Somatology Practices in Non-medical Aesthetic Treatments: Towards Development of Good Practice Guidelines for Somatology in South Africa: a Scoping Review Protocol

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Protocol

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Abstract

Background: The medical aesthetics industry is a very profitable and rapidly growing branch of medicine. Currently, somatologists or beauty therapists who either independently perform or assist medical directors in these aesthetic procedures, are not regulated by a professional body in most countries including South Africa. The absence of a prescribed scope of practice, attributed to absence of formal professional regulation, has resulted in an increase in anecdotal reports of complications and malpractice being referred to medical professionals. Since the mandate of regulatory bodies is to guide the professions and to protect patients and the public, currently, the absence of regulation in the somatology profession exposes patients/clients to unsafe practices predominately in the private sector. The objective of this scoping review is to map evidence on the somatology practices and regulations for non-medical aesthetic treatments.

Methods: We will conduct a scoping review using peer reviewed journal articles that present literature on the practice of non-medical aesthetic treatments. Grey literature including media reports, and unpublished theses will be included. Electronic searches of databases and search engines such as Scopus, CINAHL, EBSCOhost, Health Source - Consumer Edition; Health Source: Nursing/Academic Edition, Open Dissertations, Google Scholar and MEDLINE will be undertaken to attain published articles and reports from all study designs. Duplicated documents will be deleted prior to title screening commencing. All retrieved literature will be exported into an Endnote X20 library. The quality of each publication will be appraised using the mixed methods appraisal tool (MMAT) – version 2018.

Discussion: We will map the evidence of how non-medical treatments are commonly being performed by non-physicians and somatologists, including identifying which treatments and procedures are more at risk in resulting in adverse reactions if not administered ethically or correctly. Once summarised, the data could be used to develop relevant and current good practice guidelines that could be later integrated into a framework for somatologists performing non-medical aesthetics treatments in South Africa.

Systematic review registration: Open Science Framework registration (<https://osf.io/4fk8g/>)

Background

Countries such as the United States of America and Netherlands have regulated the beauty industry (1). In these countries therapists are required to acquire a cosmetology license to practice or for insurance purposes (2, 3). However, within the South African context, the Somatology industry has no clear scope of practice and is not regulated by a professional body, such as either the Health Professions Council of South Africa (HPCSA) or Allied Health Professional Council (AHPCSA) (4, 5). This vacuum in legislation may have led to an increase in numerous somatologists performing more specialised non-medical aesthetic treatments independently, or under supervision of a medical professional, for lucrative economic gain without either adequate training or supervision (4, 6). This is in contravention with both the Health Professions Act 56 of 1974 (section 39/A) and the Allied Health Professions Act 63 of 1982

which specifically prohibits health professionals registered under the specific act from working directly with any other unregistered professional (7). Both professional boards also prescribe such activity as an offence punishable by either a fine or imprisonment. The medical industry is experiencing an increase in the referral of patients with complications following from medical aesthetic treatments performed by unregistered somatologists, both internationally and locally (8–12).

The medical aesthetics industry is a very profitable and rapidly growing branch of medicine both internationally and locally (13–17). Reports (10, 18–20) emerging from international countries that have regulated the practice of somatologists are highlighting the dangers and increase in litigation associated with these practitioners. This is prevalent despite the fact that on-site medical directors were consulted or supervised the procedures. When there is no professional regulation, some health care professionals may deliver low-quality services at high-quality prices to unaware consumers (1, 21). This concept may be adapted to somatologists, who may or may not be employed by other registered health care professionals, to perform specialized time-consuming treatments at generally high prices(22). More especially, when the legal nuances are not clearly understood, it may result in some medical professionals willfully or inadvertently not being compliant with legislation. With regulation, the profession can provide axillary support to other health professionals and become members of a multi-disciplinary team approach, as proposed in the National Health Insurance (NHI)(23). Thus, establishing partnerships with the Department of Health, the Sustainable Development Goal (SDG) 3 of the United Nations Development Programme, which addresses good health and well-being for all (United Nations Development Programme, 2021)(24) can be more obtainable.

Recently the training for somatologists has become more extensive, enabling the therapists to analyse and treat skin and body conditions through various specialised non-medical treatments (25). Thus, more are working in medical settings (Medical spas, Medical Aesthetic practices) alongside doctors specialising in cosmetic surgical and/or non-surgical procedures(6, 9, 25). The aim of the study is to map evidence on the somatology regulations for non-medical aesthetic treatments. This study seeks to draw from the understandings of both medical aesthetics professionals and somatologists to identify gaps that could be addressed and used to develop relevant and current good practice guidelines that could be later integrated into a framework for somatologists performing non-medical aesthetics treatments in South Africa. Additionally, it is anticipated that these guidelines will assist in strengthening this fast-evolving profession while safeguarding the equilibrium between patient safety and profitability.

Methodology

To efficiently map an extensive range of information on the existing practice of somatology in non-medical aesthetic treatments, a scoping review was selected. A phenomenological approach to systematically and rigorously map published literature, including identifying gaps on this topic from quantitative, qualitative and mixed-methods studies. The protocol is guided by Arksey and O'Malley's first five stages of the methodological framework for conducting a scoping review(26). The framework was amplified by Levac *et al.*(27). This involved, the identification of the research question, identification of

appropriate studies, the study selection, charting the data, including collating, summarizing and reporting of the search results. As per the appraisal tools of the Joanna Briggs Institute(28) the quality of the articles and records will also be appraised. This scoping review protocol was registered on OSF (Open Science Framework) *apriori* and it is accessible via this link: <https://osf.io/4fk8g/>

Identification and eligibility of the research question

Research question is as follows: What is known about the somatology practices in non-medical aesthetic treatments?

The Population, Context, Concept (PCC) framework will sufficiently explain the eligibility of the research question (Table 1).

Table 1 PCC: Population, Context, Concept framework for determining eligibility of the research question

Criteria	Determinants
Population	Somatologists refers to a beauty therapist/non-physician operator or technician/aesthetician that performs non-medical aesthetic treatments
Concept	Practices- The current regulations and ethical practice of non-medical aesthetic treatments (Laser treatments (IPL), chemical skin peels, micro needling, micro dermabrasion, skin resurfacing treatments, radio wave frequency treatments) performed by somatologists.
Context	The clinical settings: Somatology clinics, medical-spas, spas and medical aesthetic practices where non-medical aesthetic treatments are offered and performed.

Identifying relevant studies

We will conduct a systematic and comprehensive search of relevant records or articles, using the following electronic data bases and search engines for articles published between October 2021 and since inception: Google Scholar, PubMed, EBSCOhost, Scopus, CINAHL, Health Source - Consumer Edition; Health Source: Nursing/Academic Edition and MEDLINE. Additionally, grey literature from university dissertations and theses from institutional repositories, government, and international organizations’ reports such as those of the WHO, will be included in the search.

The search strategy will be informed by key terms including: “medical aesthetics”, “non-medical aesthetic treatments/ procedures”, “non-invasive beauty treatment”, “aesthetic treatments”, “beauty procedures”, “Intense pulse light (IPL)”, “photodynamic therapy”, “microdermabrasion”, “microplanning/ micro blading”, “radio frequency skin treatment”, “chemical skin peeling”, “skin care”, “Skin rejuvenation”, “wound healing”, “professional practice”, “professional guidelines” “patient complaints”, “treatment damage”, “ethical issues”, “ethical practice”, “legal issues”, “scope of practice”, “somatologists”, “beauty

therapists", "esthetician", "cosmetologist" "medi-spas", "spas" and "beauty salon". Keywords will be separated with Boolean terms, AND and OR. For each database we will adapt the search strategy. Each search will be documented comprehensively displaying the keywords, date of search, search engine and the number of publications retrieved. In addition, the search strategy will be steered by the health librarian.

A pilot search with EBSCOhost using selected databases (Business Source Complete; Academic Search Complete; AHFS Consumer Medication Information; CINAHL Complete; Health Source - Consumer Edition; Health Source: Nursing/Academic Edition; MasterFILE Premier; MEDLINE; OpenDissertations) was conducted to demonstrate feasibility of addressing the research question using a scoping review method. University of Pretoria (KG) and Durban University of Technology (AF) librarians assisted in optimizing the search strategy. Presented in Table 2 are the results of the pilot search.

Table 2 Results of pilot search

Keywords search	Date of search	Number of publications	Data bases included in Pilot search using EBSCOhost
(Somatology OR somatologist OR "beauty therapist" OR aesthetician OR cosmetologist OR spa OR "beauty salon" OR beautician OR "skin care therapist" OR "Beauty Technologist" OR "non- physician operator") AND ("non-medical aesthetic treatments" OR "non-invasive beauty treatment" OR "aesthetic treatments" OR "beauty procedures" OR "skin resurfacing cosmetic treatment" OR "Intense pulse light (IPL)" OR "Photodynamic therapy" OR "Microdermabrasion" OR Microplaning OR Microblading OR "Radio Frequency skin treatment" OR "Chemical skin peels" OR "skin care" OR "Skin rejuvenation" Or "Wound healing") AND ("practice guidelines" OR "ethical issues" OR "scope of practice" OR guideline OR policy OR complain OR "professional practice	13/10/2021	2,895	Business Source Complete; Academic Search Complete; AHFS Consumer Medication Information; CINAHL Complete; Health Source - Consumer Edition; Health Source: Nursing/Academic Edition; MasterFILE Premier; MEDLINE; OpenDissertations

No restrictions on the publication period or geographical origin of the articles or records will be included as part of the research methodology as the introduction and concept of non-medical aesthetic treatments are relatively young. Thus, providing a broader overview of how the discipline has morphed into its current practice and the factors associated with such practice.

Study selection

To ensure that relevant studies were included on how non-medical aesthetics is currently practised, a selection criterion was developed. Two members of the research team independently screened against the predefined inclusion criteria to determine eligibility. Any discrepancies will be resolved through dialogue between the two reviewers; but if no consensus is reached then a third reviewer will be consulted.

Inclusion criteria

To be included, articles or records must meet the following criteria:

- Reporting evidence on medical aesthetic treatments currently being practised
- Reporting evidence on various non-medical aesthetic treatments
- Reporting evidence on who is performing the non-medical aesthetic treatments
- Reporting evidence on the ethical practice of the medical aesthetic industry
- Reporting evidence on scope of practice of somatologists/non-physician operators

Exclusion criteria

We will exclude articles guided by the following exclusion criteria:

- Articles reporting evidence on cosmetic surgery treatments only performed by medical professionals.

The review will be conducted within a two-month time frame (October to November 2021). The quantity of publications reviewed including full-text studies retrieved, records and articles and records that have been excluded will be reported on using guidelines and criteria established in Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA ScR) (Figure 1).

Charting the data

A data charting template was constructed using the Google form software to extract and record relevant data characteristics from included articles and other sources of evidence (Table 3). The data will be independently charted and transferred from the articles and records onto the form. The charting form will be piloted by two of the screeners. An additional screener will independently endorse appropriateness for the article's inclusion. After charting ten articles, all the screeners involved will meet to establish if the process is effective and all variables satisfy the requirements of the review. The data will be compared and any differences will be resolved either by consensus or third reviewer. The PRISMA ScR will be updated continuously throughout this process.

Table 3 Data charting form

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1. Author and publication year
 2. Study title
 3. Study aim
 4. Study population
 5. Study setting
 6. Type/s of aesthetic treatment
 7. Patient safety link
 8. Ethical practice identified
 9. Study design
 10. Study finding
 11. Conclusion
-

Collating, summarizing, and reporting of the results

As a variety of study designs and records are included in the scoping review, the Mixed Method Appraisal Tool (MMAT)- version 18 (30) will be used to evaluate the quality of the included evidence. The process comprises of a three stages approach. Stage 1 includes thematic content analysis for qualitative studies and numerical counts and tables for quantitative studies. Stage 2 involves a narrative report and summary of the results. Stage 3 will highlight the literature gaps identified pertaining to the practice of non-medical aesthetics. In addition, practicability of conducting further systematic review or studies will be suggested, which may contribute to addressing the literature gaps identified.

Therefore, the themes identified would be examined in relation to the objectives of the study to map evidence on the current somatology practice and regulations for non-medical aesthetic treatments. To develop relevant and current good practice guidelines that could be later integrated into a framework for somatologists performing non-medical aesthetics treatments in South Africa.

Discussion

To the best of our knowledge, this proposed scoping review will be one of the first in the somatology field to contemplate mapping evidence on the Somatology practices in non-medical aesthetic treatments. As the somatology profession is fast-evolving, driven by high profit potential and not regulated by a statutory professional body, patient safety could be compromised. The World Health Organization (WHO) vision is to ensure good health and well-being for all (SDG3) and the South African Association of Health and Skincare professionals objective is to increase professionalism and enhance consumer protection against improper practice(25). Thus the findings can make a valuable contribution to identifying the gaps in the current somatology practice.

Despite there being strong evidence of how medical aesthetics is currently practised within the medical professional relating to medical aesthetic surgery, these surgical procedures have been excluded from this scoping study as surgery is not within a somatologist scope of practice.

It is anticipated that the results emanating from this study will identify which treatments and procedures are more perilous in resulting in adverse reactions if not administered correctly. Such findings could be

beneficial in developing good practice guidelines that could be later integrated into a framework for somatologists performing non-medical aesthetics treatments in South Africa. Additionally, it is anticipated that these guidelines will assist in safeguarding the equilibrium between patient safety and profitability.

Limitations

Conducting a scoping review with no time limitation may prove time consuming and expensive. Thus, to ensure the process is cost-effective and timeously completed strict timelines will be applied. Any client complications or damages caused through medical aesthetic surgery performed specifically by medical professionals will not be included.

Abbreviations

HPCSA: Health Professions Council; AHPCSA: Allied Health Professional Council of South Africa; SDG: Sustainable Development Goal; PCC: Population Concept Context; PRISMA ScR: Preferred Reporting Items for Systematic Review and Meta-Analysis- Extension for Scoping Reviews; WHO: World Health Organization.

Declarations

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Authors' contributions

The protocol was conceptualized and developed by DB under the mentorship of TPM-T. DB, KG assisted with optimizing database pilot search. AF, AR and TPM-T contributed in critical review of the manuscript. All authors have read and approved the final manuscript.

Availability of data and materials

All data generated and analyzed during this study will be included in the published scoping review article. It will be made available on request to.

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

Competing interests

The authors have no competing interests.

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Figures

Figure 1

PRISMA ScR flow diagram demonstrates the literature searches including the selection of evidence processes (29) *Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [PRISMA ScR Fillable Checklist.pdf](#)