages of the respective hair removal techniques.
4.     Chemical constituent of respective hair removal product (*Sugaring*).
5.     Overview of epilation and depilation techniques.
6.     Contra-indication and contra-action to respective hair removal techniques.
7.     Recommended timings and costings.

***Practical:***

1. Hygiene and safety protocol.
2. Materials required.
3. Client consultation and record keeping.
4. Skin preparation.
5. Procedure and treatment room set-up.
6. Description of practical technique for:
  - Full face (Upper lip, eyebrow, chin, side of face and neck).
  - Hands (Underarm, Arms, hand).
  - Back and Torso.
  - Legs.
  - Bikini.
7. Pre-post treatment advice.
8. Case study.



## Unit 2: Spray tanning

### ***Description of Unit 2:***

Spray tanning refers to the even application of pigmented chemicals in a liquid form that uses a low pressure spraying machine to the skin to produce a smooth flawless tan. It is a quick and convenient treatment that has good profit margins. It is the most popular treatment amongst light/pale skinned individuals. It is a great alternative to the traditional sun-tanning method which poses a risk of skin cancer. The individual also has an option of how dark he/she wants to go.

### ***Theory:***

1. Introduction and overview on spray tanning.
2. Brief overview on Anatomy and Physiology of the skin:
  - Skin types.
  - Function of the skin.
  - Diseases and disorders of the skin.
3. Contra-indications and contra-actions to spray-tanning.
4. Advantages and disadvantages of spray tanning.
5. Chemical liquids used in tanning:
  - Carotenoids.
  - Lycopene.
  - Beta-carotene.
  - Canthaxanthin.
  - DHA-based product.
  - Tyrosine-based product.
  - Melanogenesis stimulants.

- Temporary bronzers.
6. Recommended timings and costings.

***Practical:***

1. Hygiene and safety protocols.
2. Assemblage of the tanning equipment and products required.
3. Client consultation and record keeping.
4. Client and skin preparation.
5. Procedure and treatment room set-up.
6. Practical instruction and application:
  - Right side of body.
  - Left side of body.
  - Back of body.
  - Front of body.
7. Pre-post treatment advice.
8. Case study.

## Unit 3: Make-up

### ***Description of Unit 3:***

- a) **Bridal:** Make-up application ranges from bold to subtle. A trial is advisable a month before, where colours should be pre-tested to the satisfaction of the bride. Natural shades of browns, pink, peaches should be used. It is also advisable to consult with the bride on the style of bridal gown she will be wearing. Always finish off with a fixing spray.
- b) **Fantasy:** This type of make-up is generally used for fashion shows, stage and theatrical performances. Make-up tends to be bold, dark and creative. Lighting plays an important role as strong lights are used.

### ***Theory:***

1. Overview on the anatomy of the skin:
  - Structure of the skin.
  - Muscles and bones of the face.
  - Skin types and conditions.
  - Skin disorders.
  - Facial cleansing routine.
2. Colour and lighting.
3. Product knowledge.
4. Make-up and lighting.
5. Corrective make-up.
6. Airbrushing and high definition make-up.
7. Overview of eyebrow shaping.

8. Hygiene and sterilisation.
9. Importance of trial application and record charts.
10. Recommended timings and costings.

***Practical:***

1. Hygiene and safety protocols.
2. Materials required.
3. Client consultation and record keeping.
4. Skin preparation.
5. Procedure and treatment room set-up.
6. Description of practical technique for respective 'make-up look' when applying the following:
  - Foundation
  - Highlight
  - Contouring
  - Powder
  - Eyebrows
  - Eyeliner
  - Mascara
  - Blush
  - Lip-liner
  - Lipstick
7. Pre-post treatment advice.
8. Case study.

## Unit 4: Henna temporary tattooing

### ***Description of Unit 4:***

Henna is an Indian form of artwork that is used to decorate the hands and feet of eastern brides. It is also traditionally used on the hair, nails and skin. It consists of a thick paste made by crushed leaves that contain a dye pigment. It is applied through the end of a cone- shaped applicator where intricate patterns are formed through designs.

### ***Theory:***

1. Overview of the history and origins of Henna.
2. Description and cultivation of the henna plant.
3. The science of henna and the skin.
4. Bridal Henna traditions.
5. Henna Patterns.
6. Therapeutic effects of henna.
7. Contra-indications to Henna.
8. Recommended timings and costings.

### ***Practical:***

1. Hygiene and safety protocols.
2. Materials required.

3. Making a henna applicator (cone).
4. Making a henna paste.
5. Practical instructions on the application of henna.
6. Client consultation and record keeping.
7. Skin preparation.
8. Procedure and treatment room set-up.
9. Description on practical technique for:
  - Hands
  - Feet
  - Nail dyeing
10. Home-care advice.
11. Case study.

## Unit 5: Eyelash extension/perming

### ***Description of Unit 5:***

Eyelash extensions consist of enhancements designed to lengthen, thicken and add fullness to natural eyelashes. The application procedure is painless and generally takes 30 minutes to an hour. Each lash is tapered and curled, and comes in various lengths, widths, shapes and colours so that the desired image can be achieved.

### ***Theory:***

1. Introduction and overview of nail eyelash extensions.
2. Brief anatomy and physiology of the eyelash:
  - Growth cycles of eyelashes.
  - Clinical significance.
  - Diseases and disorders of the eyelashes.
3. Contra-indications and contra-actions.
4. Hygiene and sanitation.
5. Types of lashes.
6. Eye shapes.
7. Professional and aftercare products.
8. Negative impact of wearing eyelash extensions.
9. Recommend timings and costings.

***Practical:***

1. Treatment room preparation.
2. Preparation of client.
3. Consultation and record card.
4. Application and placement instructions:
  - Short, medium, long lengths.
  - Single lash and clusters.
  - Upper and lower lash placements.
5. Application of sealant.
6. Trial application on mannequin.
7. Application on client.
8. Eyelash extension removal.
9. Re-lash and maintenance.
10. Techniques used in emergencies.
11. After- care advice.
12. Case study.



## Unit 6: Artificial nails tips

### ***Description of Unit 6:***

This is considered to be a nail enhancement treatment. It is accomplished by attaching a plastic, pre-moulded nail, shaped from a tough polymer. The nail tips are glued onto the natural nail bed to add extra length or enhancement for aesthetic purposes. The tips are available in a natural look, glitter, pre-designed, and come in a variety of colours. Correct tip application is essential for the success of the end result.

### ***Theory:***

1. Overview and history of nail enhancements.
2. Anatomy and physiology of the nail:
  - Structure.
  - Function.
  - Clinical significance.
  - Nail disorders.
  - Effect of nutrition.
  - Health and care.
3. Sterilisation, sanitations and bacteriology.
4. Product knowledge.
5. Tools of the trade.
6. Recommend timings and costings.

***Practical:***

1. Treatment room set-up.
2. Complete pre-service sanitation and disinfection procedure.
3. Nail plate preparation:
  - Cleansing of nail bed and removal and preparation of cuticles.
  - File, shorten and shape.
  - Buff nail to initiate dehydration.
  - Dust and removal of visible residue.
4. Nail tip application:
  - Sizing for precise application.
  - Application nail dehydrator/cleanser product.
  - Application of adhesive.
  - Application of tips.
  - Trimming of nail tip.
  - Finishing and blending techniques.
  - Shaping of nail.
  - Concluded with gel/acrylic finish.
5. Nail tip application post service:
  - Nail tip removal (Soak-off for previous nail tips).
  - Slide off nail tips.
  - Buff nail.
  - Reapply nail tip as directed.
  - Concluded with gel/acrylic finish.
6. Nail art Application.
7. After-care advice.
8. Case study.

## **SECTION B:       MESSAGE THERAPY**

**7.    Unit 7:    a)    *Indian head massage***

**b)    *Lymphatic drainage massage***

**c)    *Sports massage***

## Unit 7:    **Massage therapy**

### ***Description of Unit 7:***

- a) **Indian head massage:** This massage modality is a renowned massage treatment known for relieving stress. It works by alleviating tension within the muscles, thereby inducing relaxation. This massage modality stimulates circulation to the brain and helps to eliminate negativity in the mind, and also improves the condition and texture of the hair and scalp by stimulating the follicles and other regions of the head.
  
- b) **Lymphatic drainage massage:** This massage modality incorporates techniques to stimulate the lymphatic system to function effectively. It detoxifies the body by removing unwanted waste and fluid from the system. The detoxifying effects help to strengthen the body's immune system.
  
- c) **Sports massage:** Sports massage possesses elements of basic Swedish massage techniques, however it is executed with a thorough knowledge of the anatomy and physiology of the skeletal and muscular systems. Sports massage is known to be an important part of an athlete's training programme in an attempt to enhance performance skills.

### ***Theory:***

1. Overview of the anatomy and physiology basics of the human body in relation to massage:
  - Skeletal System.
  - Muscular System.
  - Cardiovascular System.
  - Digestive System.
  - Endocrine System.
  - Nervous System.

- Respiratory System.
  - Immune / Lymphatic Systems.
  - Urinary System.
2. The Energy Body: Chakras, Aura, Meridians.
  3. History of respective massage modality (a, b & c).
  4. Benefits of respective massage modality (a, b & c).
  5. Contra-indications and contra-actions for massage.
  6. Massage techniques for respective massage modality (a, b & c).
  7. Massage mediums used for the respective massage modality (a, b & c).
  8. Professional ethics for massage therapists.
  9. Exercise techniques used to strengthen therapist performance when executing massage techniques.
  10. Recommended treatment times and costings.

***Practical:***

1. Hygiene and safety protocols.
2. Materials required for respective massage technique (a, b & c).
3. Client consultation and record keeping.
4. Skin preparation.
5. Procedure and treatment room set-up.

6. Application of practical techniques and methods used for the respective massage modality (a, b & c).
7. Pre-post treatment advice.
8. Case study.

## **SECTION C: FACIAL THERAPY**

**8. Unit 8: Advanced chemical skin peels**

**9. Unit 9: Microdermabrasion**

**10. Unit 10: Intense pulsed light (IPL) Lasers**

## Unit 8: Advanced chemical skin peels

### ***Description of Unit 8:***

Chemical peels provide an extremely effective skin exfoliation and skin peel rejuvenation treatment. It aims at restoring youthful skin by restoring colour, smoothness, and tone. It involves a process whereby a chemical solution is applied to the skin to producing controlled tissue death. After this process the skin has a reaction whereby it tends to regenerate itself to produce a flawless finish.

### ***Theory:***

1. Brief overview of the anatomy and physiology of the skin.
2. Classification of skin peels:
  - Superficial peels.
  - Medium peels.
  - Deep peels.
3. Types of skin peels:
  - Mandelic Peel.
  - Jessner's Peel.
  - TCA Peel.
  - Glycolic Peel.
  - Salicylic peel.
  - Alpha-Beta peel.
4. Chemical composition of peels.
5. Fitzpatrick skin type scales.
6. Advantages and disadvantages of peels.



7. Treatable Conditions:
  - Acne scarring.
  - Fine lines.
  - Oily, sensitive, dehydrated skins.
  - Sun damage.
  - Pigmentation.
8. Sun protection and skin peels.
9. Recommended treatment times and costings.

***Practical:***

1. Hygiene and safety protocols.
2. Materials required.
3. Client consultation and record keeping.
4. Skin preparation.
5. Procedure and treatment room set-up.
6. Application of practical techniques used on:
  - Face
  - Décolleté (neck)
  - Back
  - Hands
  - Body
7. Pre-post treatment advice.
8. Case study.

## Unit 9: Microdermabrasion

### ***Description of Unit 9:***

Microdermabrasion works similarly to a mini fine sand blaster which sloughs off the top layer (epidermis) of the skin and stimulates new skin growth. It also allows for the penetration of skin care products into the deeper layers of the skin, which helps build collagen to give the skin a youthful appearance. It works. This technique also assists in thickening collagen beneath the skin surface, which results in a younger looking complexion. The goal of microdermabrasion treatment is to provide the best possible results with the least possible damage or risk to the skin.

### ***Theory:***

1. History of microdermabrasion.
2. Brief overview of anatomy and physiology of skin.
  - Layers of the skin.
3. Devices used in dermabrasion:
  - Aluminium.
  - Sodium Dioxide Crystals.
  - Diamond Head Attachment.
4. Conditions treated by using microdermabrasion:
  - Hyperpigmentation.
  - Acne scarring.
  - Aging- lines and wrinkles.
  - Reduction of scar tissue and formation.
  - Sun damaged skins.
  - Blackheads and whiteheads.

- Removal of stretch marks.
- Other surface imperfections.
- 5. Fundamentals of skin care.
- 6. Skin Typing.
- 7. Differences between Crystal Microdermabrasion and Diamond Microdermabrasion.
- 8. Contra-indications and contra-actions.
- 9. Equipment maintenance.
- 10. Recommended treatment times and costings.

***Practical:***

- 1. Hygiene and safety protocols.
- 2. Materials required.
- 3. Client consultation and record keeping.
- 4. Skin preparation.
- 5. Procedure and treatment room set-up.
- 6. Application of practical techniques used on:
  - Face
  - Décolleté (neck)
  - Back
  - Hands
  - Body

7. Pre-post treatment advice.
8. Case study.

## Unit 10: Intense pulsed light (*IPL*) Lasers

### ***Description of Unit 10:***

This form of laser is referred to as Intense pulsed light (IPL) and is a popular treatment that is best-known for its ability to removing unwanted body hair and skin rejuvenation. IPL also works by stimulating the production of collagen and elastin, which firms the skin and pores. IPL's are fast becoming popular amongst clients who frequently attend beauty salons.

### ***Theory:***

1. Brief overview on anatomy and physiology of skin and hair:
  - Hair follicle cycles and hair growth tables.
2. Differences between lasers and Intense Pulsed Light (IPL).
3. Uses of Intense Pulsed Light (IPL) for:
  - Hair removal and reduction.
  - Skin rejuvenation.
4. Fitzpatrick skin typing.
5. Physics of laser light.
6. IPL laser characteristics.
7. IPL laser treatment procedures.
8. IPL laser machine - safety and precautions.
9. Contra-indications and contra-actions.
10. Treatment goals and risks.

11. Recommended treatment times, plan, costings and marketing.

***Practical:***

1. Hygiene and safety protocols.
2. Materials required.
3. Client consultation and record keeping.
4. Skin preparation.
5. Procedure and treatment room set-up.
6. Clinical application using various techniques and methods for:
  - Hair Removal.
    - Axilla treatment.
    - Bikini line.
    - Ear nose.
    - Facial area.
    - Large treatment areas (back, leg and arms).
  - Skin rejuvenation.
    - Anti-aging.
    - Pigmentation.
    - Capillary damage.
    - Improving in the appearance.
7. Pre-post treatment advice.
8. Case study.

## **SECTION D: SPA THERAPY**

### **11. Unit 11: *Spa body therapy***

**a) *Exfoliation***

**b) *Wraps***

### **12. Unit 12: *Hydrotherapy***

## Unit 11: Spa body therapy

### ***Description of Unit 11:***

- a) **Exfoliation:** Exfoliation leaves the skin feeling smoother and fresher-looking by removing the dead layer of cells from the surface of the skin. It enables products such as serums to further penetrate the skin, which allows for enhanced effects.
- b) **Wraps:** One of the most natural ways to improve and moisten the skin is through a body wrap treatment. It tones and softens the skin while removing unwanted toxins, excess centimeter's and water in the body. The products used in wraps are known to have natural substances which are formed of natural minerals and herbs that help condition the skin.

### ***Theory:***

1. Overview of the related anatomy of physiology.
2. History of spa body therapy (exfoliation and wraps).
3. Types of exfoliation methods.
  - Mechanical exfoliation methods:
    - Brush or sponge.
    - Corn Cob Meal.
    - Rice Bran.
    - Date Seed Powder.
    - Oatmeal.
    - Salt.
  - Chemical exfoliation methods:
    - Hydroxy acids.
    - Salicylic acids.



- Retinol.
  - Enzymes.
4. The five main types of wraps:
    - Algae/Seaweed.
    - Cellulite.
    - Herbal Wrap.
    - Mud.
    - Slimming.
  5. Benefits of spa body therapies (exfoliation and wraps).
  6. Contra-indication and contra-action to spa body therapies.
  7. Material, equipment and product knowledge.
  8. Hygiene and sterilisation procedures.
  9. Recommended treatment times, costings and marketing.

***Practical:***

1. Hygiene and safety protocols.
2. Materials required for spa body therapy.
3. Client consultation and record keeping.
4. Skin preparation.
5. Procedure and treatment room set-up.
6. Application of practical techniques and methods for exfoliators and wraps.

7. Pre-post treatment advice.
8. Case study.

## Unit 12: Hydrotherapy

### ***Description of Unit 12:***

Hydrotherapy involves the medicinal use of water in the treatment of disease and for soothing bodily aches and pains. It incorporates mechanical and thermal effects of water through specific equipment which interacts with the body. Minerals and herbal treatments are incorporated to manipulate the body's blood circulation to initiate a detoxifying and cleansing process. The use of water therapy has been rooted for hundreds of years, as far back as the ancient Greeks and Romans, and has experienced resurgence in popularity over the last decade.

### ***Theory:***

1. Overview of the history of hydrotherapy.
2. Types of Hydrotherapy (Mechanical/Thermal):
  - Kneipp therapy.
  - Caldarium (steam bath).
  - Jacuzzi.
  - Vichy shower.
3. Conditions treated by Hydrotherapy.
4. Benefits of Hydrotherapy (Hot and Cold).
5. Contra-indications and contra-actions for Hydrotherapy.
6. Treatment planning and implementation for clients.
7. Management of hydrotherapy services.
8. Principles of safe and effective practice using hydrotherapy equipment.

9. Sterilisation and sanitation practices.
10. Spa additives .
11. Recommended treatment times and costings.

***Practical:***

1. Hygiene and safety protocols.
2. Preparation of hydrotherapy equipment.
3. Client consultation and record keeping.
4. Client and body preparation.
5. Procedure and treatment room set-up.
6. Pre-post treatment advice.
7. Case study.

***END***

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**APPENDIX A**  
**LETTER OF PERMISSION**

37 Chartford Drive  
Sunford  
Phoenix  
4068

1 June 2012

TO WHOM IT MAY CONCERN

I Kiveshni Rammanhor, am a registered M.Tech student in Somatology at the Durban University of Technology. I am involved in a research study on Somatology education. The proposed research study seeks to establish broad guidelines for curricula development for Somatology education, at Universities of Technologies in South Africa.

The title of the research project is: ***“An analysis of the Somatology programme offered at South African Universities of Technology to determine whether it meets the needs of industry.”***

It is hoped that the findings of the study will assist with the development of new and relevant curricula and will enable the goals of the current re-curriculation process as well. Participation in this study is strictly voluntary and anonymity in the research process is guaranteed.

Your assistance through participating in this study will be sincerely appreciated.

Yours faithfully

Mrs. Kiveshni Rammanhor

M.Tech Student

Durban University of Technology



## **APPENDIX B**

### **LETTER OF INFORMATION AND CONSENT**

**Title of the research study:** An analysis of the Somatology programme offered at South African Universities of Technology to determine whether it meets the needs of industry.

**Principle Investigator:** Kiveshni Rammanhor

**Brief Introduction and Purpose of Study:**

My name is Kiveshni Rammanhor and I am employed by the Durban University of Technology (DUT), in the Somatology Program. I am currently completing my M. Tech in Somatology. The title of my research study is stated above.

Your participation and co-operation in answering the questionnaire will enable the researcher to identify current gaps in Somatology education and make recommendations for curricula development, which hopefully will enable academics to provide novel and more relevant education for practice.

The questionnaire should take an average of 10 minutes to complete. Your participation is voluntary and you may withdraw at any stage. The findings will be used for research purposes only and all information collected will remain strictly anonymous. If you have any queries kindly do not hesitate to contact me.

Kindly note, that through completing and signing the questionnaire (in the box below) you are acknowledging consent to participate in the study.

## INSTRUCTIONS

- Please answer all the questions.
- Where applicable: either place a tick in the box, next to your selected answer or give a written response.
- Answer all questions as honestly as possible.
- Please ignore the codes alongside the questions.

Your participation in my study is sincerely appreciated.

Yours sincerely

Kiveshni Rammanhor  
M. Tech Student

Dr. R. Bhagwan  
Supervisor

Contact No: 084 955 727 5

Email: [naidook@dut.ac.za](mailto:naidook@dut.ac.za)

Email: [bhagwanr@dut.ac.za](mailto:bhagwanr@dut.ac.za)

I \_\_\_\_\_ the undersigned, hereby agree  
(Name in full)  
to participate in this research study.

\_\_\_\_\_  
**Signature of the participant**

\_\_\_\_\_  
**Date**

**APPENDIX C**  
**STUDENT QUESTIONNAIRE**  
**(CPUT/ CUT/ DUT/ TUT/UJ)**

**SECTION A:**

**BACKGROUND INFORMATION**

**This section contains questions on demographic and background variables.**

*Please place a tick (✓) next to your answer.*

*Please ignore codes along side the questions.*

1. Gender

Female		1
Male		2

2. Race

African		1
Coloured		2
White		3
Indian		4
Other		5

3. First Language

English		1
Afrikaans		2
Zulu		3
Xhosa		4
Other		5

4. Age

18 Under		1
19 – 20		2
21 – 22		3
above 23		4

5. Year of study

3 <sup>rd</sup>		1
B-Tech		2

6. Name of UOT where studying?

TUT		1
DUT		2
CPUT		3
UJ		4
CUT		5

## SECTION B:

### CURRICULUM AND SKILLS TRAINING ANALYSIS

1. Rate the Following (1 = Agree, 2 = Disagree, 3 = Not Applicable)

*Please place a (✓) tick next to your answer.*

Knowledge for work preparedness					1	2	3	For each subject which you have answered "2=disagree", briefly state what further knowledge/ skills should be included.
Do you think that the following subjects covered in your somatology curriculum provided adequate <b>theoretical</b> knowledge?	<b>1.1 LEVEL ONE (FIRST YEAR)</b>	Anatomy and Physiology I	1.1.1	I				..... ..... .....
		Biotics I	1.1.2	I				..... ..... .....
		Communication Skills	1.1.3	I				..... ..... .....
		Science I	1.1.4	I				..... ..... .....
		Aesthetics	1.1.5	I				..... ..... .....
		Auxillary Therapy, Mani & Pedi	1.1.6	I				..... ..... .....

		Nutrition I	1.1.7	I				.....
								.....
								.....
		Somatherapy (Body I & Facial I)	1.1.8	I				.....
								.....
								.....
		Soma Techniques I	1.1.9	I				.....
								.....
								.....
<b>1.2 LEVEL 2 (SECOND YEAR)</b>		Anatomy and Physiology II	1.2.1	II				.....
								.....
		Aromatherapy	1.2.2	II				.....
								.....
		Body Therapy II	1.2.3	II				.....
								.....
		Business Practice I	1.2.4	II				.....
								.....
								.....
		Computer Skills	1.2.5	II				.....
								.....
								.....

		Diathermy	1.2.6	II				.....
								.....
								.....
								.....
								.....
		First Aid	1.2.7	II				.....
								.....
								.....
								.....
								.....
		Facial Therapy II	1.2.8	II				.....
								.....
								.....
								.....
								.....
		Reflexology Level 1	1.2.9	II				.....
								.....
								.....
								.....
								.....
		Science II	1.2.10	II				.....
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								.....

		Spa Therapy	1.2.11	II				..... ..... ..... ..... .....
		Soma Techniques II	1.2.12	II				..... ..... ..... ..... .....
		Biotics II	1.2.13	II				..... ..... ..... ..... .....
		Nutrition II	1.2.14	II				..... ..... ..... ..... .....
		Socio Psychology I	1.2.15	II				..... ..... ..... ..... .....



	<b>1.3 LEVEL 3 (THIRD YEAR)</b>	Applied Biological Sciences III	1.3.1	III				..... ..... ..... .....
		Aromatherapy	1.3.2	III				..... ..... ..... .....
		Biotics III	1.3.3	III				..... ..... ..... .....
		Business Practice II	1.3.4	III				..... ..... ..... .....
		Manual Lymph Drainage	1.3.5	III				..... ..... ..... .....
		Reflexology II	1.3.6	III				..... ..... ..... .....
		Socio-Psychology II	1.3.7	III				..... ..... ..... .....

		Soma Techniques III	1.3.8	III				.....
								.....
								.....
		Computer Skills I	1.3.9	III				.....
								.....
								.....
		Nutrition III	1.3.10	III				.....
								.....
								.....

**P.T.O**

2. Rate the Following (1 = Agree, 2 = Disagree, 3 = Not Applicable)

*Please place a (✓) tick next to your answer.*

Practical Training					1	2	3	For each subject which you have answered "2=disagree", briefly state what further knowledge/ skills should be included.
Do you think that the following subjects covered in your Somatology curriculum provided adequate <b>practical</b> training?	<b>2.1 LEVEL 1 (FIRST YEAR)</b>	Aesthetics	2.1.1	I				..... ..... ..... ..... .....
		Auxillary Therapy, Mani & Pedi	2.1.2	I				..... ..... ..... ..... .....
		Soma Techniques	2.1.3	I				..... ..... ..... ..... .....
		Somatherapy (Body I & Facial I)	2.1.4	I				..... ..... ..... ..... .....
	<b>2</b>	Aromatherapy	2.2.1	II				.....

								.....
								.....
								.....
		Body Therapy II	2.2.2	II				.....
								.....
		Diathermy	2.2.3	II				.....
								.....
		Experiential Training I	2.2.4	II				.....
								.....
		Soma Techniques II	2.2.5	II				.....
								.....
		Beauty Practice III	2.2.6	II				.....
								.....
		Facial Therapy II	2.2.7	II				.....
								.....

		Reflexology Level 1	2.2.8	II				.....
		Spa Therapy	2.2.9	II				.....
	<b>2.3 LEVEL 3 (THIRD YEAR)</b>	Aromatherapy	2.3.1	III				.....
		Experiential Training II	2.3.2	III				.....
		Manual Lymph Drainage	2.3.3	III				.....
		Reflexology II	2.3.4	III				.....
		Soma Techniques III	2.3.5	III				.....
		Soma Techniques Project II	2.3.6	III				.....

## SECTION C:

### CURRICULA DEVELOPMENT

*Please write a clear and informative response to each question.*

1. Do you think any further subjects should be included in the current Somatology curriculum?

If “yes” indicate what subjects and elaborate on the content.

1.1.....  
.....  
.....

1.2.....  
.....  
.....

1.3.....  
.....  
.....

1.4.....  
.....  
.....

1.5.....  
.....  
.....

2. Are there any gaps you can identify in the somatology education program?

*Please place a tick ( ✓ ) on your answer.*

*Please ignore codes alongside the questions.*

YES	1	NO	2
-----	---	----	---

**P.T.O**

If “yes” Briefly state what further educational and skill components needs inclusion in the current curriculum:

2.1 .....  
.....  
.....  
.....

2.2.....  
.....  
.....  
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2.3.....  
.....  
.....  
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2.4.....  
.....  
.....  
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2.5.....  
.....  
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.....

**END**

**THANK YOU FOR YOUR PARTICIPATION**

## APPENDIX D

### INTERVIEW SCHEDULE FOR IN-DEPTH INTERVIEWS: ACADEMICS AT UOT'S

NO.	QUESTIONS	✓
1.	Briefly describe the development of the Somatology program at your UoT.	
2.	What are the current gaps in the Somatology curriculum?	
3.	What new aspects do you think needs to be built into your programme?	
4.	What further skills/practical training needs to be implemented to better prepare students for the work place?	
5.	What are your views with regard to whether the current somatology education program is aligned with the needs of industry?	
6.	What are the advantages of the Somatology profession being affiliated with a professional body or statutory body?	
7.	Briefly describe what you think the UoT's need to do to enable professionalization of the Somatology field?	

**END**



## APPENDIX E

### INTERVIEW SCHEDULE TO GUIDE FOCUS GROUP DISCUSSION: MEMBERS OF THE ADVISORY BOARD

NO.	QUESTIONS	✓
1.	What are your views about the current Somatology program at DUT?	
2.	What new subjects can potentially be built into Somatology education?	
3.	Elaborate on the specific knowledge that should be built into these subjects.	
4.	What further skills training can be implemented to better graduates for the workplace?	
5.	How can the curriculum be developed in relation to the changes in industry?	
6.	How can the Advisory Board continue to enable the development of the program in its role?	

### ETHICS CLEARANCE CERTIFICATE

Student Name	Kiveshni Rammanhor	Student No	20351177
Ethics Reference Number	FHSEC 018/11	Date of FRC Approval	6 June 2011
Qualification	M. Tech Somatology		
Research Title:	<b>An evaluation of the Somatology curriculum at Universities of Technology in South Africa: Guidelines for improvement</b>		

*In terms of the ethical considerations for the conduct of research in the Faculty of Health Sciences, Durban University of Technology, this proposal meets with Institutional requirements and confirms the following ethical obligations:*

1. The researcher has read and understood the research ethics policy and procedures as endorsed by the Durban University of Technology, has sufficiently answered all questions pertaining to ethics in the PG 4a and agrees to comply with them.
2. The researcher will report any serious adverse events pertaining to the research to the Faculty of Health Sciences Research Ethics Committee.
3. The researcher will submit any major additions or changes to the research proposal after approval has been granted to the Faculty of Health Sciences Research Committee for consideration.
4. The researcher, with the supervisor and co-researchers will take full responsibility in ensuring that the protocol is adhered to.
5. **The following section must be completed if the research involves human participants:**

	YES	NO	N/A
❖ Provision has been made to obtain informed consent of the participants	Yes		
❖ Potential psychological and physical risks have been considered and minimised	Yes		
❖ Provision has been made to avoid undue intrusion with regard to participants and community	Yes		
❖ Rights of participants will be safe-guarded in relation to:	Yes		
- Measures for the protection of anonymity and the maintenance of Confidentiality.			
- Access to research information and findings.	Yes		
- Termination of involvement without compromise	Yes		
- Misleading promises regarding benefits of the research	Yes		

SIGNATURE OF STUDENT/RESEARCHER

13/06/11  
DATE

SIGNATURE OF SUPERVISOR/S

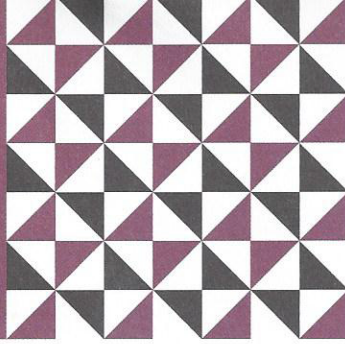
11/07/11  
DATE

SIGNATURE OF HEAD OF DEPARTMENT

11/07/11  
DATE

SIGNATURE: CHAIRPERSON OF RESEARCH ETHICS COMMITTEE

15/07/11  
DATE



Student No: 20351177

Mrs K Rammanhor  
Department of Chiropractic and Somatology

Dear Mrs Rammanhor

**APPLICATION FOR CHANGE OF TITLE**

I am pleased to inform you that the Research and Higher Degrees Committee (RHDC) has approved your change in title at a meeting held on Monday, 2 June 2014.

Your new, approved title is: "An analysis of the Somatology programme offered at South African Universities of Technology to determine whether it meets the needs of industry".

Yours sincerely



Mr S Reddy  
FACULTY RESEARCH OFFICER  
FACULTY OF HEALTH SCIENCES

cc. Ms D Borg (Acting Head of Programme: Somatology)