

**KNOWLEDGE, ATTITUDES AND PERCEPTIONS OF BIOPUNCTURE
AND ITS USE IN CLINICAL PRACTICE BY REGISTERED
HOMOEOPATHS**

by

Nonhlakanipho Sinenhlanhla Mbokazi (2020)

Mini-dissertation submitted in partial compliance with the requirements for the

Master's Degree in Technology: Homoeopathy

In the Faculty of Health Sciences at the Durban University of Technology.

Signature of supervisor

Dr Cornelia Hall

MTech: Homoeopathy

Date of signature

ABSTRACT

Introduction

Biopuncture is an injectable therapy which employs ultra-diluted biotherapeutic regulators. The proposed means by which biopuncture induces healing is by stimulating the immune system to heal the body. Biopuncture is currently used worldwide in the health sector for treating a variety of diseases, the most common being musculoskeletal complaints. Biopuncture has recently become a popular adjunctive therapeutic method which has been integrated into many homoeopathic healthcare practices in South Africa. There is currently limited literature on biopuncture in a South African context. Most of the existing literature needs to be translated into English. This study allowed homoeopaths to provide useful information about their level of awareness and practical uses of biopuncture. This study also identified existing misconceptions about biopuncture amongst homoeopaths in South Africa.

Aim of the study

The study aimed to investigate the knowledge, attitudes, and perceptions of registered homoeopathic practitioners regarding biopuncture treatment, and their management of clinical cases with biopuncture as a treatment modality.

Methods

Data was collected using a self-administered questionnaire. Self-report techniques are the most effective way to gather factual information about participants' perceptions, knowledge levels, and experiences. This quantitative study employed a convenience sampling method. The participants were homoeopaths who were registered with the Allied Health Professions Council of South Africa (AHPCSA) and were practising in South Africa. There were about 500 homoeopaths who were registered with the Council at the time of the study. The study's desired sample size was $n = 225$. The questionnaires were distributed electronically with the assistance of AHPCSA. The participants were expected to fill in the forms within two weeks but there was a time extension. The researcher received and collected the responses of the questionnaire forms by email. The data was coded and captured into a Microsoft Excel spreadsheet and the results were analysed using SPSS version 25®.

Results

The response rate was 35% (n = 77) of the initial sample size. The results showed 72% of the participants understood and had a knowledge of biopuncture. The overall attitude was positive that biopuncture is an appropriate complimentary adjunctive therapy in a homoeopathic practice. The majority (62%) of the participants were using biopuncture in their practice. Chi-squared analysis found that the number of years practised and the use of biopuncture are dependent. The finding was that all of the practitioners who were in practice for less than two years were using biopuncture. Biopuncture has been effectively used as a treatment and to manage clinical cases. A minority of participants (4%) perceived biopuncture to be unhomoeopathic and responded that it should be eliminated from homoeopathic practice. The importance and need for biopuncture technique training before applying it in practice came through as a strong finding, and, therefore, recommendation.

DECLARATION

I, Nonhlakaninpho Sinenhlanhla Mbokazi, do declare that this dissertation is my own work and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

10/05/2021

Signature of Student

Date of signature

Nonhlakaninpho Sinenhlanhla Mbokazi
(20902189)

Approved for final submission

10/05/2021

Signature of supervisor

Date of signature

Dr Cornelia Hall

MTech: Homoeopathy

DEDICATION

I dedicate this work to my Mother (T. Mbokazi), to my sister(Nonhle) and My Whole Family boMagembe, without you this would not have been possible. Thank you for always encouragement and believing in me. For your unconditional love. In deed

God BLESS me with an awesome loving Family.

I love you all so much Mcwaa!

ACKNOWLEDGEMENTS

To my heavenly Father, God Almighty thank you!

To Dr Hall thank you for being the best supervisor. It was a long journey thanks for guiding and encouraging me all the way to the finishing point.

To Dr Nienaber thanks for sharing your expertise on this topic of biopuncture. You encouraged me and were always willing to assist me.

To all the Department of Homoeopathy staff and facilitators, thanks for all of contributions throughout my studies. And thanks to Dr S. Marsh-Brown.

ALL THE PARTICIPANT HOMOEOPATHIC PROFESSIONALS, THANKS FOR ASSISTING ME AND BEING A PART OF MY PROJECT.

My Mother JC Ndlovu, TG Mbokazi-Mlaba, NG Mbokazi-Mbatha, and Thabisile D. Mbokazi. boMagembe thank you all so much supporting, loving, and all guardians lesson you have taught me. Helping to shape me into the lady I am today. Thank you for all my siblings.

To my siblings, Sis Nomathemba, Bhuti Vusi, Lwazi, Sandile, Nonhle, Nhlanhla, Sabelo, Kwanele and Sibongakonke. And all my family and All my children thank you for being patient with me and your Support.

Friends and the church thanks a lot for support. Everyone that supported me, I am forever grateful. May God bless you.

TABLE OF CONTENTS

ABSTRACT	ii
DECLARATION.....	iv
DEDICATION	v
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS	vii
LIST OF FIGURES.....	xii
LIST OF TABLES.....	xiii
LIST OF APPENDICES.....	xiv
LIST OF ACRONYMS AND DEFINITIONS.....	xv
CHAPTER 1: INTRODUCTION.....	1
1.1 Introduction.....	1
1.1. Importance of the study.....	2
1.2 Aims and objectives	2
1.2.1 Aim	2
1.2.2 Objectives.....	2
1.3 Method of research	3
1.4 Delimitations of the study	3
1.5 Benefits of the study.....	3
1.6 Conclusion.....	3
CHAPTER 2: LITERATURE REVIEW.....	5
2.1 Homoeopathy	5
2.1.1 An overview of homoeopathy.....	5
2.1.2 Classical homoeopathic principles.....	6
2.1.3 The homoeopathic prescription remedy.....	6
2.1.3.1 Single remedy	7
2.1.3.2 Complex remedies	7
2.1.3.3 Potentisation scales	8

2.2	Homotoxicology.....	10
2.2.1	An overview of homotoxicology	10
2.2.2	The principles of homotoxicology.....	10
2.2.3	Antihomotoxin remedies	12
2.3	Biopuncture	13
2.3.1	Principle action of the remedy.....	13
2.3.2	Substances injected.....	16
2.3.3	Biopuncture therapy injection techniques	17
2.3.4	Route of drug administration.....	18
2.3.5	Four methods of injection.....	19
2.3.6	The therapeutic phases of drug administration	22
2.3.6.1	Phase 1	22
2.3.6.2	Phase 2	22
2.3.6.3	Phases 3	22
2.3.6.4	Phase 4	22
2.3.7	Biopuncture as an alternative to analgesics treatment	24
2.3.8	Therapeutic benefits of biopuncture by review of case studies.....	25
2.3.8.1	Lymphomyosot®	25
2.3.8.2	Spascupreel®.....	27
2.3.8.3	Zeel®	28
2.3.8.4	Traumeel®	29
2.4	Knowledge, attitude and practice (KAP).....	30
2.4.1	Introduction	30
2.4.2	Perception.....	31
2.4.3	Knowledge.....	31
2.5	Conclusion.....	33
CHAPTER 3: METHODOLOGY		35
3.1	Study Design	35
3.2	Study population.....	35
3.2.1	inclusion criteria	35
3.2.2	Exclusion criteria.....	36
3.3	Data collection tool	36
3.4	Data collection process	37

3.4.1	Initial contact.....	37
3.4.2	Delivery of questionnaires.....	37
3.4.3	Collection of questionnaires.....	37
3.5	Confidentiality and Consent.....	37
3.6	Data analysis.....	38
3.7	Limitation.....	38
CHAPTER 4: ANALYSIS OF RESULTS		39
4.1	Section A: Demographic results	39
4.1.1	Q1. Gender.....	39
4.1.2	Q2. What type of qualifications do you possess?	39
4.1.3	Q3. How many years have you been in homoeopathic practice?	40
4.1.4	Q4. The provincial location of practices of participants.....	40
4.2	Section B: The attitudes, knowledge, and perceptions of biopuncture	41
4.2.1	Q.8. Where have you heard of biopuncture?	41
4.2.2	Q.9. Which statement in your opinion best defines biopuncture?	41
4.2.3	Q.10. How would you describe your knowledge on biopuncture?.....	42
4.2.4	Q.11. Which of the following statements best reflects your view of biopuncture?	42
4.2.5	Q.12. In the treatment of acute conditions (fever, gastroenteritis, coughing etc.) do you think that biopuncture is that biopuncture is	43
4.2.6	Q.13. In the treatment of chronic conditions (diabetes, cystic fibrosis, etc.), do you think that biopuncture is	44
4.2.7	Q.14. Please state your views on the following statements	44
4.2.7.1	Q14.1. The use of biopuncture as an adjunctive by homoeopaths is needed in South Africa	44
4.2.7.2	Q14.2. The use of biopuncture by homoeopaths conflicts with the traditional philosophy of homoeopathy	45
4.2.7.3	Q14.3. The administration of biopuncture is needed as an adjunctive within the homoeopathic scope of practice.....	45
4.2.7.4	Q.14.4. The use of biopuncture by homoeopaths is useful for good patient management.....	46
4.3	Section C. The use of biopuncture in clinical practice	46
4.3.1	Q15. Do you use biopuncture in your practice?	46

4.3.2	Q.16. Does medical aid pay for biopuncture therapy treatment?	47
4.3.3	Q.17. How many years have you been using biopuncture in practice? .	47
4.3.4	Q.18. How many therapy sessions on average does each patient require? [Acute condition]	48
4.3.5	Q.19. How many therapy sessions on average does each patient require? [Chronic condition]	48
4.3.6	Q.20. Are there times when you prescribe biopuncture only?.....	49
4.3.7	Q.21. What is the average time for a biopuncture therapy session?.....	49
4.3.8	Q.22. Where do you buy your injectable ampoules?	50
4.3.9	Q.23. Theoretically, there are four phases according to the prescribed biopuncture technique when we approach the patient. To what extent on average, do you follow the biopuncture technique?	50
4.3.10	Q.24 What are some of the ampoules (if any) that you most frequently use in treatment?	51
4.3.10.1	Q.24.1. Musculoskeletal system illness/condition.....	51
4.3.10.2	Q.24.2. Respiratory system medical conditions/ illness?.....	52
4.3.10.3	Q.24.3. Gastrointestinal system medical conditions/ illness?	53
4.3.10.4	Q24.4 Neurological system medical conditions/illness (conditions of the neurological system)	54
4.3.10.5	Q.24.5. Urogenital system medical conditions/illness.....	54
4.3.11	Q.25. Name the most common conditions you treat or cases that you prescribe biopuncture	55
4.3.12	Q.26. What are some of the adverse or undesired effects which have been experienced by your patients in the use of Biopuncture?.....	55
4.3.13	Q.27. Are there, in your opinion, other disadvantages in the use of biopuncture? (please elaborate)	56
4.4	Correlation analysis	57
4.4.1	The results of various variables compared to gender	58
4.4.2	The results of various variables compared to “Years in practice in homoeopathy”	59
4.5	Conclusion.....	60
CHAPTER 5: DISCUSSION OF THE RESULTS		61
5.1	Introduction.....	61

5.2	Study sample population	61
5.3	Objectives.....	62
5.3.1	Objective 1: Level and extent of knowledge of biopuncture with regard to biopuncture.	62
5.3.2	Objective 2 and Objective 3: Attitudes and perceptions of homoeopathic practitioners with regard to biopuncture	65
5.3.3	Objective 4: To determine homoeopathic practitioners' use of biopuncture treatment in managing a clinical case	68
5.4	Application of the four phases technique.....	69
5.5	Name the most common conditions you treat or cases that you prescribe biopuncture.....	69
CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS		71
6.1	Conclusions.....	71
6.2	Limitations of the study.....	72
6.3	Summary	72
6.4	Recommendations	73
REFERENCES.....		74
APPENDICES		84

LIST OF FIGURES

Figure 2.1. Potentisation in centesimal scale	9
Figure 2.2: The bystander reaction as a model for a principle of remedy action	16
Figure 2.3: Pincer palpation for intramuscular injection.....	19
Figure 2.4: The method used to find the pain point before injection is administered	20
Figure 2.5: Injections to the local reflex on the elbow.....	20
Figure 2.6: Injection into the intramuscular spine. Injections low back into musculus erector spinae left and right	21
Figure 2.7: Injection to ligaments and tendons.....	21
Figure 2.8: Knowledge	32
Figure 4.1: Pie chart of gender percentiles of participants in the study	39
Figure 4.2: Knowledge of biopuncture.....	42
Figure 4.3: Application of biopuncture in an acute condition	43
Figure 4.4: Application of biopuncture in a chronic condition	44
Figure 4.5: The use of biopuncture as an adjunctive therapy by homoeopaths in South Africa	44
Figure 4.6: Biopuncture conflicts with traditional homoeopathic philosophy.....	45
Figure 4.7: Administration of Biopuncture as an adjunctive in scope of practice.....	45
Figure 4.8: Good patient management.....	46
Figure 4.9: Use of biopuncture in practice.....	46
Figure 4.10: Medical aid payment for biopuncture treatment	47
Figure 4.11: Time taken for consultation	49
Figure 4.12: Application of the four phase method.....	51
Figure 4.13: Musculoskeletal system illness/condition	51
Figure 4.14: Ampules used in the treatment of respiratory system illness.....	52
Figure 4.15: Ampules used in the treatment of gastrointestinal illness.....	53
Figure 4.16: Ampules used in the treatment of neurological illness	54
Figure 4.17: Ampules used in the treatment of urogenital system illness.....	54

LIST OF TABLES

Table 1.1: Summary of the chapters	4
Table 2.1: Biopuncture remedies compared to corticosteroid injection or NSAIDs ..	24
Table 2.2: Factors that influence perception	31
Table 4.1:A summary of current acquired qualification.....	39
Table 4.2: the number of years in practice	40
Table 4.3. The provinces where homoeopaths have established their practices	40
Table 4.4: Method of acquiring the knowledge.....	41
Table 4.5: The definition of biopuncture	41
Table 4.6: Perception and attitude toward biopuncture	42
Table 4.7: Application of biopuncture in an acute condition	43
Table 4.8: Years using biopuncture in practice	47
Table 4.9: Frequency of therapy sessions for an acute condition	48
Table 4.10: Frequency of sessions for a chronic condition.....	48
Table 4.11: Prescribing biopuncture only	49
Table 4.12: Comparison on data of variables to gender*	58
Table 4.13: Variables comparison to years in practice in homoeopathy	59
Table 4.14: Cross tabulation: How many years have you been in homoeopathic practice * Do you use biopuncture in your practice? (if other please state elaborate).....	60

LIST OF APPENDICES

Appendix A: Email cover letter and consent	84
Appendix B: Letter of information	85
Appendix C: Questionnaire	88
Appendix D: Letter to Dr Lamula requesting permission to use questionnaire	95
Appendix E: Demographics	96
Appendix F: Injectable ampoules	98
Appendix G: Editing certificate	100

LIST OF ACRONYMS AND DEFINITIONS

Abbreviations

AHPCSA	Allied Health Professions Council of South Africa
DIT	Durban Institute of Technology
DUT	Durban University of Technology
HAS	Homoeopathic Association of South Africa
UJ	University of Johannesburg
ULD	Ultra-low dose remedy

DEFINITIONS

Allopathic medicine:

A therapeutic system in which a disease is treated by producing a second condition that is incompatible with or antagonistic to the first (Stedman's, 2005).

Allopathy:

A system of medical practice which treats disease by conventional means; with the use of treatment (drug/surgery) that produces effects different to or incompatible with those produced by the disease.

Allied Health Professions Council of South Africa (AHPCSA):

This is a statutory council for Natural Health, responsible for the promotion and protection of the health of the population of South Africa and effects this by regulating and setting standards for our registered profession, under act 63 of 1982.

Alternative medicine:

Any therapy not regarded as orthodox by the medical profession.

Complementary medicine:

Any therapy not regarded as orthodox by the medical profession, which can be used alongside orthodox medicine in treatment of disease.

Classical homoeopathy:

A form of homoeopathy that involves extensive questioning of the patient by the practitioner, to determine the single remedy for that patient.

Good manufacturing practice (GMP):

This is a term that is recognised worldwide for the control and management of manufacturing and quality control testing of foods and pharmaceutical products

Health Products Association of South Africa (HPA):

The Health Products Association of South Africa represents the manufacturers of complementary medicines in South Africa.

Holistic approach:

An approach characterised by the treatment of the whole person, with emphasis on the importance on the whole and the interdependence of its parts, and where the mental and emotional aspects of a patient's health are taken into account along with physical symptoms

Homoeopathy:

Homoeopathy is a system of therapy developed by Samuel Hahnemann based on the "law of infinitesimal doses" and *Similia similibus curentur* (likes are cured by likes), which holds that a medicinal substance that can evoke certain symptoms in healthy people may be effective in the treatment of illnesses having symptoms closely resembling those produced by the substance given to healthy people – derived from the Greek words homoios, meaning like or similar and pathos, meaning suffering (Stedman's, 2005).

Homoeopathic Association of South Africa (HSA):

The body representing registered homoeopaths and homoeopathic students, and their interests.

Homoeopathic medicine:

Homoeopathic medicine is a holistic system of treatment. The name 'homoeopathy' is derived from two Greek words, homeo (similar) and pathos (suffering); when combined the means "like disease". The system is based on the principle that substances which produce symptoms of sickness in healthy people will have a curative effect when given in much diluted quantities to sick people who exhibit those same symptoms (De Scheeper, 2001).

Homoeoprophylaxis:

The systematic use of homoeopathically potentised substance to prevent the development of the characteristic symptoms of infectious disease

Immune system:

An intricate complex of interrelated cellular, molecular and genetic components, which provides a defence (immune response) against foreign organisms or substances and aberrant native cells (Stedman's, 2005).

Knowledge:

Knowledge is the sum of what is known: the body of truth, information, and principles acquired by humankind

Mother tincture:

Liquid preparations resulting from the extraction of suitable source material in water-ethanol mixtures, which form the starting point for the production of most homoeopathic medicines (Swayne, 2000).

Minute doses:

The smallest dose of a homoeopathic medicine that will produce the desired therapeutic effect (Swayne, 2000).

Orthodox medicine:

Also called allopathic medicine, conventional medicine, mainstream medicine, and Western medicine. A therapeutic system in which a disease is treated by producing a second condition that is incompatible with or antagonistic to the first (Stedman's, 2005).

Orthodox medicine:

A system in which medical doctors and other healthcare professionals (such as nurses, pharmacists and therapists) treat symptoms and diseases using medicines, radiation, or surgery. Also called conventional medicine, Western medicine and allopathic medicine.

OTC homoeopathic medicine:

OTC (over-the-counter): Available without a prescription. OTC homoeopathic medicines are available without a prescription, simply "over the counter." OTC homoeopathic medicines are in contrast to prescription medication that requires a doctor's order/signature (MedicineNet, 2006).

Pearson's chi-square tests:

Statistical method to test whether two (or more) variables are: (1) independent or (2) homogeneous. The chi-square test for independence examines whether knowing the value of one variable helps to estimate the value of another variable. The chi-square test for homogeneity examines whether two populations have the same proportion of observations with a common characteristic. Though the formula is the same for both tests, the underlying logic and sampling procedures vary

Pilot Study:

A preliminary study to assess the validity of an intended future study (Fink, 1995).

Potentiation:

A multi-step process developed by Hahnemann (O'Reilly, 1997) by which the medicinal power (potency) of a homoeopathic medicine is released or increased, involving serial dilution with succussion, or using trituration or fluxion (Swayne, 2000).

Primary health care:

This is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work. It should form an integral part of the national health services, and the other levels of health care services should be designed to support the primary health care services (Chan, 2009).

Qualitative Research:

A research approach which seeks to discover information from a thorough interaction with the subject interviewed, and from this learn something new that will benefit greater society, and allow for generation of new understandings through insight into the subject matter (Ulin, Robinson, Tolley, 2005).

CHAPTER 1: INTRODUCTION

1.1 Introduction

The term 'biopuncture' was introduced in 1991 by Dr Jan Kersschot. Biopuncture is a treatment intervention which involves injecting natural medicine such as combinations of herbs and homeopathic products into specific areas or points. These injections aim to reduce pain in the injected area and stimulate the immune system function for rapid healing. This therapy may be used in the treatment of all diseases but documented uses include the treatment of sports injuries, musculoskeletal pain, inflammations, and allergies. Biopuncture is most commonly used to treat musculoskeletal complaints (Medinatura 2015). According to Stock *et al.* (2002) biopuncture has been adopted by homeopaths mainly in Germany and Europe. Baars, Adriaansen and Eikmans (2012) stated that 99.5% of homeopaths in 12 European countries perceive that they would be limited in their practice should they not be allowed to use injectables as a method of treatment. According to Heel Inc. (2012), a parenteral application remedy achieves the best therapeutic results because it is injected locally into the affected area. The result is an immediate reduction in pain. The injections are administered by the practitioner to ensure that the patient complies with the treatment regime. Homeopathic remedies were not recognised, or used as an injectable substance, for over 80 years in the United States of America (USA). In 2008 biopuncture therapy was adopted in medical professions mostly in northern parts of America and Europe and Asia (The International Academy of Biopuncture [IABP], 2011). The therapy is used mostly in sports injuries and is effective as an alternative therapeutic method instead of nonsteroidal anti-inflammatory (NSAIDs) and steroidal drug treatment. Biopuncture is becoming increasingly popular as an adjunctive therapeutic method in many homeopathic healthcare practices in South Africa (Wagner 2010). A study by Brown (2006) concluded that biopuncture was not commonly used as a therapeutic method amongst homeopaths up to and including the year 2006 in South Africa.

The IABP (2011) stated that biopuncture therapy is used worldwide in primary health care by specialists in sports medicine, orthopaedic surgeons, physicians, homoeopaths and in physical medicine rehabilitation centres. This suggests an increased awareness of biopuncture.

1.1. Importance of the study

There are currently limited sources of information on biopuncture. Most of the information on biopuncture that is in circulation is based on individual practitioners' business web pages and a book by the founder of biopuncture; Kersschot (Wolf 2010; Medinatura 2015). Wagner, Nye and Wolf are some of the practitioners who utilise biopuncture in practice in South Africa. A review of the current international literature has also revealed that there is little data published on biopuncture. The review of the available literature reveals a lack of information and lack of documentation of the experience of the use of biopuncture by homoeopaths in South Africa. This study focuses primarily on biopuncture, in order to acquire knowledge and perceptions of biopuncture amongst homoeopaths in South Africa and the application thereof in practice.

1.2 Aims and objectives

1.2.1 Aim

This research aimed to investigate the knowledge, attitudes, and perceptions of registered homoeopathic practitioners in South Africa regarding biopuncture treatment, and their clinical management of cases involving biopuncture. This was investigated using a questionnaire (Appendix C).

1.2.2 Objectives

- To determine the attitudes of homoeopathic practitioners with regard to biopuncture by means of a self-administered questionnaire.
- To determine the perceptions of homoeopathic practitioners with regard to biopuncture by means of a self-administered questionnaire.
- To determine homoeopathic practitioners' level and extent of knowledge of biopuncture by means of a self-administered questionnaire.

- To determine homoeopathic practitioners', use of biopuncture treatment in managing a clinical case by means of a questionnaire.

1.3 Method of research

This is a knowledge, attitude and perception/practices (KAP) type of study. Quantitative data was collected using a self-administered questionnaire. Sample selection was by means of convenience sampling. According to Kayne (2006), homoeopathic surveys and perception studies can contribute to improving practice, and in some cases may improve the effectiveness of homoeopathy. Ethical procedures were followed in the distribution and collection of the questionnaire. The data collected was analysed by a professional statistician using SPSS version 25®.

1.4 Delimitations of the study

Data collected was limited to the knowledge, attitude and perceptions and clinical cases of homoeopaths who participated in the study. The response rate was 35%. The study was limited to homoeopaths in South Africa.

1.5 Benefits of the study

The data collected will provide basic information on biopuncture and the experience of homoeopaths using it as a treatment, including the pitfalls and the benefits that biopuncture offers to homoeopathic practice. This information will contribute to an understanding of the role of biopuncture as a modality within the practice of homoeopathy in South Africa and so will contribute to the growth and development of the homoeopathic profession in South Africa.

1.6 Conclusion

This chapter has presented a general overview of the study, highlighting the aims, objectives, benefits and delimitations of the study. Table 1.1 shows the layout of the dissertation.

Table 1.1: Summary of the chapters

Chapter	Summary of content.	Pg. no.
Chapter 1	Introduction: The chapter provides a brief introduction to biopuncture and the rationale, aims and objectives, benefits and delimitations of the study	1
Chapter 2	Literature review: This chapter presents an overview of the literature on biopuncture. It elaborates on homoeopathy and the benefits of integration of the different therapies into a homoeopathic practice. This chapter also presents some case studies and uses of biopuncture. The final part of the chapter presents information on the knowledge, attitude and perception/practices (KAP) type of study.	5
Chapter 3	Research methodology: This chapter outlines the sampling method and size of the study. The steps/stages taken to conduct the research are presented, including distribution of the questionnaire, reminders, and collections of the responses to the questionnaire.	35
Chapter 4	Data Analysis: This chapter presents the data collected and analysis.	39
Chapter 5	Discussion: This chapter discusses the results in relation to the objectives of the study and the literature survey.	58
Chapter 6	Conclusions and recommendations This chapter presents the conclusions drawn from this study and recommendations of possible continuous improvement.	67

CHAPTER 2: LITERATURE REVIEW

This chapter will review the existing literature on biopuncture. There will be an explanation of homoeopathy, homotoxicology and other therapeutic methods which contribute towards the biopuncture technique. The benefits of integration of biopuncture into a homoeopathic practice will be discussed. Case studies and remedies commonly used in biopuncture will be presented. The final part of the chapter presents the knowledge, attitude and perception/practices (KAPs) definitions and procedures which will be used for this research study.

2.1 Homoeopathy

2.1.1 An overview of homoeopathy

Homoeopathy was established by Dr Samuel Hahnemann (1755-1843) in 1796 when he introduced the therapeutic principle of similars. According to Ericksen-Pereira, Roman, and Swart (2018), homoeopathy was introduced in South Africa in the early 1960s but the government only established a formal registration procedure in 1974. Homoeopathic practitioners in South Africa are certified and licensed primary contact practitioners. Homoeopathy is classified as a complementary medicine (CM) in South Africa. The Allied Health Professions Council of South Africa (AHPCSA) lists the scope of practice of a homoeopathic doctor as follows: *"to diagnose, and treat or prevent physical and mental disease, illness or deficiencies in humans; prescribe or dispense medicine; or provide or prescribe treatment for such disease, illness or deficiencies in humans"* (Allied Health Professions Council of South Africa [AHPCSA] 2018). The qualification in South Africa can be attained at the Durban University of Technology (DUT) (1989-present day) and the University of Johannesburg (UJ) (1993-present day). Biopuncture was introduced into the curriculum in the year 2014 at DUT, with a seminar and training. Du Plessis (2012) suggests that the use of complementary medicine and alternative medicine among the population is high and increasing worldwide in places such United states, Canada, Australia, Europe, Germany and South Africa.

2.1.2 Classical homoeopathic principles

The Homoeopathic Association of South Africa's (HSA) definition of homoeopathy is: "*Homoeopathy is a therapeutic medical system, which is based on the observation that substances that are capable of causing diseases of the mind or body in healthy people can be used in their diluted form as remedies to treat the similar disorder in someone who is ill.*" (Homoeopathic Association of South Africa [HSA] 2014).

The definition highlights some cardinal principles that are applied in classical homoeopathy, including:

- **Law of similars:** *Similia similibus curentur* is a Latin phrase which translates to 'likes may be cured by likes'. This law implies that when a healthy person is given a substance, that substance will produce symptoms. These produced symptoms are similar to those which would be expressed in certain disease conditions. The law of similars suggests that the same substance can cure those symptoms experienced by a diseased individual. This substance in diluted form is known as the simillimum remedy. The simillimum remedy picture is a reflection similar to most or all the disease symptom presented in an ailment. It reflects the totality of symptoms produced in a condition (Kayne 2003).

- **Law of simplex:** Only one single, simple medicament is to be administered in a given clinical case at a time, namely the simillimum remedy. The remedy reflects the totality of symptoms or the complete drug picture in the case (Chauhan and Gupta 2007).

- **Law of infinitesimal dose:** The greater the dilution of the remedy substance prescribed according to the law of similars, the greater the effect (Kayne 2003). This is achieved by potentisation. Potentisation (Figure 2.1) is a process whereby a crude substance is potentised, through a series of dilutions and successions (Vithoulkas 1980).

These principles are strictly followed in classical homoeopathy.

2.1.3 The homoeopathic prescription remedy

Homoeopathy is a natural treatment which acknowledges a person as a singular, sole being and applies a holistic healing approach. The homoeopathic practitioner has a consultation taking the clinical case of the patient, considering body, mind, and soul.

Based on observation and the totality of symptoms, an appropriate remedy is selected and given to the patient. The remedy could be a single remedy or a complex remedy depending on the complexity of the case. When a homoeopathic remedy is administered, the patient will experience a heightening of the disease symptoms, namely a remedy aggravation. This aggravation is an energy stimulant that activates immune function and thereafter healing and restoration of health occurs (O'Reilly 1996). Most allopathic (conventional) treatment serves to suppress the disease symptoms or palliate the disease. The pharmaceutical medicaments also often present side effects and are complicated to use. Homoeopathic medicines are potentised to ensure that there are no side effects after use of the remedy.

2.1.3.1 Single remedy

In classical homoeopathy, a single, minimal dose is prescribed. According to Hahnemann's *Organon* (1981), classical homoeopathy is based on a 'drug picture' to determine the appropriate remedy. When a homoeopathically prepared remedy is administered to a healthy person it will express symptoms. The produced symptoms are an indication for a cure of treatment when expressed in a diseased person, namely the *simillimum*. The selection of a single remedy requires careful observation and skill on the part of the physician. Once the appropriate remedy is selected the potency, or degree of dilution needs to be determined. This is based on observations made on the case.

2.1.3.2 Complex remedies

Clinical homoeopathy is known to involve complex or combination remedy prescribing. The use of complex remedies is not considered to be classical homoeopathy. Yasgur (1997) states that a complex remedy is a homoeopathic remedy that combines two or more substances. The combination could be helpful for the patient but the outcome can be unpredictable. Remedies may complement each other or cause aggravation or antidote each other. Should the patient have a severe aggravation it is impossible to be certain which remedy led to that. In such cases there is a challenge to select an appropriate antidote remedy. It is therefore important to know and be familiar with the different remedy interactions, for a more effective outcome. Some complex remedies can be self-prescribed and are readily available as over-the-counter medication (Broughton 2008).

A clinical picture is defined as the presenting pathological or functional disorder or existing syndrome named according to conventional medicine (Yasgur 1998). A complex remedy is prescribed based on the clinical picture, ready to assist in disease conditions such as Traumeel for arthritis, Insomnia complex for sleep deprivation or Cough Mixture for coughs and influenza. The complex remedy is a logical prescription in a complex case when the drug picture is not similar to a single remedy but showing similarity to more than one remedy. A disease can affect many organs concurrently therefore a complex remedy will extend to all the tissues and organs affected by the disease (Blessing 2011). According to Brown (2006), only 21% of South African homoeopathic practices prescribe a single remedy in clinical cases. This suggests that the majority of homoeopaths use more than one remedy in treatment. This is because a complex remedy is an umbrella to cover a range of disease symptoms and more applicable in this present industrial time. The complex remedy became a practical way to approach chronic cases in patients where the drug picture is not clear. It is impractical and time consuming to seek the simillimum in an instance when the patient has given an endless list of symptoms during a consultation. The best approach is to take the keynote symptoms which would lead to simillimum or complex remedy. Once the appropriate remedy is selected the potency, or degree of dilution needs to be determined. This requires expertise and experience.

2.1.3.3 Potentisation scales

Potentisation is a process where a crude substance is potentised, through a series of dilutions and succussions (Vithoulkas 1980). This process is to ensure that there are no side effects after use of remedy, by decreasing the toxicity of the substance. It also activates innate abilities of the substance associated with increasingly higher excited states, hence deep action body, mind, and soul (Munnis 2014). There are different dilution scales, which are applicable as suited to a case.

The decimal scale

The scale is denoted as a D or an X symbol. In the potentisation process dilutions are prepared by adding one part of the preceding potency to nine parts of dilute alcohol and succussing the bottle ten times at each stage (Gaier 1991).

The centesimal scale

This scale is denoted as a C symbol. In the potentiation process dilutions are prepared by adding one part of the preceding potency to 99 parts of dilute alcohol and succussing the bottle ten times at each stage (Gaier 1991).

Fifty millesimal scale

This potency was developed at a later stage and is used on sensitive patients. This scale is denoted by an LM symbol, and has a dilution ratio of 1:50 000. The potentiation process starts with a 3C substance, one part of which is combined with 99 parts of alcohol and succussed 100 times.

Figure 2.1 illustrates a model of potentiation.

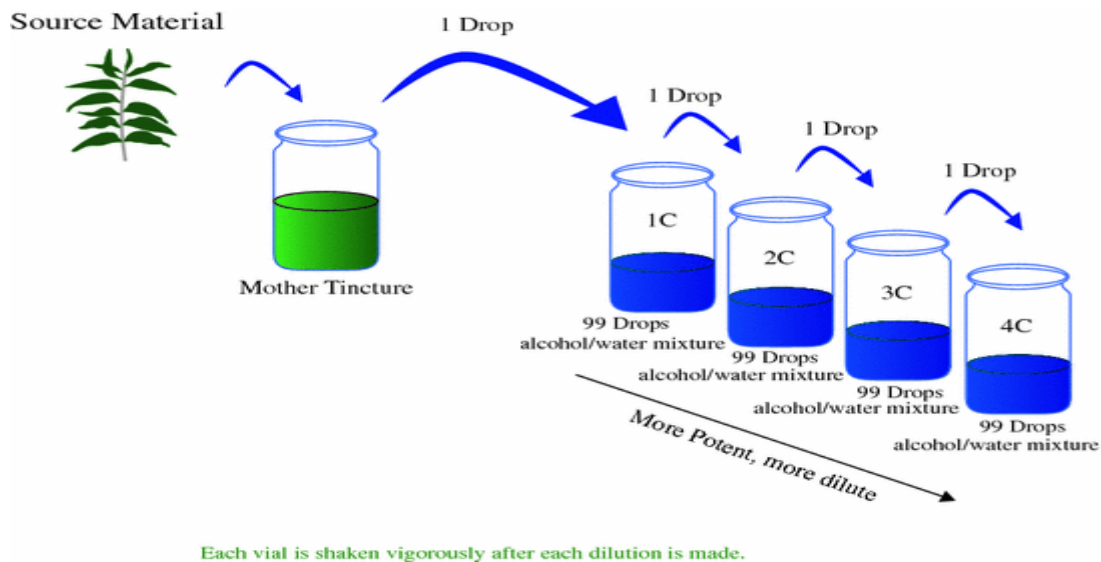


Figure 2.1. Potentiation in centesimal scale

Source: drkhushali.com/index.html (2019)

Potentiation involves: 1. Extraction – the source material (substance) is soaked in a medium like water or alcohol. This extract will be named mother tincture. 2. Succussion and potentiation – one part of the mother tincture will be diluted into a medium at the appropriate ratio as per the C or D scale. On each dilution succussion 10 times DM or 100 times C.

Once the basic principle is learned it will be a guide to the potency selection process. This may vary for each patient's sensitivity to remedies. The LM potency was established later for amongst other reasons, to decrease aggravation of remedy for sensitive patients. Homoeopathic remedies can be administered in different forms such as granules, pilules, eye drops, injections, and creams.

2.2 Homotoxicology

2.2.1 An overview of homotoxicology

Homotoxicology was formulated by Hans-Heinrich Reckeweg, M.D. in 1952. According to Heel Inc. (2005) he used his knowledge of homoeopathy and allopathic medicine to synthesis a bridge that combined knowledge. Homotoxicology was an extension of homoeopathy for the modern, post-industrial revolution world.

Definition of Homotoxicology: "The study of the influence of toxic substances on humans, and the removal of these toxins to regain natural regulation" (Schneider 2011). Reckweg developed a six-phase model of disease which assists in the diagnosis and treatment of the patient. The six phases are a tool to find the level of toxins in the underlying chronic condition.

2.2.2 The principles of homotoxicology

According to Heel Inc. (2005), an illness is caused by substances either introduced to the body from the external environment, known as exogenic homotoxins (e.g. mercury from fish and aluminium from cooking utensils, herbicides), or the internal environment, known as endogenic homotoxins (e.g. metabolites such as amyloid and lactic acid). When the products of homotoxins are not excreted, there is a gradual accumulation of toxins causing harm to the body. Disease is an expression of the accumulation of toxins in the body. At times when a patient is given treatment, the toxin accumulation hinders optimal healing. This creates then a need for detoxification, to achieve optimal healing when administering a medicament. Kersschot (2016b) shares a case study strategy for treating tension headache with the patient being seen weekly for an injection session.

The ultra-low dose (ULD) remedy was injected in the liver zone and the main lymph nodes in the area. Also, an ULD remedy was injected to the neck and head area to reduce the pain. "After four sessions, he was pain-free for six months." (Kersschot 2016a). Biopuncture applies principles which are a merger of the medical science of homoeopathic and homotoxicology (Heel Inc. 2003).

The phase theory

According to Schneider (2011), each disease processes through six-phases and the expression of symptoms is an attempt by the body to deal with toxins. When a pathogen is introduced to the body, its reaction is as follows:

Phase 1: Excretion – This is an attempt by the body to get rid of the pathogen. This is demonstrated with symptoms such as diarrhoea, vomiting, coughing or tears.

Phase 2: Inflammation – When the body fails to excrete the problem, the interruption manifest into a deeper systemic level resulting in infection or inflammation in the area. This phase presents with symptom of fever which is an attempt to neutralise the toxins in the body.

Phase 3: Deposition – The toxins start to accumulate as there is a failure to excrete the pathogen with its by-products. These pathogens are ever-present in the surrounding interstitial fluid of the cells. This may lead to chronic problems. The immune system is active at this point in an attempt to get rid of pathogens and restore balance and heal. According to Reckweg, a disease which has progressed from phase 1 to 3 is quickly curable and reversible with antihomotoxin remedy.

Phase 4: Impregnation – When the body has failed in the first three phases, the pathogen gains access to cells and connective tissue. The pathogen replicates and multiplies (i.e. toxin accumulation increases) making it harder to get rid of and restore health. An example of such illness is autoimmune deficiencies, glucose intolerance, and malabsorption disorders. The patient will present with symptoms but no clear signs are presented on a laboratory test.

Phase 5: Degeneration. – At this phase, normal cellular functions and processes have decreased due to the intrusion of the pathogen. There are signs present on laboratory test such as increased glucose levels showing diabetes mellitus. With the administration of a homoeopathic/antihomotoxin there is the possibility of reverse-phase disease progression. There is a continuous large cellular group degeneration within the organ resulting in complications.

Phase 6: Dedifferentiation or neoplasm – In the final phase two possible outcomes of the disease are possible, depending on the toxin build-up.

- The first, cellular damage leadings to tissue damage which progresses to organ damage.
- The second with the continuous state of inflammation and cellular change/differentiate, can possibly lead to cancer.

The remedy prescribed will assist in stimulating the body's detoxification function, depending on the phase of disease. The practitioner also advises and emphasises a healthy lifestyle to assist flushing out of built-up chemical toxins.

2.2.3 Antihomotoxin remedies

These remedies conform to the remedy preparation methods of the homoeopathic pharmacopoeia, but some of the ingredients are different to homoeopathic complex remedy prescriptions. The remedy is prescribed in an indication-oriented approach similar to most complex remedies such as Hay F[®] for hay fever and allergies. Antihomotoxin remedies are substances/complex mixtures of low potencies. According to Heel Inc. (2003) these remedies are not like homoeopathic remedies because they have infused varies dilutions of remedies which include potentised catalysts, stimulant regulatory of immune system (immunomodulatory), and vitamins. According to Heine (1997), the specific immune response can be stimulated by low potency remedies ranging from D3 to D14. Antihomotoxin remedies have the ability to stimulant metabolic functions. According Heel Inc. (2005) specific antigen reactions cannot be triggered by high potencies. High potencies (above D14) are useful as an intermediary catalyst to stimulate general immune system function as illustrated in Figure 2.2. This is the reason for developing antihomotoxin remedies. Heel Inc. (2005) also elaborates that low 3D to 14D potencies can activate a specific enzyme system compared to the general conventional dilutions.

The remedies are mainly for the following purposes: to reduce and immobilise homotoxin activates; dispose of all homotoxins, and restore normal cellular regulatory function.

2.3 Biopuncture

There is confusion at times amongst homoeopaths regarding the definition of biopuncture. Stock *et al.* (2002) describe it as a homoeopathic injectable. Kersschot (2014) defines biopuncture as an injection of medication into specific zones or points of the body, based on conventional and functional diagnosis to support bioregulation. Biopuncture is classified as a bioregulatory therapy, in which a stimulus by injection to a specific zone is given to induce a physiological reaction to achieve autoregulation. A series of injections is applied to achieve the desired therapeutic effect, over two or more therapy sessions.

According to the IABP (2011), biopuncture therapy is used worldwide in primary health care by specialists in sports medicine, orthopaedic surgeons, physicians, homoeopaths and in physical medical rehabilitation centres. It is mostly used to treat sports injuries, musculoskeletal pain, inflammation, and allergies.

Biopuncture treatment has been integrated into homoeopathic practice. In 2008 it officially became one of the most frequent treatments utilised for sports injuries in the USA (International Academy of Homotoxicology [IAH], 2008). Biopuncture is designed for holistic healing and treating the body, to facilitate recovery. It provides a bridge between homoeopathy and allopathic medicine (Kersschot, 2014).

2.3.1 Principle action of the remedy

According to Heel Inc. (2000), the principle action of homotoxicological remedies is immune system regulation. The immune system and its regulation and memory are equated to or equivalent to spiritual-mental self, the ego and vital force. The holistic being is affected when immunity is not properly functioning. Normally the immune system consists of a non-specific response or a specific immune response to complement and acute phase proteins or phagocytes. The response is mediated by lymphocytes.

These are some of the immune system cells:

- CD4 cells. The CD4 cells consist of subclasses of functional cells such as T-helper 1, T-helper 2, T-helper 3 and T-helper 4.
- CD8 cells.
- Large Granular Lymphocytes (Including the Natural Killer Cells)

An antigen is any substance with an ability to evoke an immune response from the immune system (Marieb, 2015). When an antigen is introduced into the body, it will be mediated by non-immune specific cells: lymphocytes and macrophages. The macrophage are cells which will engulf and digests the antigen, in attempt to dispose or minimise the harm of the antigen(phagocytosis). The macrophage will also act as the antigen-presenting cells by introducing fragment of the antigen to specific immunity cells. The CD4 and CD8 cells are activated by antigen-presenting cells (APC). The histocompatibility complex molecules I or II (MHC I or II), are responsible for binding the presented antigen fragments derived from APC and display them on the cell surface for recognition by the appropriate T cells (Murphy *et al.*, 2010). The APC can also be processed through other molecules like CD1 in the intestinal epithelial cell. When the MHC I activates CD8 cytotoxic cells, the MHC II activates CD4 helper cells and the CD1 from the Intestinal Epithelial Cells (IECs) which activate CD8 suppressor cells (Heel Inc. 2005).

The chronobiology oscillation

T-helper 1 cells secrete the cytokines TNF and interferon-gamma. The secreted cytokines activate lymphocytes, which are important in cellular immunity. T-helper 1 cells are responsible for the general inflammatory processes. T-helper 1 cells also because symptoms experienced in diseases such as autoimmune diseases, rheumatoid arthritis, and inflammatory bowel disease. T-helper 2 cells secrete the cytokines IL-4, 10, 5, and 13; these cytokines are involved in the formation of antibodies. They also mediate the allergy phenomena when there is a pathogen present. There is a constant chronobiology oscillation between Th0, Th1, and Th2 cells which is similar to other regulatory systems in the body. An example of this is the Th1/Th2 oscillation which is controlled by the neuroendocrine system and follows a diurnal rhythm.

As stated by Heel Inc. (2005): "Another mechanism which achieves this Th1 and Th2 oscillation is the inhibitory effect the Th1 and Th2 secreted cytokines will have on each other. Another cell which can also modulate the normal oscillation is the Th3 cell". Th3 cells secrete the cytokine transforming growth factor beta, (TGF- β) and regulate the balance between Th1/Th2. The antigen presented will dictate which response (a Th1, Th2 or Th3) will be generated. The potencies ranging from 1D to 14D will generate a Th3 response and Th2 response to a lesser extent (Cesnulevicius 2011).

The concepts of antigen patterns and presentation

To activate the bystander reaction, a small dose of the antigen or remedy dilution such as a plant extract, animal venom or a nosode is administered. Once this dose is in the APC, it will present the antigen to the lymphocytes in the GALT through MCH or CD1 binding as indicated Figure 2.2. in the top row. The processed antigen is then presented as a pattern outside the APC. Each remedy/antigen has its own pattern. This is how the remedy stimulates the immune functions. The antigens (patterns of the remedy) will activate the prolymphocytes of the Th3 cell types. Each formed antigen will activate a matching Th3 cell in the differentiated population of the Th3 cell (for example *Bellis perennis*, *Arnica*, and so forth). These lymphocytes will emigrate into the lymph nodes, into the Peyer's patches and proliferate billions of copies in a process called cloning. It is not necessary to know the specific antigen of the disease as the similarity of the remedy will elicit a response of immunity sufficient for cure. (Weiner *et. al.* 2005).

Chemotaxis and suppression

The cloned Th3 cells respond by suppressing the inflammation caused by the Th1, Th2 and Th4 lymphocytes. This will restore the normal oscillation and balance of Th1 and Th2 cells. This is the application of the law of similars; each Th3 cell for remedy, for instance, *Arnica* or Traumeel® will have a corresponding Th1 and Th2 cells similar to its pattern which would dispose and eliminate of the antigen (Porozov *et al.* 2004).

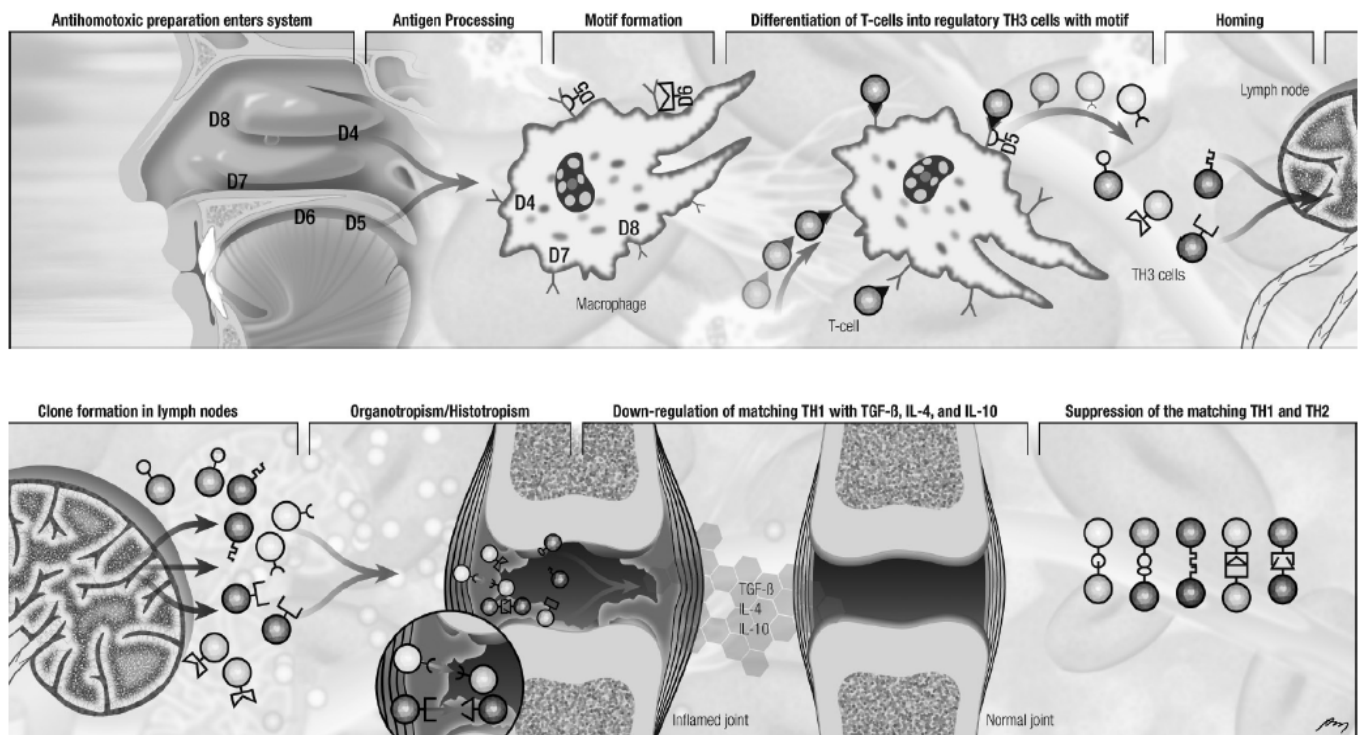


Figure 2.2: The bystander reaction as a model for a principle of remedy action
 Source: Heel Inc. (2005)

As seen in the top row of the illustration in Figure 2.2, the remedy is introduced through the nose. The result is stimulation of macrophages to form antigens. The antigens migrate into lymph nodes. The bottom row illustrates the cloning of antigen Th3 cells which then find chemotactically inflammatory lymphocytes (Th1 and Th2) with similar antigen motives and suppress the release of TGF-b.

2.3.2 Substances injected

The injectable remedies are mostly prepared from botanical substances/plants. Each injection dosage is a preparation of Ultra-Low Dose (ULD) combination of homeopathic remedies (2 ml) and either dextrose or Lidocaine (1 ml) and NaCl 1 ml. Lidocaine 0.2% and dextrose 10% are added to the complexes in a low concentration so that there will be no side effects. Lidocaine 0.2% are mainly for anaesthetic purposes, and can be adjusted based on the sensitivity to pain of the patient. Dextrose 10% will stimulate the production of growth factors and the proliferation of fibroblasts cells to promote healing. Growth factors and fibroblasts promote cellular restructure, regeneration, and healing.

The (IAH) (2008) states that there are four phases involved in administration of the treatment. Treatment is weekly until the patient is healed. The main substances in these injectable which are the ULDs are prepared according to the German homoeopathic pharmacopoeia. An ULD is a homoeopathic complex or antihomotoxin remedy. The ULD substances are potentised by a series of agitations and dilutions (Figure 2.1). The dilutions most frequently used in the biopuncture ULDs are D1 and D12. Homoeopathic remedies have been proven to be effective and safe for use.

2.3.3 Biopuncture therapy injection techniques

➤ Neural therapy

These involve injections of local anaesthetics. These injections also detoxify by regulating modulators of neural information. These are used in biopuncture at the convenience or preference of the practitioner, to reduce the painful effect of injections (International Academy of Homotoxicology [IAH] 2008)

➤ Mesotherapy

Mesotherapy was developed in 1958. This is a therapeutic method using short needles to administer medicament. The short needles allow for a superficial dermal injection. The medicament injected consists of an anaesthetic and a penicillin which is not similar to that used in biopuncture. Mesotherapy is popular in cosmetic surgeries for lipo-reduction in the abdominal areas and extremities, as well as to reduce cellulite and wrinkles using botox. Biopuncture uses similar short needles to administer the remedy dosages (Kersschot, 2014.).

➤ Prolotherapy

This therapeutic method is the use of dextrose with a phenol-based solution. This is injected to treat injuries of connective tissue such as ligament and tendons. Dextrose is included in each biopuncture dose preparation (IAH 2008.).

The consolidation of these techniques allows for the delivery of a medicament into specific tissue, organ, ligament or joint (Kersschot, 2014.). According to Baars, Adriaansen and Eikmans (2012), injection therapy offers direct and immediate reduction in pain in the affected point and adjacent areas.

2.3.4 Route of drug administration

According to the IAH (2008), biopuncture offers intensive therapy as it is administered by injection and offers new possibilities for the physician. Biopuncture improves the functionality and life quality of patients with severe-mixed chronic pain (Heel 2016). This is because an injection ensures patient compliance as it is administered by the practitioner as prescribed. Injection therapy offers a remedy that is not changed by gastric juices or reduced in concentration by the first bypass mechanism compared to oral administered remedies. An injection to the local area applies treatment intensity to a selected area, which is not achieved by oral administration (Baars and Ellis 2010). Although injection seems to have a rapid effect, some have experienced undesired effects such as pain, swelling and bruising due to irritation at the site of insertion of the needle (ECHAMP 2007). In oral administered remedies such adverse reactions are not experienced.

Administration of an injection has a deeper influence on the muscle by means of immediate distribution of medicament compared to an ointment. The ointment does not act straight away on deeper tissue as absorption from the surface might take long and only absorption to the skin is deep as 2cm in to the area. An injection into a trigger point of the pain in the quadriceps will radiate to eliminate knee pain. The injection provides an indirect response to distant tissue cells (IAH 2008). Injections are able to be administered when the patient cannot take oral treatment such as when in a comatose state or vomiting. According to Stock *et al.* (2002), oral administration of the same remedy as an injection does not produce as high a tissue concentration reaction as an injection would to the targeted area such as to the intra-articular joint of a knee injected with Traumeel® or Zeel® which is effective immediately in reduction of pain. Stock *et al.* (2002) concluded that 72.8% of practitioners prefer the use of injection as it ensures a more focused administration to multiple points in an area, while 57% of practitioners stated it offers a controlled therapeutic environment and 77% doctors found it to improve the effect of the remedy. A study by Berna *et al.* (2020) found that about 40% of patients with arthritis would prefer practitioners to prescribe an injection as a treatment because in this way they will not forget their medicament.

2.3.5 Four methods of injection

The injection is administered according to the presenting clinical symptoms. There are four different methods to inject the medicament. When injecting into the surface of the skin the practitioner must use the pincer palpation technique. This means that the practitioner takes the muscle between thumb and second finger of the left-hand. The left hand is used to palpate and lift the surface of the area to be injected then the right hand is used to inject the medicament (Figure 2.3) Asher (2016).

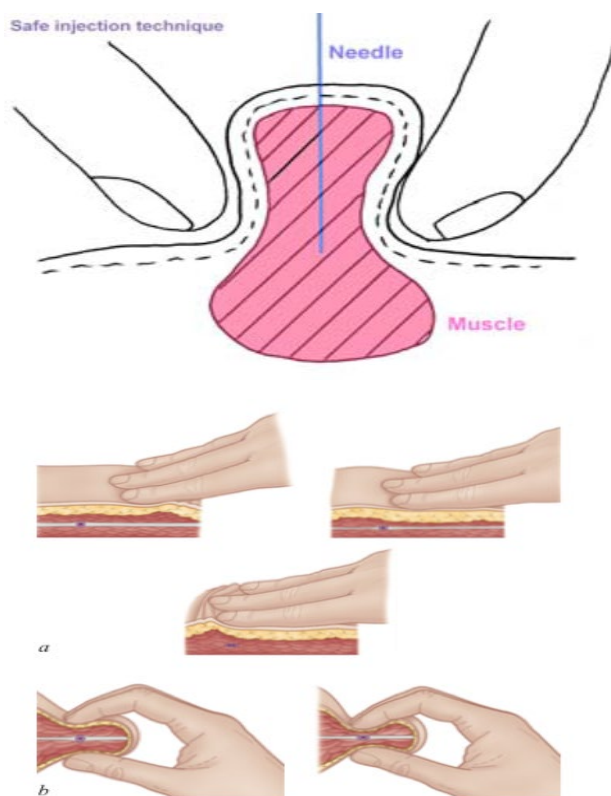


Figure 2.3: Pincer palpation for intramuscular injection
Source: Asher (2016).

Asher (2016) states that the benefit of the pincer palpating technique is that it lessens the pain experienced on needle insertion and ensures that no deep organs are penetrated on injection. The needle injection is inserted into the pain zones or trigger point. This ensure the medicament is evenly disturbed on the surface area. The multiple point injection as shown in Figure 2.5 to Figure 2.7



Figure 2.4: The method used to find the pain point before injection is administered
Source: IAH (2008)

1. Subcutaneous injection. This is the simplest technique to master and easily apply without experience. This is a superficial injection under the skin. These are used to treat acute disease. The picture below demonstrates this technique (Figure 2.5).



Figure 2.5: The dots indicate local points of inserting the Injection. (Left) Elbow and (Right) Neck
Source: IAH (2008) and Kersschot (2014)

2. Intramuscular injection. This is a deep injection to the muscles, as illustrated in Figure 2.6.

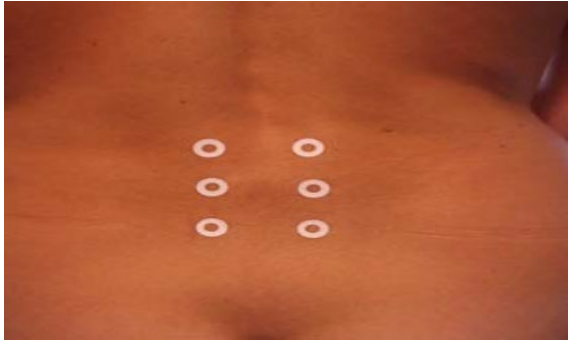


Figure 2.6: Injection into the intramuscular spine. Injections low back into musculus erector spinae left and right

Source: IAH (2008)

3. Injections around the tendons. An injection into the tendon sheaths or bursae of soft tissue (Figure 2.6).



Figure 2.7: Injection to ligaments and tendons

Source: Kersschot (2014) and International Academy of Biopuncture (2010)

4. Injection into the ligament. This is an injection into enthesis of tendons or bone or ligaments. In an interview on 3 June 2019, Dr Nienaber stated that it is important to be familiar with anatomy and conduct good palpation of the area as in some cases complications of deep needle penetration or improper injection can result in nerve pain, or internal bleeding if blood vessels are punctured.

2.3.6 The therapeutic phases of drug administration

When biopuncture treatment is administered, a specific technique is followed which involves four phases Kersschot (2015). These are applied for best therapeutic benefit of the patient.

2.3.6.1 Phase 1

The treatment Lymphomyosot[®] is injected to improve lymphatic drainage, so as to improve detoxification of any toxin. The remedy also stimulates non-specific immune defence. This phase is important for sensitive patients as preparation for the specific remedy, and to ensure better absorption of the remedy. This is the application of antihomotoxin.

2.3.6.2 Phase 2

The remedy indicated in this phase is Traumeel[®]. Traumeel[®] treats injuries, inflammation, and degenerative conditions. The main purpose for injection of a Phase 2 remedy is to stimulate immune function and reduce inflammation.

2.3.6.3 Phases 3

This is when a specific remedy to treat the condition of patient illness and complaint is injected. For instance, one commonly prescribed remedy is Spascupreel[®] for muscle spasm.

2.3.6.4 Phase 4

In this phase a remedy which will support cellular and organ function is injected. Such remedies include Zeel[®] or any remedies of the Compositae class like Discus Compositum[®] for instance.

These four phases should be applied in a progressive manner. Once the basic principle is learned this is used as guide to phase application as each case is different application (Phase 1 + Phase 2 + Phase 3 + Phase 4 or Phase 1 + Phase 3).

In an email 30 January 2020 Dr Nienaber provided a clinical case as an example of the application of the four phases of Biopuncture injections:

60-year-old patient (Ann), who has been treated by a homoeopath for past 3 years. The patient was booked to have a hip replacement in August 2017. On initial consultation in June 2017 Ann presented with symptoms of fatigue, mild fever, nausea and headaches. On physical examination, Ann had jaundice and right upper quadrant tenderness and further tests results were as follows positive for Hepatitis A, FBC was in the normal range, GGT was 107 u/l (very high) AST 39 u/l (also high).

Ann's physician consulted with the homoeopathic physician and were both in accord with postponing the appointment for hip replacement. I [Dr Nienaber] requested one month so that I could treat the patient with some biopuncture and then the physician could decide if the operation should be rescheduled or not. The case treatment management as follows: (Phase 1 + Phase 2 + Phase 3 + Phase4).

Week 1: Monday - 2 ampoules of Lymphomyosot® injected substernal over the liver area.

Friday - same as above

Week 2 to Week 4: 1 ampoule of Traumeel® every Monday and Friday injected in the same area.

By week 3: The patient did not have any symptoms present.

Week 5 :1 ampoule of Coenzyme comp®.

Retested the following day the result was much improvement on the liver function. The enzymes GGT was 50 u/l, still slightly high but much better and the AST was normal. The patient was able to have the operation on the scheduled day and recovered very well.

2.3.7 Biopuncture as an alternative to analgesics treatment

Analgesics such as opioids, cortisone, and NSAIDs, amongst other medications, are frequently administered to reduce pain. When an analgesic is administered some of its effects on the central nervous system include sedation, pupillary constriction, respiratory depression, nausea and vomiting, and mood changes. They also inhibit gastric juices (pepsin) secretions. These medications, if not used with caution, have the potential to produce cardiac arrhythmias (Dreyer *et al.* 2012). Analgesics reduce pain but do not necessarily accelerate the healing process. Analgesics are often prescribed in recreational sport injuries.

Table 2.1: Biopuncture remedies compared to corticosteroid injection or NSAIDs

Precautions/warnings related to:	Traumeel® injection	Corticosteroid injection	NSAID oral.
Patient at increased cardiovascular disease	No known adverse effect (AEs) or disease interaction facet injections.	It must be used with caution in patients with congestive heart failure, hypertension or kidney problems	It may induce serious side effects such as heart attack or stroke, even death.
Patients with uncontrolled diabetes.	No record of AEs or disease interaction.	Might increase blood glucose.	It does not directly affect blood glucose levels. It can lead to diabetic nephropathies.
Damage to joint tissue	None	The intra-articular injection might damage tissue joint.	None
Injection near the tendon.	It is not detrimental to tendon or adjacent areas.	Potential to rupture tendons	Not applicable

Source: Medinatura (2015)

In a comparative study in the treatment of epicondylitis, biopuncture was found to be a superior cure to NSAIDs. According to Birnesser *et al.* (2003), a non-randomised study was conducted over 2 weeks with 184 patients who were diagnosed with epicondylitis from 38 primary care centres in Germany and treated with biopuncture (Traumeel®) or non-steroidal anti-inflammatory drugs (NSAIDs). The biopuncture (Traumeel®) was more effective than non-steroidal anti-inflammatory drugs (NSAIDs) in pain management and restoration of mobility patients. The study concluded that 71% of patients treated with Traumeel® improved compared to only 41% of the patients treated with NSAIDs.

When biopuncture treatment is compared to treatment with cortisone it is evident that cortisone results in quick relief of symptoms but with only temporary duration of benefit. Cortisone can have adverse effects on healing in that it can cause collagen necrosis at the injection site as well as bone fragility after prolonged use (Hauer *et al.* 2009; Weinstein 2010). Biopuncture is safe to use, unlike NSAIDs which may cause gastric bleeding and complications (Musumba *et al.* 2012).

2.3.8 Therapeutic benefits of biopuncture by review of case studies

A complex is made from a combination of single remedies. The single remedies are selected for their known keynotes of symptomology and interactions with other remedies. A keynote symptom is so apparent or striking that it strongly suggests or points to a single remedy (Yasgur 1997).

After the application of an injection there is a reaction phase in biopuncture which is known as a homoeopathic aggravation. The treatment has to be repeated (sometimes "layer by layer") until a complete cure is established. Most treatment protocols include Traumeel®, Zeel®, Spascupree®, and Lymphomyosot® injection solutions. The following is a list of remedy complexes and their known keynote symptomology.

2.3.8.1 Lymphomyosot®

The remedy provides temporary relief of oedema associated with minor diseases including bronchitis, colds and flu, and eczema. It is a treatment used in secondary lymphoedema due to lymphadenectomy in cancer patients.

Lymphomyosot® is a complex remedy which consist of the following remedies:

- *Geranium robertianum* 4D is used for treatment of symptoms of diarrhoea, haemorrhages
- *Nasturtium aquaticum* 4D is used for treatment of symptoms of gastric disorders, stomatitis
- *Ferrum iodatum* 12D misused for treatment of symptoms of glandular enlargement, emaciation
- *Juglans regia* 3D is indicated for sharp occipital pain, facial acne
- *Teucrium scorodonia* 3D relieves symptoms of chronic rhinitis and bronchitis)
- *Veronica officinalis* 3D of for treatment of symptoms of chronic bronchitis, pruritus

- *Equisetum hyemale* 4D is indicated when there are symptoms of sharp burning pain in the urethra while urinating
- *Fumaria officinalis* 4D is indicated for hepatic disorders, eczema
- *Natrum sulphuricum* 4D is indicated for asthma; symptoms are worse in rainy weather
- *Pinus sylvestris* 4D relieves stiffness, cramps in calves
- *Gentiana lutea* 5D is indicated in ravenous hunger, nausea, stomach ache
- *Aranea Diadema* 6D is indicated for diarrhoea, susceptibility to dampness and cold
- *Sarsaparilla* 6D may improve symptoms of colic with backache, cystitis
- *Calcarea phosphorica* 12D reduces symptoms of joint stiffness and pain which are worse with changes of weather
- *Levothyroxine* 12D aims to promote oxidation
- *Myosotis arvensis* 3D is indicated for chronic bronchitis, vomiting during cough (Heel Inc. 2005)

A study using a murine model of lymphoedema found Lymphomyosot® to be an effective remedy for the treatment of oedema in injuries and post-operation. There were three groups of mice with lymphoedema which received different dosages of Lymphomyosot® injected with the purpose of stimulating lymphangiogenesis towards the capillaries and reduction in symptoms of swelling. The results proved that Lymphomyosot® is effective in the treatment of lymphoedema: there was regulation of the inflammation, tissue repair, and a decrease in fluid accumulation in the interstitial fluid. Lymphomyosot® did not promote regeneration of lymphatic vessels to capillaries or dissected lymph nodes areas. The results display potential effectiveness in the use of Lymphomyosot® in the treatment of a post-operation recovery of cancer patients with lymphoedema (Keim *et al.* 2013). Lymphomyosot® is a complex used for basic drainage to improve lymphatic outflow from organs and tissues. “As a huge amount of immunocompetent cells are located in the lymphatic system, regulation of their immune responses by Lymphomyosot is the very essence of the treatment applied to different chronic pathologies” (Ratiani, Terunashvili and Sanikidze 2012). This remedy has detoxification and anti-inflammatory effects with a good tolerance profile making it safe to use in infantile diseases (Popovich 2015).

A partial report exists on the treatment of oedema and swellings of thrombotic or inflammatory disease with Lymphomyosot® injections. This observation was made in Ukraine 8 weeks' treatment n = 150, > 18yr old patients. They were diagnosed with "oedema and swelling of thrombotic or inflammation, localised or general lymphatic vessels and nodes conditions, or allergic diseases" (Moyseyenko and Corgiolu 2009). The effectiveness was subjective and observational on physical function and analysis. The subjects for the study received injection; in the first week they reported an improvement, it was projected that this improvement would continue (Moyseyenko and Corgiolu 2009). The rest of this data not been translated into English was delivered at a congress. This further demonstrates the need for documentation of the use of biopuncture in clinical practice in a South African context. It is assumed that the results were similar to the model of murine lymphoedema, the methods in treatment being similar in both studies but with different subjects (Keim *et al.* 2013).

2.3.8.2 Spascupreel®

This remedy complex consists of 11 single remedy substances, namely:

- *Aconitum napellus* 6D is indicated for abdominal colic sensitive to pressure, inflammation, numbness
- *Ammonium bromatum* 4D improves symptoms of spasmodic cough
- *Colocyntis* 4D reduces symptoms of cramp-like hip pain, muscular contraction, sharp pain in the abdomen
- *Atropinum sulphuricum* 6D relieves symptoms of spasm of smooth musculature, pertussis
- *Gelsemium sempervirens* 6D is indicated for cramp in muscles of forearm, trembling and weakness of all limbs
- *Magnesia phosphorica* 6D reduces symptoms of muscular cramps with radiating pain, hand and arm weakness, fingertips numb
- *Veratrum album* 6D is indicated for cramps in calves, sore and tender joints
- *Passiflora incarnata* 2D is used as an anti-spasmodic and for restlessness
- *Cuprum sulphuricum* 6D is used in cramping of smooth and striped musculature, pertussis, bronchial asthma
- *Chamomilla* 3D is indicated in flatulent colic, dry and tickling cough (Heel Inc. 2005).

The indications for use include general muscle spasms and relieve smooth muscles spasm in the gastrointestinal and urogenital tract, and improvement in the symptoms of repetitive strain injury (RSI) (Rautenbach 2008). The remedy is specialised to treat all and most conditions of muscle cramping and spasms. According to Jasemian (2016), the remedy is used by Canadians to treat 60% of cases of dysmenorrhoea. Spascupreel® is considered for pain relief, tolerability and enhancing the quality of life.

At a mom (female patients) intervention prospective study with n = 698 participants was conducted for 8 weeks regarding the usage and therapeutic efficacy of Spascupreel®. The patients (moms) were diagnosed with spasmodic conditions such as abdominal cramps (n = 29), lower urinary tract spasms (n = 170), primary dysmenorrhoea (n = 123), trapezius muscles spasms (n = 11), uterine spasms (n = 109) and other diagnoses (n = 458). The researchers found that 80% of the patients had improved within two weeks of treatment. All the patients were treated by homoeopathic practitioners in Germany. They prescribed a suitable remedy and administered biopuncture as an adjunctive therapy. Each patient was given a series dosage of injections of Spascupreel® for a period ranging from two to eight weeks depending on the prognosis of the disease. Reports showed that patients had rapid pain relief in acute chronic conditions with improvement in functionality with good quality of life. The efficacy of Spascupreel® was rated as 76% in the treatment of the conditions the patients had (Reus and Weiser 2000.)

2.3.8.3 Zeel®

According to Heel Inc. (2005), Zeel® consists of 13 remedies for relief of symptoms of pain, articular stiffness, and inflammation:

- *Arnica montana*, radix 4D reduces symptoms of soreness of back and limbs, rheumatism
- *Rhus toxicodendron* 2D is indicated in rheumatic pain in tendons and ligaments, better with motion
- *Sulphur* 6D relieves symptoms of rheumatic shoulder pain, rheumatic gout, stiffness of knees and ankles
- *Sanguinaria canadensis* 4D is indicated for neuralgic, rheumatic pain of joints and muscles
- *Cartilago suis* 6D is indicated for arthritis, coxitis

- *Embryo totalis suis* 8D assists revitalisation
- *Funiculus umbilicalis suis* 6D is indicated to support connective tissue
- *Placenta suis* 6D assists in reducing circulatory disturbances
- *Dulcamara* 3D assists in paralysed limbs, rheumatism after skin eruptions
- *Symphytum officinale* 6D reduces symptoms such as soreness of periosteum, neuralgia of knee
- *Coenzyme A* 8D assists in coenzyme for transacetylation
- *α-Lipoicum acidum* 8D assists as a coenzyme in decomposition of pyruvic acid
- *Natrum oxalaceticum* 8D is indicated for sensitivity to dampness and wind (Heel Inc. 2005).

Several clinic trails have been conducted on Zeel® and results confirm that Zeel® is an anti-inflammatory and reduces pain in the treatment arthritis (RA and OA) (Nahler *et al.* 1996, Maronna *et al.* 2000, Birnesser *et al.* 2007.) The remedy Zeel®'s pharmacodynamical therapeutic pathway is similar to that of NSAIDs. The remedy inhibits pathways associated with cyclooxygenase-1 and -2 enzymes and the 5-lipoxygenase pathways, which are responsible for the formation of leukotrienes and prostaglandins. This effect results in reduction of inflammation and pain. Some cases when NSAIDs are ingested there are side effects but Zeel® has no side effects. Comparatives studies concluded that the remedy Zeel® is not inferior to NSAIDs but is as effective and provides a better quality of life.

2.3.8.4 Traumeel®

Schneider (2011) reported a clinical trial which proved the effectiveness of Traumeel® in treating acute musculoskeletal injury and did so without any adverse side-effects. A review of the literature reveals that Traumeel® has undergone numerous clinical trials testing its efficacy, whether given orally, by injection or by employing biopuncture techniques. It was found to improve symptoms and increase immune function (Lozada *et al.* 2014; Deonarian 2012; Abdul-Rasheed 2013; Rajballi 2015).

Kersschot (2016b) concluded after case studies that biopuncture treatment is as effective as oral remedies. Oral medication cannot be administered when a patient is vomiting. In such cases abdominal subcutaneous injections were given for treating gastrointestinal disorders. The patients had complaints of pain in the abdomen, vomiting nausea, meteorism, gastric ulcer.

Lozada *et al.* (2014) conducted a double-blind randomised clinical study in the European Union which consisted of 232 patients with severe chronic knee osteoarthritis (OA). Participants received three intra-articular injections at weekly intervals over a period of 17 weeks. The participants were divided into a biopuncture (Traumeel® and Zeel®) treatment group consisting of 117 patients and a placebo group consisting of 111 patients. The Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) Pain Subscale was used to measure stiffness, physical function, and change in pain after certain activities. The study revealed that there was little or insignificant alleviation of the participants' OA symptoms after 8 days of treatment. However, by the end of the study, of the 117 patients that were given biopuncture injections, 64 showed a marked improvement of symptoms in terms of the WOMAC OA Pain scale assessment. Of the placebo group, 46 patients had a minimal difference from the baseline scale while the rest showed no difference in their symptoms. Biopuncture provided statistically significant and clinically relevant pain relief on days 15 to 99 in comparison to placebo. This trial revealed that a biological/mineral multi-extract combination is a safe and effective treatment for pain in moderate-to-severe knee OA.

2.4 Knowledge, attitude and practice (KAP)

2.4.1 Introduction

A KAP survey is a representative study of a specific population to collect information on what is known, believed and done concerning a particular topic (World Health Organization [WHO], 2008).

According to Kaliyaperumal (2004) the three topics that KAP studies measure are knowledge, attitude, and practice. By using a questionnaire to get information, KAP studies have been used to explore ways to assist increased awareness of homoeopathy in communities, and to improve and develop homoeopathic services in communities (Launiala, 2009; Green 2001, and Nichter 2008). In this study, a similar method was used to explore the topic of biopuncture. Homoeopathic practitioners' knowledge, attitudes, and perceptions of biopuncture were investigated with the aim to develop awareness of biopuncture in practice. This information will assist in contributing to the profile of practice methods used in the profession (Brown 2006).

Information on the use of biopuncture in clinical practice will make an educational contribution to the community. The level of knowledge and attitudes towards biopuncture will show just how applicable biopuncture is in South Africa.

2.4.2 Perception

Chaffee (1999) and Bergh and Theron (2009) state that perception is the means by which we understand reality. Perception assists in processing, organising and interpreting information. The perception of the perceiver is influenced by knowledge of the person, attitudes, beliefs, motives, experience and more as listed in the Table 2.2.

Table 2.2: Factors that influence perception

1. PERCEIVER	2. ENVIRONMENT	3. OBJECT
a) Attitudes	a) Time	a) Motion
b) Motivation	b) Work setting	b) Novelty
c) Interests	c) Social setting	c) Sounds
d) Experience	d) External Influence	d) Proximity
e) Expectations	e) Background	
f) Size		

Source: Adapted from Bergh and Theron (1999) and Chaffee (1999)

2.4.3 Knowledge

Chaffee (1999) defined knowledge as an organised body of factual or procedural information that is acquired through education or experience. It is an awareness gained by experience of the fact or situation.

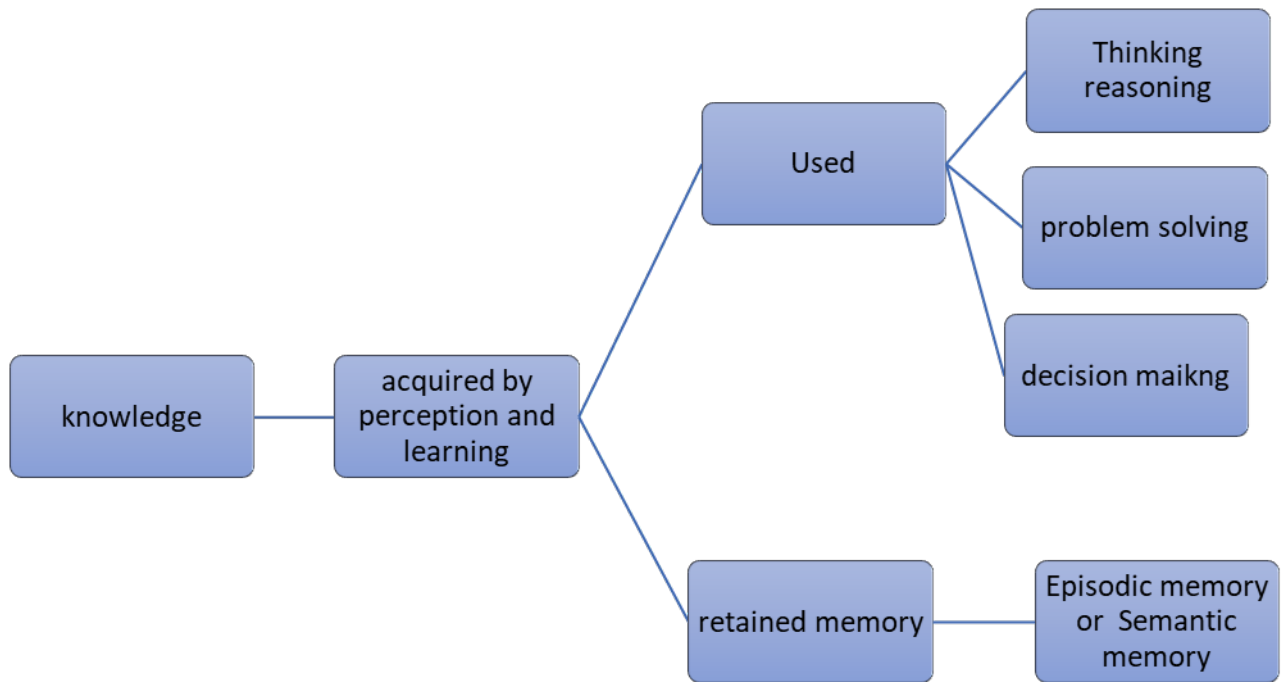


Figure 2.8: Knowledge

Source: Bergh and Theron (2009)

Figure 2.8 shows that knowledge gained will influence the perception of a person. The knowledge will influence the perceivers' reasoning, problem solving and decision making. Some perceptions are organised into retained memory.

According to Chiang *et al.* (2017), there are five methods in which one acquires knowledge.

-Authority

This is the most commonly used method to obtain knowledge. The authority figure (such as a parent, teacher, doctor, priest or government) states new ideas and the perceiver has to accept these to be true. Most of this knowledge is not questioned or researched further to substantiate that it is true. The methods used by an authority figure to reach the conclusion have to be evaluated to assess whether the information given is trustworthy or not.

-Empiricism

This is knowledge obtained by observation and experience. In most cases perception can be limited and deceptive. Experience can distort the way people perceive things.

-Intuition

This is linked to a person being guided by their gut emotions/feel, and instincts. There is no analysis of facts or evidence of rational thoughts. This knowledge cannot always be reliable as it is bias driven and could be irrelevant to the general population. Sometimes decision-based intuition is superior to rational analysis.

-Rationalism

This is when a person uses logic and reasoning to obtain new knowledge/ideas. A hypothesis or idea is stated, and logical rules and methods are properly applied to arrive at a solid conclusion.

-Scientific method

This is a combination of all the methods to acquire knowledge. It is a systematic process of using intuition, rationalism, authority, and empiricism to generate and test new ideas. It cannot be used to answer all questions or ideas so mostly addresses empirical questions.

Chaffee (1999) concluded "no single view is adequate for making sense of a complex situation or even people". Perception studies are useful in such instances. Responses might not always be correct because of bias based on respondents' experiences and knowledge of the subject/object. There is not a guarantee that the information will be accurate even if the information comes from a knowledgeable practitioner. However, a KAP study increases the odds of the accuracy of the information.

2.5 Conclusion

Brown (2006) conducted a study over 14 years ago to sketch a national profile of the practice methods of homoeopathic practitioners in South Africa. This profile needs to be updated to include biopuncture. Biopuncture therapy uses a similar holistic approach to clinical homoeopathy in the treatment of patients. The remedy preparation methods used to make the injectable medicaments are the same, through the application of homoeopathic potentisation. Biopuncture uses complex remedies and applies clinical treatment prescriptions, which is known to be same as clinical

homoeopathic prescribing. The injection remedy activates the body's innate healing abilities, a treatment of regulation and stimulation (European American Coalition on Homoeopathy, 2004).

When integrating different therapies into a homoeopathic practice, it is important to be familiar with the basic principles of that treatment regime (Owen 2007). In most instances these therapeutic methods were developed with the intention of being an extension of homoeopathy. Brown (2006) revealed that 69% of homoeopaths use adjunctive therapy and modalities in addition to homoeopathic remedies in their practice including: phytotherapy, Bach flower therapy, and aromatherapy oils, but biopuncture was not included in the profile as a modality being used by homoeopaths.

There are reports in the literature of the use of biopuncture remedies such as Traumeel[®], Zeel[®], Spascupreel[®], and Lymphomyosot[®] being effective treatment in whatever dosage form such as oral tablets or liquid, or intradermal injection. Biopuncture is a recently introduced adjunct therapy in the South African context. According to Wagner (2010), the biopuncture technique became popular amongst South African homoeopaths in 2010. Biopuncture was introduced into the DUT homoeopathic curriculum in 2014 and is also prescribed in the DUT clinics. Seminars and training for proposed Continuous Professional Development (CPD) points were the means by which most homoeopaths in practice learned and then integrated biopuncture into practice. Biopuncture reflects the knowledge of the homoeopathic injectable as a biotherapeutic (Stock *et al.* 2002).

The literature shows it to be as effective as NSAIDs/analgesic drugs, which open the opportunity to treat patients without any risk of addiction and side effects. It provides an additional method to treat sport injuries amongst other illness in a homoeopathic practice. Kersschot (2014) concluded after investigating case studies that biopuncture treatment is as effective as oral remedies.

The focus of this study was not on the effectiveness of biopuncture as this has been explored and has been proven to be effective in previous studies, but rather focused on retrospective cases in homoeopathic practices in South Africa where biopuncture therapy has been prescribed. The study also set out to obtain the knowledge, attitudes and perception that homoeopaths have on biopuncture. The next chapter presents the research methods applied in the study.

CHAPTER 3: METHODOLOGY

This chapter has an outline of the research sample method and size, and the steps taken when the research was conducted. Steps includes methods of distribution of the questionnaire, reminders to return the questionnaire and collections of the responses to the questionnaire.

3.1 Study Design

This was a quantitative survey study. The approximate sample size as advised by the research statistician Prof. Matthews, for the study using a 5% margin of error and a 95% confidence coefficient was 225 (personal communication via e-mail, November 2017). According to Allied Health Professions Council of South Africa (AHPCSA) at the time the study began there were 565 homoeopaths registered and practising in South Africa. The initially desired sample size was 225 homoeopaths of the population of registered homoeopaths in South Africa. The final sample size was only 34% (n = 77). Miller (2020) suggests that half the population of registered homoeopaths are assumed to be inactive practitioners, it is therefore uncertain what the total population of homoeopaths with practices is. The measuring tool utilised in this study was a self-administered questionnaire.

3.2 Study population

Convenience sampling was chosen as the best method to use because the final sample depended on the number of people who were willing to respond to the survey and become participants in the study. The study population consisted of homoeopathic practitioners who met the study's criteria.

3.2.1 inclusion criteria

- A homoeopathic practitioner who is registered with the AHPCSA.
- Must be actively practicing in South Africa.
- Must have an email account and access to the internet.
- Must be able to read and understand English, as the questionnaire was in English.

3.2.2 Exclusion criteria

- Homoeopaths who are not registered with AHPCSA.
- Participants who do not return the questionnaire within 12 weeks after receiving the questionnaire.

3.3 Data collection tool

The researcher acquired permission to modify a pre-validated questionnaire used by Lamula (2010) (Appendix D) and reference to a pre-validated questionnaire of a similar study which was Section C of the survey used by Baars, Adriaansen and Eikmans (2012). According to Brink, van der Walt and van Rensburg (2012), self-report techniques are the most effective way to gather factual information about participants' perceptions, knowledge levels and experiences. The questionnaires were modified after a review of the researcher's objectives for the research, then the questionnaire was compiled on an online survey site namely Google Forms®. A pilot study was conducted in which four registered homoeopaths took part. The purpose of the pilot study was to ascertain efficacy of the questionnaire to obtain the information required. The feedback from questionnaire led to the construction of the questionnaire which consisted of:

- Section A: Demographics of the practitioner. According to Hughes *et al.* (2010), demographics in a questionnaire provide an indication of identity to the sample population. Identity provides clues regarding the reasoning for a person's behaviour, but it is not assumed that a certain identity means a person will definitively act in a certain way. The demographics in this study provided clues regarding the participants' attitudes and perceptions. It also assisted in providing a clear description of the sample population of the study.
- Section B: The attitudes, knowledge, and perceptions of biopuncture.
- Section C: The use of biopuncture in clinical practice.

3.4 Data collection process

3.4.1 Initial contact

The researcher primarily sourced information about homoeopathic practitioners from the Homoeopathic Association of South Africa (HSA) website (<https://homeopathy.org.za/>) and the Allied Health Professions Council of South Africa (AHPCSA) website (<https://ahpcs.co.za/>). The researcher telephonically contacted potential participants and requested them to partake in the study, if they met the required criteria. The researcher asked each participant to nominate other people who were suitable for the research study.

3.4.2 Delivery of questionnaires

The researcher sent participants an email which contained a link to the questionnaire which was conducted via an online questionnaire site, namely Google Forms® (Appendix C). The letter of information was included in the email (Appendix B). Two weeks were given to complete the questionnaire. An email to remind practitioners was sent every two weeks for a period of ten weeks to encourage participation.

3.4.3 Collection of questionnaires

Once participants had completed the questionnaire, they were requested to notify the researcher. The researcher had a list (acquired during stage 1) of all the participants who agreed to be a part of the study, therefore kept a record of the participants who had answered. A reminder email was not sent to participants who notified the researcher that they had answered the questionnaire. Google Forms® returned the completed questionnaires directly to the researcher. Some of the potential participants had not answered the questionnaire within this timeframe, so were excluded from the study. The researcher adopted similar timelines to previous studies (Medina 2012; Naidoo 2008; Miller 2020).

3.5 Confidentiality and Consent

To improve participation in the study, written consent was not attained seeing as this typically discourages participants who then have to print, sign, scan, and email consent forms. Instead, the email that the participants received included a letter of information on how they were to give their consent to participate in the study.

As was clearly explained in the email, when the participant clicked on the link to the online survey, they would in effect be giving their consent (Appendix A). The participant was assured of strict confidentiality (Appendix B), and no personal details were published. All questionnaires were assigned codes on return by the researcher to ensure confidentiality by ensuring that the answered survey did not have any of the participants' details on them. The returned completed questionnaires were accessed by the researcher only.

3.6 Data analysis

The raw data was entered into an Excel spreadsheet. The data analysis was done using SPSS version 25®. The raw data was used to summarise descriptive statistics. Qualitative data were translated to be used in summarised descriptive statistics. Frequency tables were used to summarise the responses to the questionnaire. The responses were categories and interpreted into percentages. The data were presented and reported in graphic methods such as a pie chart or bar graphs or tables. The chi-square test for independence between two categorical variables was applied and a p -value of less than 0.05 was indicated as a significant association between variables. The desired sample size was not achieved which led to application of the Fisher exact test which is suitable for a small sample population to obtain an accurate p -value.

3.7 Limitation

According to Brink, van der Walt and van Rensburg (2012), long questionnaires discourage involvement of participants and lead to incomplete responses. The pilot study revealed an emphasis on the time it would take to respond on the questionnaire. Although the questionnaire was timed appropriately, there was no comment section for the participants to share and elaborate on details. The responses were the views, opinions and experiences of homoeopaths. Some statements were not actually facts about biopuncture. Another limitation was that homoeopathic practitioner may not have been able to complete the questionnaire as they have busy working schedules. Naidoo (2008) states that the response population can be used in a study to represent all in South African homoeopaths and in different areas such as urban and rural areas equally. This could also be a possible limitation on the source of data for the study.

CHAPTER 4: RESULTS

This chapter shows the data collected and analysis thereof. The tool used was a questionnaire divide into three sections. The chapter will be in these headings:

- Section A: Demographics of the practitioner
- Section B: The attitudes, knowledge, and perceptions of biopuncture
- Section C: its use in clinical practice.
- Analysis correlation of variables.

4.1 Section A: Demographic results

4.1.1 Q1. Gender

Figure 4.1 shows the gender demographics of study participants. There were 51 females and 26 males.

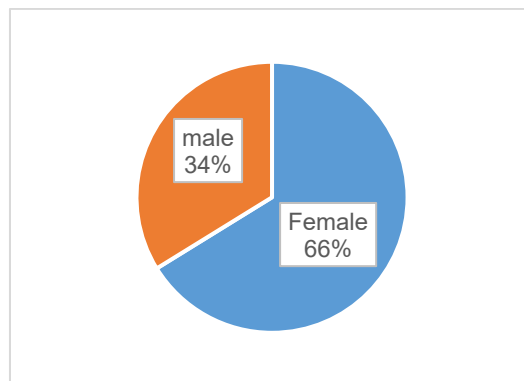


Figure 4.1: Pie chart of gender percentiles of participants in the study

4.1.2 Q2. What type of qualifications do you possess?

There were 83% of respondents with only a MTech: Homoeopathy degree (Table 4.1).

Table 4.1:A summary of current acquired qualification

Qualification	Frequency	Percentage
DHomoeopathy and other	1	1.3
MTech Hom	64	83.1
MTech Hom and other	12	15.6
Total	77	100.0

4.1.3 Q3. How many years have you been in homoeopathic practice?

The longest period in practice was 45 years (Table 4.2). Homoeopathic practices are growing in numbers, with 17% of respondents being less than 2 years in practice. See also Appendix E.

Table 4.2: the number of years in practice

Number of years	Frequency	Percentage
16 years and more	28	36.3
3 years - 7 years	7	9.1
8 years - 15 years	29	37.7
several months- 2 years	13	16.9
Total	77	100.0

4.1.4 Q4. The provincial location of practices of participants

The population in the study represented six provinces of South Africa. The majority (44%) of homoeopathic practices were based in Gauteng province (Table 4.3).

Table 4.3. The provinces where homoeopaths have established their practices

Provinces	Frequency	Percentage
Eastern Cape	3	3.9
Gauteng	34	44.2
Non- responsive	1	1.3
KwaZulu-Natal	23	29.9
Limpopo	2	2.6
Mpumalanga	1	1.3
Northern Cape	1	1.3
Western Cape	12	15.5
Total	77	100.0

Appendix E shows the city and area of practice.

4.2 Section B: The attitudes, knowledge, and perceptions of biopuncture

4.2.1 Q.8. Where have you heard of biopuncture?

A total of 43% of respondents acquired their knowledge of biopuncture at university only. One percent of the respondents that had never heard of biopuncture (Table 4.4).

Table 4.4: Method of acquiring the knowledge

	Frequency	Percentage
A colleague	8	10.4
A colleague, in university	1	1.3
A colleague, in university, and other	1	1.3
A journal article or book	8	10.4
A journal article or book, a colleague	3	3.9
A journal article or book, a colleague, and other	3	3.9
A journal article or book, a colleague, in university	6	7.8
A journal article or book, in university	2	2.6
I have never heard of it	1	1.3
In university	33	42.9
Other	11	14.2
Total	77	100.0

4.2.2 Q.9. Which statement in your opinion best defines biopuncture?

The majority (79%) of respondents were familiar with the definition, namely: It is a technique of injecting ultra-low dose homeopathic medication into specific zones or points of the body to support bioregulation. Ten percent of respondents perceive it to be a homeopathic injectable (Table 4.5).

Table 4.5: The definition of biopuncture

Definition	Frequency	percentage
Uncertain	4	5.2
It is a homeopathic injectable	8	10.4
It is a technique of injecting ultra-low dose medication into specific zones or points of the body in order to support bioregulation	61	79.2
It is a technique of injecting ultra-low dose medication (homeopathic injectable) into specific zones or points of the to support bioregulation and includes puncture therapies such as mesotherapy and neural therapy if indicated, i.e. both	4	5.2
Total	77	100.0

4.2.3 Q.10. How would you describe your knowledge on biopuncture?

The majority of respondents (62.3%) stated that they had a good/significant knowledge of biopuncture and are using it in their practice (Figure 4.2).

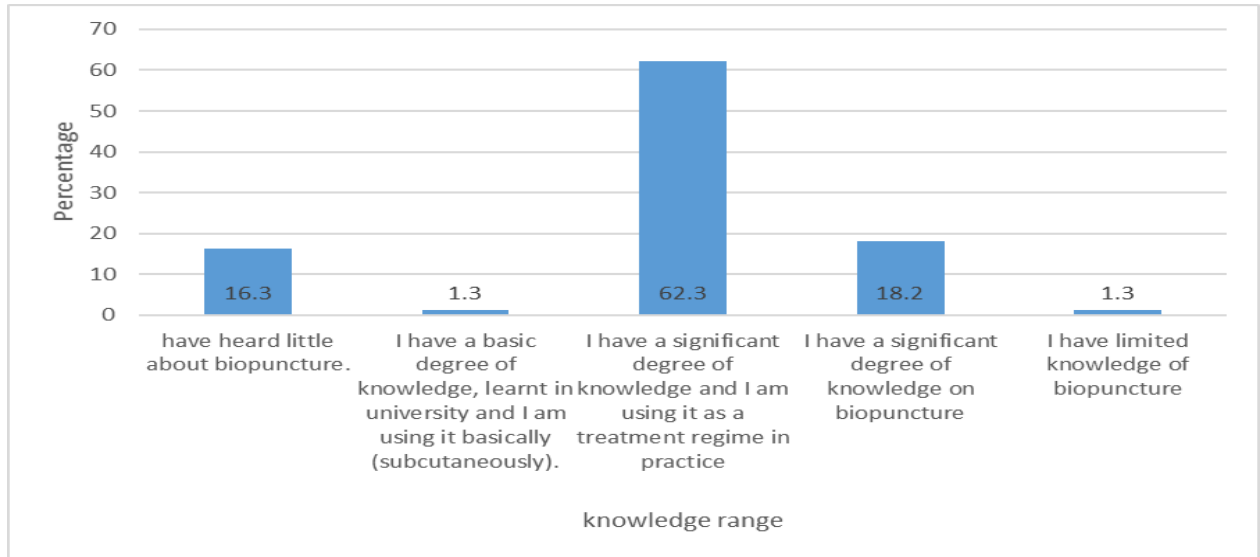


Figure 4.2: Knowledge of biopuncture

4.2.4 Q.11. Which of the following statements best reflects your view of biopuncture?

Table 4.6 reflects that 66% of respondents perceived biopuncture therapy to be an excellent treatment and that it should be used as an adjunctive therapy.

Table 4.6: Perception and attitude towards biopuncture

Perception and attitude towards biopuncture	frequency	Percentage
I perceive a homoeopathic injection to be the same as biopuncture	14	18.2
It is an application of the principals of antihomotoxicology and scientifically sound	20	26
Biopuncture therapy is an excellent treatment and it should be in homoeopathic practice	51	66.2
I am uncomfortable with it, but it is effective for some patients	3	3.9
Biopuncture is effective and works but I will never use it in my practice	6	7.8
Biopuncture isn't homoeopathic and it shouldn't be in a homoeopathic practice	3	3.9
I would attend a biopuncture training course	30	39

4.2.5 Q.12. In the treatment of acute conditions (fever, gastroenteritis, coughing etc.) do you think that biopuncture is that biopuncture is ...

Figure 4.3 and Table 4.7 illustrate the perception of the use of biopuncture in case management. These reflect that 65% of respondents are of the opinion that biopuncture is applicable in the treatment of acute conditions.

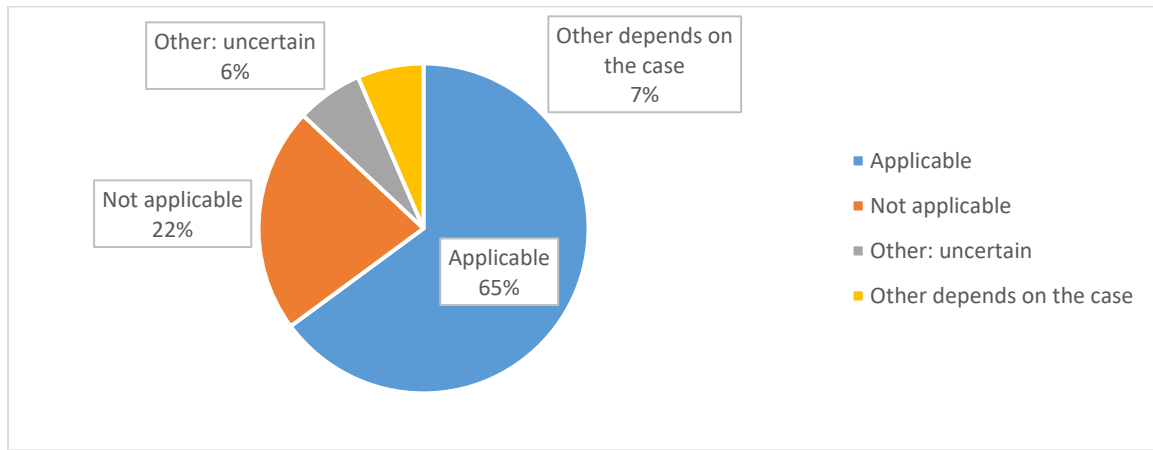


Figure 4.3: Application of biopuncture in an acute condition

Table 4.7: Application of biopuncture in an acute condition

	Frequency	Percentage
Applicable (can be prescribed as treatment)	50	64.9
Not to be prescribed as treatment	17	22.1
Other Uncertain	5	6.5
Other: depends on case	5	6.5

4.2.6 Q.13. In the treatment of chronic conditions (diabetes, cystic fibrosis, etc.), do you think that biopuncture is ...

Figure 4.4 shows that 79% of respondents reported that biopuncture is applicable in the treatment of chronic conditions.

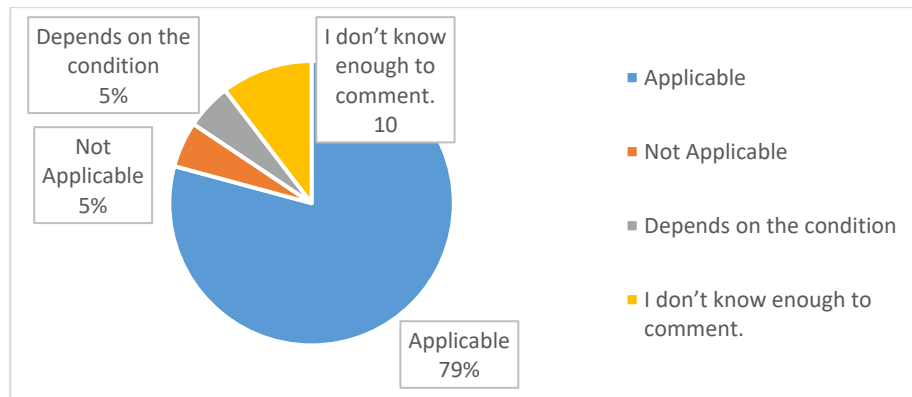


Figure 4.4: Application of biopuncture in a chronic condition

4.2.7 Q.14. Please state your views on the following statements

4.2.7.1 Q14.1. The use of biopuncture as an adjunctive by homoeopaths is needed in South Africa

Biopuncture can be integrated into most health practices, with 60% of respondents agreeing that biopuncture is a valuable/necessary adjunctive therapy (Figure 4.5).

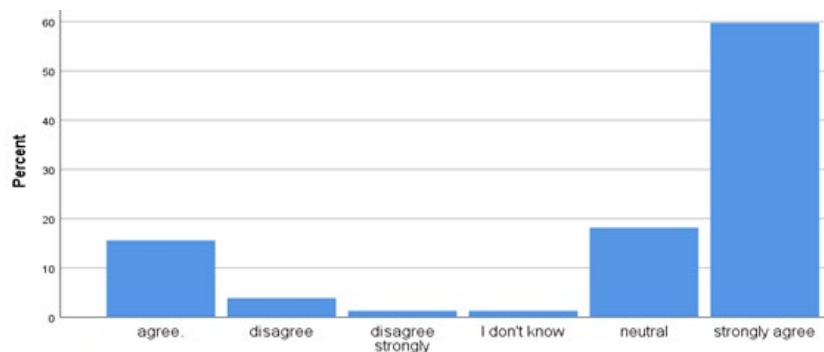


Figure 4.5: The use of biopuncture as an adjunctive therapy by homoeopaths in South Africa

4.2.7.2 Q14.2. The use of biopuncture by homoeopaths conflicts with the traditional philosophy of homoeopathy

Biopuncture applies some principles of homoeopathy; 37% of participants agreed that biopuncture does not conflict with the traditional philosophy of homoeopathy (Figure 4.6).

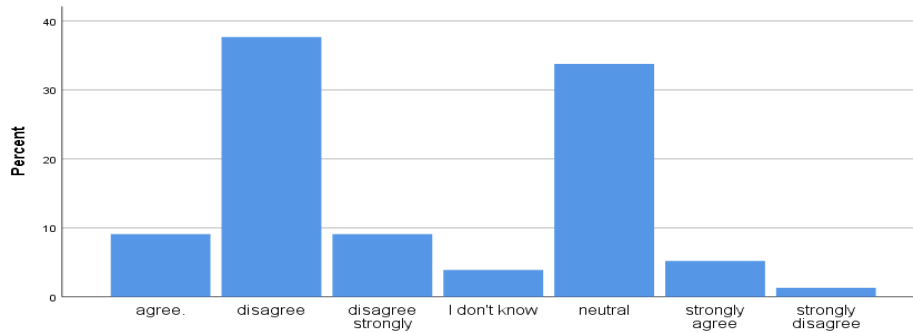


Figure 4.6: Biopuncture conflicts with traditional homoeopathic philosophy

4.2.7.3 Q14.3. The administration of biopuncture is needed as an adjunctive within the homoeopathic scope of practice

The majority of respondents (55%) strongly agreed that biopuncture has a place in the homoeopathic scope of practice. They perceived it to be suitable, which is reflected a positive attitude towards biopuncture treatment (Figure 4.7).

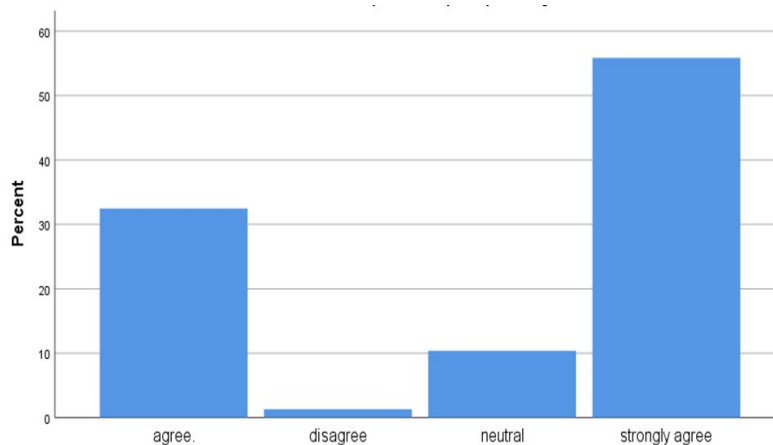


Figure 4.7: Administration of Biopuncture as an adjunctive in scope of practice

4.2.7.4 Q.14.4. The use of biopuncture by homoeopaths is useful for good patient management

The majority of respondents (57%) strongly agreed that biopuncture would benefit patients. They concluded that a homoeopathic practitioner should treat patients with biopuncture if and where applicable.

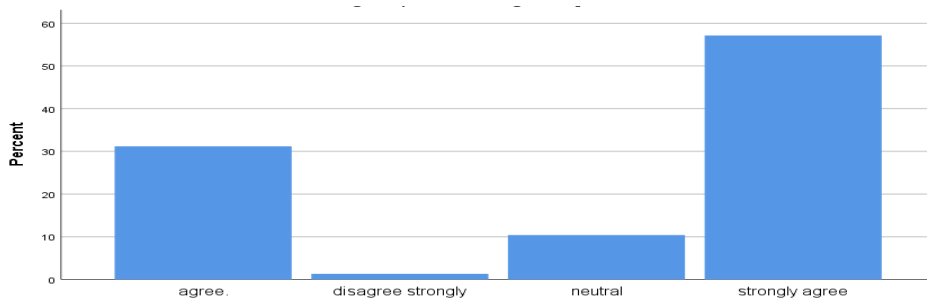


Figure 4.8: Good patient management

4.3 Section C. The use of biopuncture in clinical practice

4.3.1 Q15. Do you use biopuncture in your practice?

The pie chart in Figure 4.9 reflects the proportion of respondents who use biopuncture in their practice. The majority (74%, n = 62) indicated that they use the modality in practice. “Other” (4%) represents participants who use homoeopathic injectable remedies but do not apply the biopuncture technique and injection.

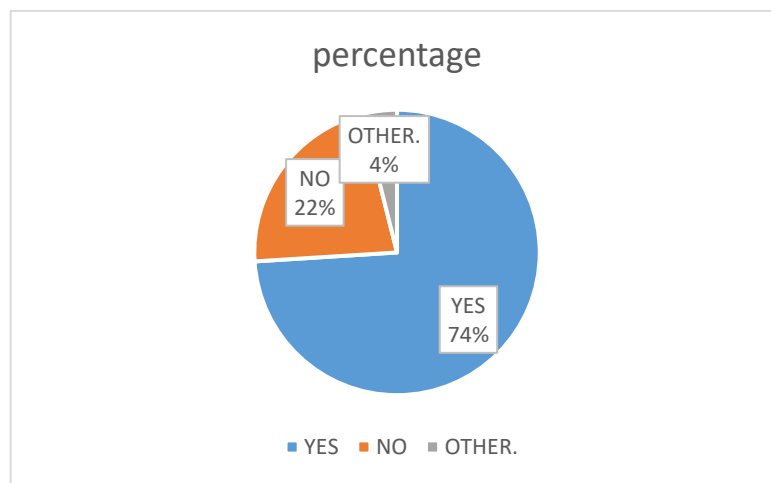


Figure 4.9: Use of biopuncture in practice

4.3.2 Q.16. Does medical aid pay for biopuncture therapy treatment?

The chart in Figure 4.10 reflects that 48.4% of the respondents stated that medical aid pays for biopuncture treatment. There were others who stated that it depends on the situation.

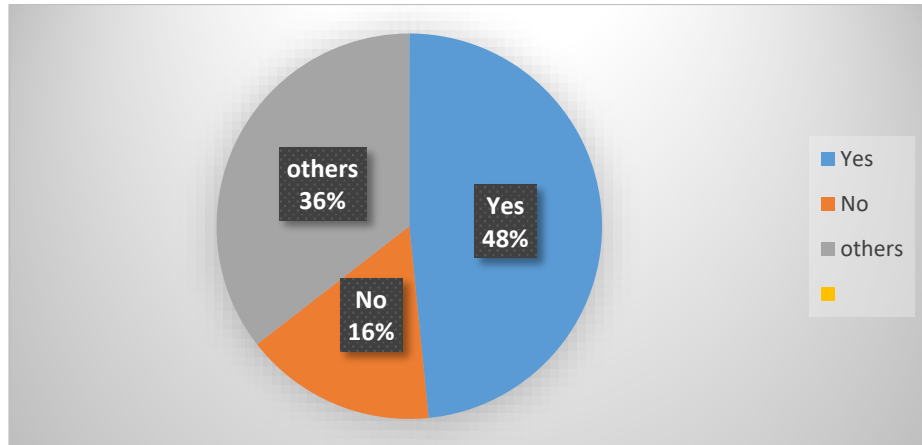


Figure 4.10: Medical aid payment for biopuncture treatment

4.3.3 Q.17. How many years have you been using biopuncture in practice?

The largest percentage response (27%) was that of using biopuncture for less than 3 years (Table 4.8).

Table 4.8: Years using biopuncture in practice

	Frequency	Percentage
40 years	1	1.6
23years – 24 years	3	4.8
16years – 20 years	4	6.5
8 years – 15 years	26	41.9
3years – 7 years	14	22.5
several months – 2 years	14	22.5
Total	62	100.0

**4.3.4 Q.18. How many therapy sessions on average does each patient require?
[Acute condition]**

Table 4.9 reflects that 35.5% of respondents reported that the best therapeutic effect is achieved with four or more therapy sessions, in the treatment of an acute condition.

Table 4.9: Frequency of therapy sessions for an acute condition

	Frequency	Percentage
No response	3	4.8
1	16	25.8
2	22	35.5
3	16	25.8
4 or more	4	6.5
4or more	1	1.6
Total	62	100.0

**4.3.5 Q.19. How many therapy sessions on average does each patient require?
[Chronic condition]**

Table 4.10 reflects that 77.4% of respondents found that the best therapeutic effect is achieved with four or more therapy sessions, in the treatment of a chronic condition.

Table 4.10: Frequency of sessions for a chronic condition

	Frequency	Percentage
No response	2	3.2
1	1	1.6
2	3	4.8
3	8	12.9
4 or more	48	77.4
Total	62	100.0

4.3.6 Q.20. Are there times when you prescribe biopuncture only?

Biopuncture is considered to be an adjunctive therapy by 86% of respondents. They do not use it as a "stand-alone" therapy. The therapy is given as a series of injections; it is prescribed as a follow up by 58% of respondents which is the only time it is prescribed alone (Table 4.11).

Table 4.11: Prescribing biopuncture only

	Frequency	Percentage
No, I only used as an adjunctive to a remedy	16	25.8
not applicable to me	6	9.6
Yes, as a stand-alone therapy	4	6.5
Yes, when It is a follow-up injection	36	58.1
Total	62	100.0

4.3.7 Q.21.What is the average time for a biopuncture therapy session?

Figure 4.11 reflects the time needed for a consultation.

Q21.1. Initial case: The majority of 35.5% of the respondents need about 30min in a consultation. This is when the prescription was biopuncture injection.

Q21.2. Follow up: when a patient return for the series of injection, 66% of respondents concluded the consultation in less than 15 min.

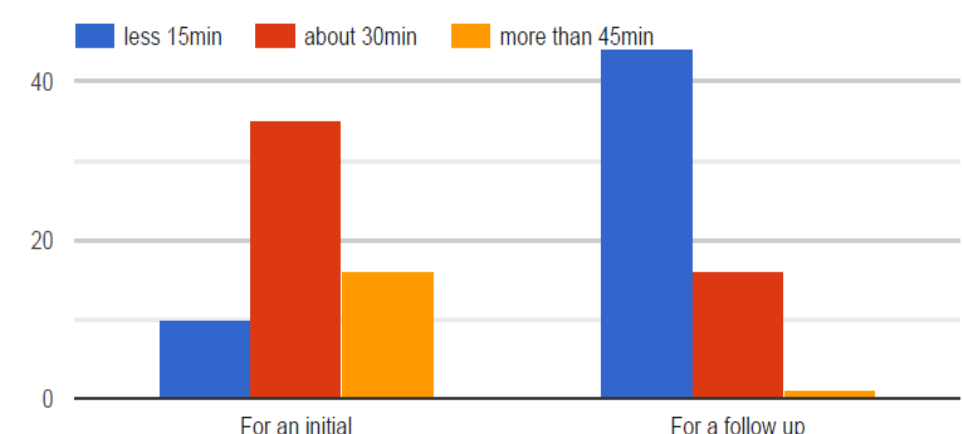


Figure 4.11: Time taken for consultation

4.3.8 Q.22. Where do you buy your injectable ampoules?

The most frequently used suppliers were TopMed, Pharmed, -Heel and Reckeweg. These companies have been named to have hosted some biopuncture seminars.

4.3.9 Q.23. Theoretically, there are four phases according to the prescribed biopuncture technique when we approach the patient. To what extent on average, do you follow the biopuncture technique?

According to Kersschot the biopuncture treatment is administered by a series of injections for the best therapeutic outcome. The series of injection phases involve a detoxification phase, lymph drainage phase, main drug administration and cellular support.

23.1. Phase 1: 18% of respondents indicated that when biopuncture is prescribed, this injection is administered in 50% of the cases, and 11.3% of participants skip this injection phase.

23.2. Phase 2: 33.9% of respondents use a Phase 2 injection 80% of the time. The most common injection indicated in Phase 2 is Traumeel®. This may be because in some cases Traumeel® may not necessarily be a Phase 2 application but an indicated remedy injection.

23.3. Phase 3: 35.5% of respondents additionally administer a specific remedy in 100% of the cases when biopuncture is indicated for treatment.

23.4. Phase 4: 25.8% of respondents administer a Phase 4 injection in 22.6% of cases when biopuncture is prescribed.

Figure 4.12 shows the pattern of the use of the biopuncture technique.

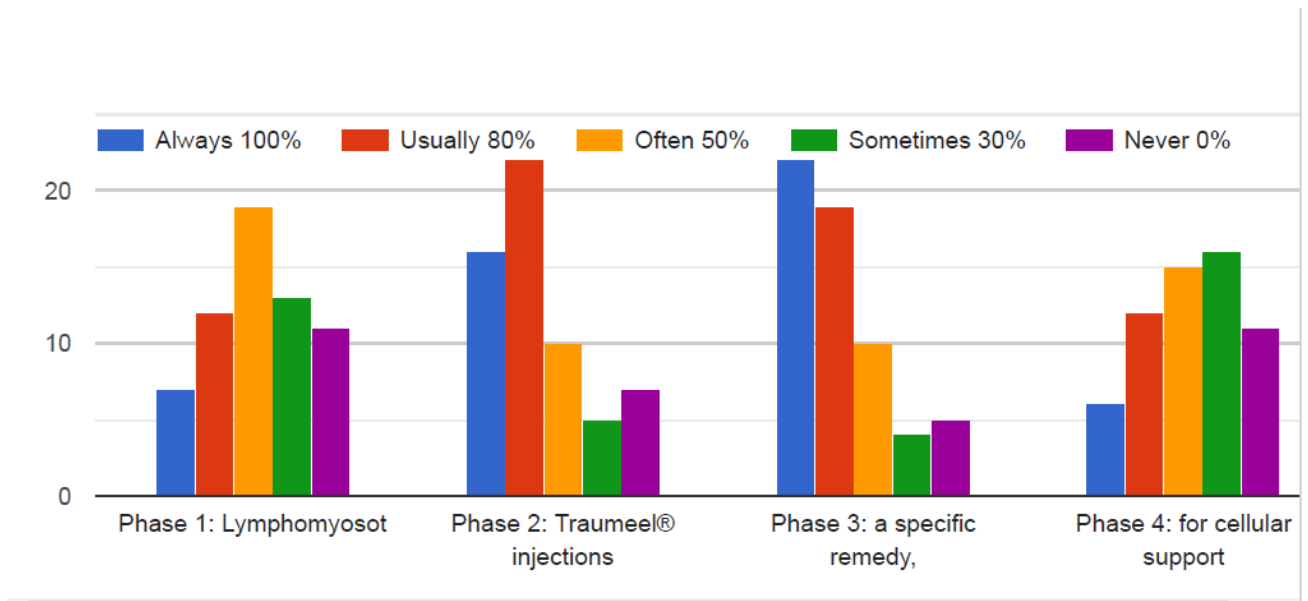


Figure 4.12: Application of the four phase method

4.3.10 Q.24 What are some of the ampoules (if any) that you most frequently use in treatment?

4.3.10.1 Q.24.1. Musculoskeletal system illness/condition

Most of the participants (97%) use biopuncture to treat musculoskeletal conditions; only 3% do not use it when treating musculoskeletal conditions. The most commonly used medication was Traumeel®.

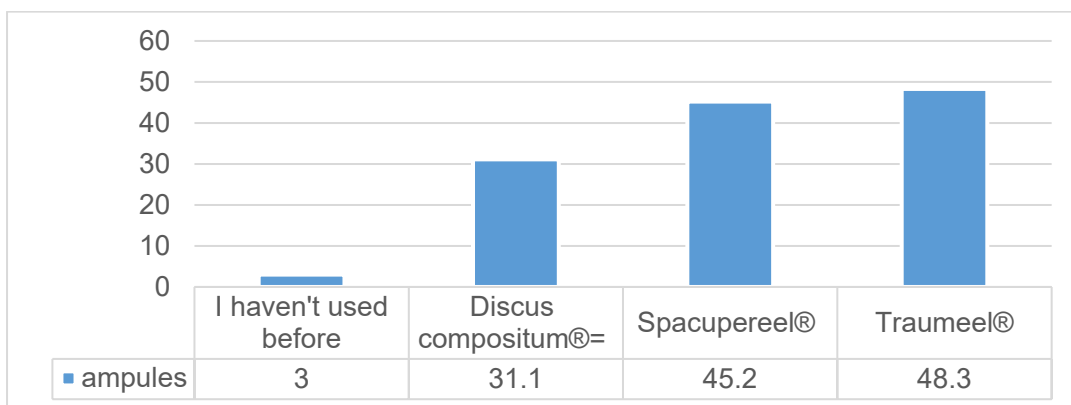


Figure 4.13: Musculoskeletal system illness/condition

4.3.10.2 Q.24.2. Respiratory system medical conditions/ illness?

Figure 4.14 shows that 29% of the respondents do not use biopuncture in patients with respiratory illness, and 39.9% of the respondents use Echinacea® injections to treat respiratory illnesses. Echinacea® is commonly used as an over-the-counter medicine as an immune booster.

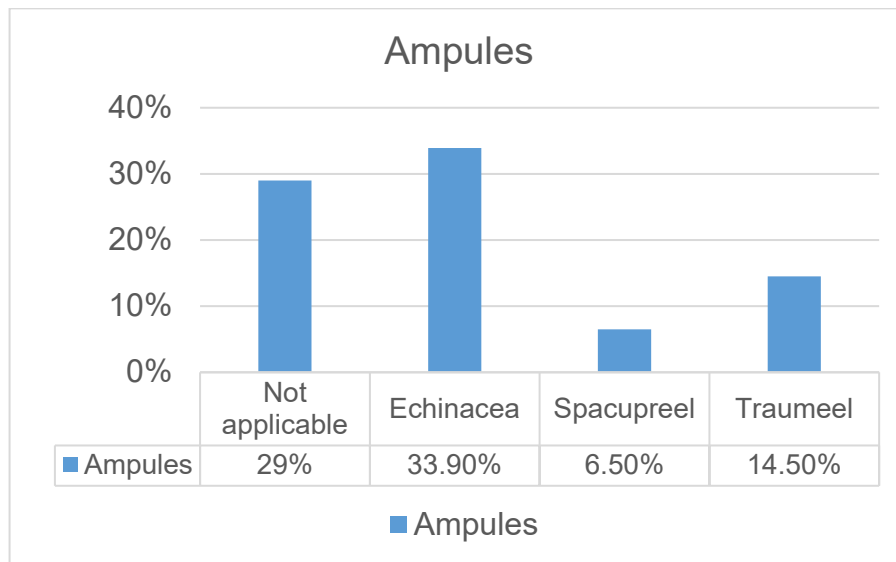


Figure 4.14: Ampoules used in the treatment of respiratory system illness

4.3.10.3 Q.24.3. Gastrointestinal system medical conditions/ illness?

Figure 4.15 shows that 22.6% of the respondents do not use biopuncture for this illness. There were 22.6% of the respondents who reported that they use Spascupreel® injections to treat conditions associated with the gastrointestinal system. According to Heel Inc. (2012), this remedy is indicated for symptoms such as smooth musculature spasm and cramping, intestinal colic, abdominal cramps and menstrual cramps.

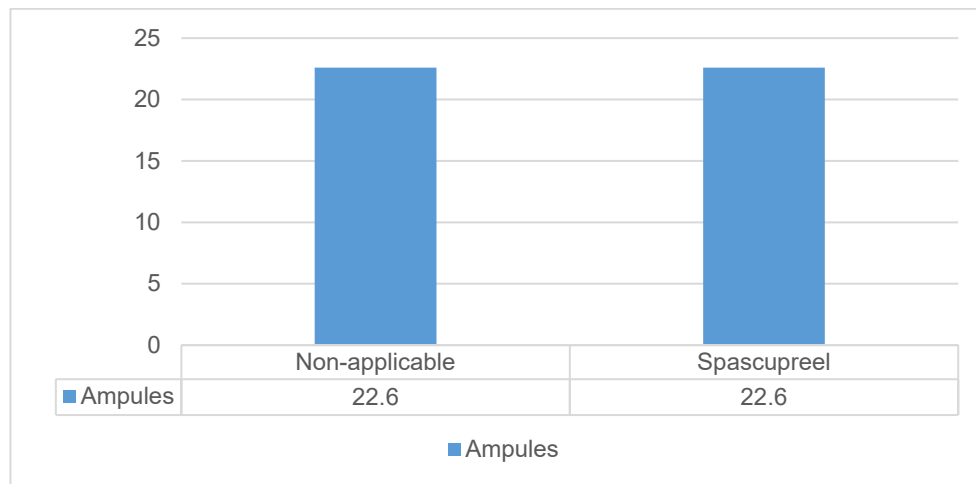


Figure 4.15: Ampoules used in the treatment of gastrointestinal illness

4.3.10.4 Q24.4 Neurological system medical conditions/illness (conditions of the neurological system)

Figure 4.16 shows that 41.9% of respondents do not use biopuncture for this illness. Those respondents who do use biopuncture for this illness use Traumeel® injections.

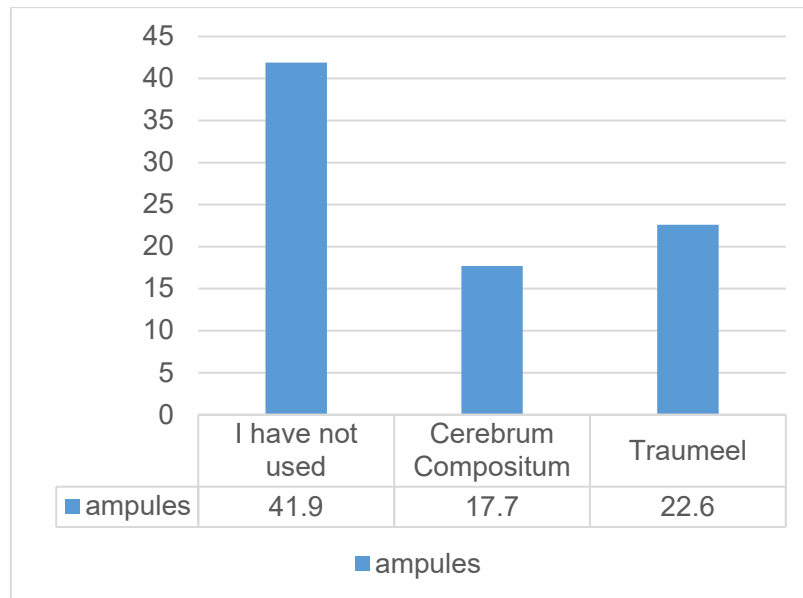


Figure 4.16: Ampoules used in the treatment of neurological illness

4.3.10.5 Q.24.5. Urogenital system medical conditions/illness

Figure 4.17 shows that 43.5% of respondents do not use biopuncture for this illness. Those respondents who do use biopuncture for this illness use Traumeel® and Lymphomyosot® injections to treat conditions of the urogenital system.

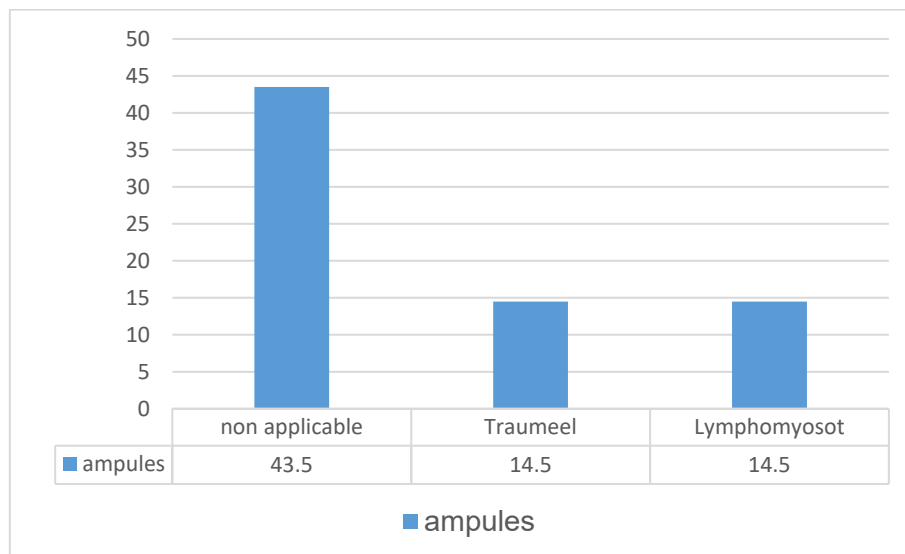


Figure 4.17: Ampoules used in the treatment of urogenital system illness

4.3.11 Q.25. Name the most common conditions you treat or cases that you prescribe biopuncture

There were 60 responses. Appendix F elaborates on all the responses. The most common condition to be treated was musculoskeletal, although some respondents have treated emotional cases with biopuncture. This demonstrates that biopuncture is a holistic treatment, and can be as functional as a homoeopathic treatment.

The most commonly used remedy for musculoskeletal conditions is Traumeel®. This product has undergone many clinical trials and tests and in most cases results in healing.

The most common remedy used for respiratory condition is Echinacea®. It is well known as a homoeopathic and over-the-counter medicine as an immune booster.

GIT: most respondents that use biopuncture to treat this condition use Spascupreel®.

Neurological: this was area where biopuncture was used least compared to all other conditions.

4.3.12 Q.26. What are some of the adverse or undesired effects which have been experienced by your patients in the use of Biopuncture?

There were only five responses to this questions, all indicating that their patients mostly complained of skin irritation and pain at the site of injection. None indicated an allergic reaction or anaphylactic shock. In a European study by the authors concluded that 2% of the cases of patients experienced an allergic reaction. There were also reports of symptoms such as anaphylactic shock, nausea and abdominal/colic pain in <0.1% of patients (Baars, Adriaansen and Eikmans 2005).

4.3.13 Q.27. Are there, in your opinion, other disadvantages in the use of biopuncture? (please elaborate)

Thirteen homoeopaths did not respond to this question. The concerns and comments that were highlighted include:

* Response 1: It is not a pure form of homoeopathy. Injections should not be necessary except in autosanguis therapy as most remedies are well absorbed sublingually and injections are undesirable for children.

* Response 2: The patient may be inconsistent in returning for follow-up.

* Response 3: Low-profit margin if used as an adjunct to standard homoeopathic prescription.

* Response 4: Many people do not like needles. Some sites are more painful than others.

* Response 5: My practice covers a very large geographical area; it is often impossible for patients to do the required follow up in the necessary time frame.

* Response 6: Not used properly with practitioners and poor training in it.

* Response 7: Patients must come in for injections regularly in the treatment of chronic conditions. If they are not consistent, treatment may not be as effective.

Some respondents commented on the affordability of biopuncture. Some use biopuncture but they are uncomfortable with it. It was also stated that at times patients are inconsistent with follow ups, so because of this the desired healing response is not achieved. There was concern that there should be proper training available and conducted, as injecting is a skill. It also requires familiarity with the anatomy and injection in the correct place.

4.4 Correlation analysis

In this section there will be an analysis of data and comparison of variables and testing of the relationships between variables. The null hypothesis is that variables are not related and are independent. The conclusion about the hypothesis is made with 95% co-independence if the level of significance is set at $p\text{-value} \leq 0.05$ (Statistics Solution 2020).

The chi-squared test is a nonparametric statistical test which is used in the social sciences to examine the differences or associations for nominal and ordinal level data (Morgan *et al.* 2001). The Fisher exact test is for independence between two categorical variables. This test is more useful in instances when the sample size is a small population (Fisher 1922).

4.4.1 The results of various variables compared to gender

There were no variables which were of significance. All the variables were independent and had no relation to each other (Table 4.12).

Table 4.12: Comparison on data of variables to gender*

Variables compare to Gender.*	Pearson chi-square p -value	Fisher exact test	Comment.
The administration of Biopuncture is as an adjunctive within the homoeopathic scope of practice.	=0.79	= 0.88	The perception of homoeopaths adding biopuncture as an adjunctive into their scope of practice. It is observed that in both males and female they strongly agreed. The results conclusion chi-squared test for independent, Null hypothesis: gender is independent of the views on the administration of biopuncture is as an adjunctive within the homoeopathic scope of practice
The use of Biopuncture by homoeopaths' conflicts with the traditional philosophy of homoeopathy	=0.380	=0.465	The results conclusion chi-squared test for independent, Null hypothesis: gender is independent of the views on the administration of the use of Biopuncture by homoeopaths' conflicts with the traditional philosophy of homoeopathy.
Please state your views on the following statements. [The use of Biopuncture adjunctive by homoeopaths	=0.370.	= 0.319.	The majority of both male(n=17) and female(n=29) strongly agreed there was a need for biopuncture in south Africa.
Please state your views on the following statements. [The use of Biopuncture by homoeopaths is useful for good patient management]	=0.396	=0.429	The variables gender was independent to use biopuncture for patient management
Do you use biopuncture in your practice?	=0.6	= 0.717.	The variables gender was independent to use biopuncture in your practice.

4.4.2 The results of various variables compared to “Years in practice in homoeopathy”

Table 4.13 and Table 4.14 show the results of various variables compared to “Years in practice in homoeopathy”.

- The variables of the knowledge on biopuncture was dependant on the years of in practice, with a chi square p -value = 0.021 and the Fisher exact test p -value = 0.025.
- The variables “Use of biopuncture by homoeopaths is useful for good patient management” and “Years in practice” was significant with a chi-square p -value = 0.024.
- the variables “Do you use biopuncture in your practice” and “Years in practice” was highly significant with a p -value = 0.003.
- There were no other variables of significance.

Table 4.13: Variables comparison to years in practice in homoeopathy

Variables comparison to Years in practice in homoeopathy	Pearson chi-square p -value	Fisher exact test	Comments:
How would you describe your knowledge on biopuncture?	= 0.021	= 0.025	Significance. The variables of level that describe your knowledge on biopuncture were dependent of the numbers of years have you been in homoeopathic practice.
The administration of Biopuncture is as an adjunctive within the homoeopathic scope of practice?	= 0.399	= 9.4	
The use of Biopuncture by homoeopaths’ conflicts with the traditional philosophy of homoeopathy?	= 0.113	= 23.8	There were a few (n=3), who were unsure/uncertain of their view of biopuncture conflicting homoeopathic philosophy
The use of Biopuncture adjunctive by homoeopaths is needed in South Africa?	= 0.341	= 0.717	The variables are independent of each other.
The use of Biopuncture by homoeopaths is useful for good patient management?	= 0.024	= 12.1	The Pearson chi-square value = 19.1. It was significant. There related to number of years the practitioners have been in practice.
Do you use biopuncture in your practice ?	= 0.003	= 0.003	The variables are dependent on each other, there was a great correlation.

Table 4.14: Cross tabulation: How many years have you been in homoeopathic practice * Do you use biopuncture in your practice? (if other please state elaborate)

		Do you use biopuncture in your practice? (if other please state elaborate)		Total
		No	Yes	
How many years have you been in homoeopathic practice	16 years and more	12	15	27
	3 years - 7 years	1	6	7
	8 years - 15 years	3	25	28
	several months- 2 years	0	12	12
Total		16	58	74

4.5 Conclusion

The chapter is a detailed report of the result from respondent questionnaires. The next chapter will be discussion of the results.

CHAPTER 5: DISCUSSION

5.1 Introduction

The previous chapter presented the results of the study. Participants provided information on their knowledge, methods and use of biopuncture in practice. This chapter will provide a brief overview of whether the study objectives were achieved, and conclusions drawn from the results as well as specific recommendations for possible further studies in the field of biopuncture.

5.2 Study sample population

The study population was represented by a sample size of $n = 77$ respondents. The study was emailed to all ($n = 585$) homoeopaths currently registered with the AHPCSA. A period of 12 weeks was given for participants to respond to the email. A total of 80 participants returned the questionnaire, but three of participants did not respond to all the questions in section A and B of the questionnaire. The final sample of 77 was 35% of the ideal sample size which was 225. This study represented homoeopathic practitioners in six of the provinces of South Africa, namely, Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, Western Cape and Gauteng province. According to Statistics South Africa (2017), there were homoeopaths practising in all nine provinces in South Africa. Therefore, three provinces are not represented in this study in terms of the location, challenges or awareness of biopuncture. Previous quantitative studies with a sample of homoeopathic practitioners also reported that the desired sample size was not achieved (Brown 2005; Babeletakis 2006; Broughton 2008; Miller 2020.) The majority (83%) of respondents were from the Gauteng province. Broughton (2008) also found that the majority of respondents (30%) in that study were from Gauteng province. The Gauteng province is the most populated area in South Africa. The researcher discovered that some homoeopaths have migrated to other countries and some lacked interest or had prior appointments preventing them from participating. The gender proportions were 33% male and 67% female.

Homoeopathy was introduced into South Africa over 40 years ago. It has progressed into a formalised register and has steadily become a popular complimentary therapy. All the participants held a minimum qualification in MTech: Homoeopathy. The majority (36%) of respondents had more than 16 years of experience in practice. There were some respondents with a great deal of experience in the profession who participated in the study. The longest reported time in practice was 45 years. The age groups of the respondents range from 26 years to 72 years, which suggests the pool of data was collected from respondents from all generations of homoeopathic practitioners, the least experienced to the most experienced. The broad spectrum of respondents also reflects the growth and evolution of homoeopathy from the classical homoeopathic practice initially introduced to the addition of the modality of biopuncture.

5.3 Objectives

These were the objectives of the study:

1. To determine homoeopathic practitioners' level and extent of knowledge of biopuncture by means of a self-administered questionnaire.
2. To determine the perceptions of homoeopathic practitioners with regard to biopuncture by means of a self-administered questionnaire.
3. To determine the attitudes of homoeopathic practitioners with regard to biopuncture by means of a self-administered questionnaire.
4. To determine homoeopathic practitioners' use of biopuncture treatment in managing a clinical case by means of a questionnaire.

5.3.1 Objective 1: Level and extent of knowledge of biopuncture with regard to biopuncture.

The participants answered a series of questions to determine their level of knowledge of biopuncture and their perceptions of biopuncture. Table 4.4 shows that there is reasonable availability and sources of information on biopuncture. Table 4.4 shows that 55% of the respondents acquired knowledge of biopuncture while they were at university as part of the homoeopathy programme curriculum. There are currently only two universities in South Africa that offer a homoeopathy programme, namely, UJ and DUT. Biopuncture is studied as an adjunctive therapy.

The knowledge about biopuncture was acquired from an authority figure in university, but the results of the study are from scientific knowledge in clinical practice. The review of literature revealed that homoeopaths use other treatment modalities including Bach flowers and phytotherapy which are used in clinical practice; such knowledge is also acquired as part of the qualification. Although all these modalities are acquired skills it is up to each practitioner to use it or not in practice. Prinsloo (2011) suggests that the homoeopathic educational course in South Africa has changed steadily over the years to ensure a higher standard of training. These steady changes are evident in that Brown (2006) found no evidence of the use of biopuncture in practices in her study, but Medina (2012) found the use of biopuncture in some homoeopathic practices in South Africa. The majority of the respondents reported that they had been using biopuncture in homoeopathic practice for 8 to 15 years. Table 4.13 shows that there was a significant relation between “*the number of years in practice*” and “*the use of biopuncture*”. The respondents who had less than two years in practice were all using the biopuncture treatment regime. This implies that biopuncture has been incorporated into the homoeopathic profession. There were no other correlations between other variables.

Kersschot (2014) defined biopuncture as a technique of injecting ultra-low dose medications into specific zones or points of the body in order to support bioregulation. The define of a homoeopathic injectable gives the technique and method of injecting used in biopuncture. The majority (72%) of respondents agreed with this definition, but 10% of respondents perceived of biopuncture to be just a homoeopathic injectable. The injected substance in a biopuncture prescription is an ultra-low dose remedy. This remedy would either be an antihomotoxin remedy, homoeopathic complex remedy or a simillimum in liquid form in ampoules. Although each remedy is prepared according to the homoeopathic pharmacopoeia, which makes them a homoeopathic preparation, each remedy is prescribed differently. The simillimum is prescribe when the practitioner has taken a case and has the totality of symptoms which matches a particular remedy. A homoeopathic complex remedy is calibrated to the disease clinical picture. An antihomotoxin remedy is for the following purposes: to reduce and hinder homotoxin activates, dispose of all homotoxins, and restore normal cellular regulation function.

Table 4.4 shows that some respondents learned of biopuncture through a colleague and some by scientific evidence in a journal article. The mode of hearing about it could have influenced the practitioners' perception and attitude towards the applicability of biopuncture in practice. Although the majority of respondents concur with the definition of biopuncture, the therapeutic technique is lacking in application. The biopuncture technique includes four phases consisting of a series of injections. All the phases are meant to be implemented for a lasting cure in the patient. Figure 4.12 illustrates that only 11% of participants always administer Phase 1 injections. This could be the reason some defined biopuncture as a 'homoeopathic injection', as only 5% of the respondents never administer Phase 3, which is the main indicated remedy. The biopuncture remedy might at times not be administered by injection but given orally. The remedy is still as effective.

Figure 4.2 shows that 62.3% of respondents stated that they have a significant degree of knowledge of biopuncture and that they were using it. This response suggests that the participants were confident enough in applying their knowledge in practice. There was a correlation with the variables Q10: "How would you describe your knowledge on biopuncture?" and Q3: "Years in practice in homoeopathy", with a chi-square p -value = 0.020 and Fisher exact test with a p -value = 0.025. The variable "Level that describe your knowledge on biopuncture" is dependent on "the numbers of years have you been in homoeopathic practice".

Respondents reported that biopuncture was perceived as a treatment for both acute and chronic disease conditions. Figure 4.2 illustrates that 22% of respondents thought that biopuncture is irrelevant in acute conditions. This is because most commonly documented cases are in the treatment of chronic conditions. Table 4.9 shows that 36% of respondents confirm that they have treated acute conditions. The participants elaborate that in most instances one to two injection sessions lead to the desired effect, to healing and cure. In the treatment of chronic conditions, 10% were uncertain, as they did not know enough about biopuncture to comment on the matter. According to Caulfield, Macron and Murdoch (2017) biopuncture has also been used as a prophylactic in the same way that an injected vaccine is used. Biopuncture is therefore applicable in most conditions although the phase injections are more applicable in chronic conditions (see Table 4.10).

77% have continuous treatment follow ups with their patient for series of injection application. The stages of detoxification and Phase 4 remedies which support cellular and organ function are needed in chronic cases.

5.3.2 Objective 2 and Objective 3: Attitudes and perceptions of homoeopathic practitioners with regard to biopuncture

Table 4.6 shows respondents' views of biopuncture. There were a variety but they are of similar attitude and perception. According to Table 4.6, 66% of respondents perceived biopuncture therapy to be an excellent treatment method and thought it should be used in homoeopathic practice. Injections are known to provide an immediate response and provide sustainable release of the remedy (Baars, Adriaansen and Eikmans 2012). This could be the same experience respondents had in their practice as 57% perceived biopuncture to be good treatment management. The practitioner also controls the dosage for the patient ensuring patient compliance. Table 4.6 illustrates that the respondents strongly agreed that homoeopaths should use biopuncture, as it was beneficial for their patients. According to Berna *et al.* (2020), when given an option, patients with chronic conditions such as mental illness and multiple sclerosis and rheumatoid arthritis would prefer an injection to oral medicament. The main reasons provided by patients is that at times they forget to take their medicament. Having a routine appointment ensures patients will not forget their medication. 50% of the participants approved of and think biopuncture should be within the homoeopathic scope of practice. It is also possible that the positive attitude towards biopuncture was influenced by the fact that some considered biopuncture to be a homoeopathic injection as seen in Table 4.5. This would make it not new but simply another method of administration of a homoeopathic remedy. The injected substance is a homoeopathic complex remedy. Hence the use of homoeopathic pharmacopoeia which applies homoeopathic principles in remedy preparations. The injections also have the advantage of improved patient compliance, and offer the practitioner the opportunity to observe the improvement weekly (Baars, Adriaansen and Eikmans 2012). As a CAM modality, biopuncture can be integrated into most medical health professions as it has been in the USA and other countries (International Academy of Biopuncture, 2011). 60% of respondents strongly agreed that biopuncture is needed as an adjunctive by homoeopaths in South Africa.

Table 4.13 and Table 4.14 illustrates the variable of “the number of years in practice” compared with other variables, and found that some had correlations. Some are discussed further below:

The p -value = 0.024 indicates that the variable “Use of biopuncture by homoeopaths is useful for good patient management” was dependent on the variable “Number of years have you been in homoeopathic practice”. This correlation would suggest that the respondents with years of experience have seen that the use of biopuncture was beneficial and effective to treatment of patient.

There was also a correlation in “Number of years the practitioners have been in practice” with a p -value < 0.05, which indicates the response to “Number of years biopuncture use” question is dependent. The response “Biopuncture use in practice” was dependent on “Number of years in practice”. These results further suggest that respondents who have newer, modern practices in this fourth industrial revolution time are using biopuncture (Blessing 2011). Biopuncture is practical for the practitioner.

Table 4.6 reflects that 4% of the respondents were not receptive to biopuncture, with one participant elaborating that biopuncture conflicts with classical homoeopathic philosophy. The classical homoeopathy principle is that only a single remedy is prescribed, while biopuncture uses complex remedies, which could cause aggravations or a reaction. One respondent commented: “It is not a pure form of homoeopathy. Injections should not be necessary except in autosanguis therapy as most remedies are well absorbed sublingually and are undesirable in children.” However, a complex remedy prescription is realistic and applicable in this modern fourth industrial revelation world (Blessing, 2011). Caincross (2012) suggests that disease prognosis and progress is much evolved in industrialised and developed countries, due to the modern lifestyle. Caincross (2012) elaborates that the modern day lifestyle is different than earlier times of simplicity.

Not all homoeopaths were comfortable with increasing the number of modalities in their practice. There are some who would have preferred not to prescribe complex remedies. Brown (2006) concluded that 16% of homoeopaths use only classical homoeopathy in their practice. According to Blessing (2011) there has always been a controversy amongst homoeopathic practitioner in the use of complex remedy.

In the initial use the controversy is the polyclinic which would be similar to that of orthodox/conventional medicine. It was assumed that 4% of respondents in the current study were not receptive to biopuncture were practising classical homoeopathy. There have not been other studies of profiles of clinical practice in homoeopathy in South Africa, other than Brown's (2006). However, it was concluded that the most important principle is to compliance The Organon of Medicine (De Schepper 2010). Aphorism 1 and 2 of this book outline the aim of homoeopathy (Hahnemann 1996):

Aphorism δ 1

The physician's highest and only calling is to make the sick healthy, to cure, as it is called.

Aphorism δ 2

The highest ideal of cure is the rapid, gentle and permanent restoration of health; that is, the lifting and annihilation of the disease in its entire extent in the shortest, most reliable, and least disadvantageous way, according to clearly realizable principles. (Hahnemann 1996).

Each practise is setup as differently with these purpose such as aphorism1 and **Aphorism δ 2** with the combination of the skill and known of the practitioner for best of the patient healing.

Five respondents reported that biopuncture had some undesired effects on administration as indicated by patients. These adverse effects included skin irritation and pain at the site of injection. A European study by Baars, Adriaansen and Eikmans (2005) concluded that in 2% of cases experienced an allergic reaction, and <0.1% experienced symptoms such as anaphylactic shock, nausea and abdominal/colic pain. More than 98% of homoeopathic practitioner rarely or never see cases these adverse symptoms associated with anthroposophical and homeopathic solutions for injection. These could influence the lack of wanting to use biopuncture.

One respondent expressed a concern with biopuncture as follows: “At the time the patients were not consistent for the follow-up injection. The desired healing response is not achieved.” This response could be a reason why there is the lack of application of injection phases. Patients might not be able to return as scheduled for each injection, whereas with an oral homoeopathic remedy they can take it at home at a time that suits them. Another respondent was concerned that: “Many patients fear and don’t like injections. There were concerns that there should be proper training available and done, as injecting is a skill. It also requires a piece of proper knowledge and familiarity with the anatomy which part of the anatomy and injection into the correct place.” There is a need for training in biopuncture. According to Miller (2020), CPD seminars is a way in which a practitioner can keep up to date with the advances of their profession. TopMed, Pharmed, -Heel, and Reckeweg are companies which conduct and host biopuncture trainings and seminars.

5.3.3 Objective 4: To determine homoeopathic practitioners’ use of biopuncture treatment in managing a clinical case

The data relates to Q15. 62% of the participants have a good/significant knowledge of biopuncture and are using biopuncture in practice. Although knowledge of many adjunctive therapies is gained from the curriculum at university, it is up to the practitioner to apply the acquired skills. Q20. Biopuncture is prescribed in 58% case of cases as an adjunctive modality and is not used as a "stand-alone" therapy, while 25% of the respondents find it effective as a "stand-alone" therapy.

Q15: Do you use biopuncture in your practice? And Q3: Number of years in a homoeopathic practice. The p -value = 0.003 which is < 0.05 which indicates the response to biopuncture question is dependent on how many years a participant has practised. There is a significant association between the variables number of years in practice and the use of biopuncture.

According to Kersschot (2016b), there are several companies that produce ampoules for injection such as Guna, Heel, OTI, Pfluger, Steigerwald, Wala, Weleda. The results showed that in South Africa most common suppliers of ampoules injectable remedies were TopMed, Pharmed, -Heel, and Reckeweg. These companies also are known to host some biopuncture seminars.

5.4 Application of the four phases technique

Regarding the four phases of treatment, the results of this study indicate that the techniques are not followed precisely. The results reflected that only 18% of respondents applied Phase 1, administering it in 50% of the cases in which they prescribed biopuncture. 33.9% of respondents used a Phase 2 remedy and applied it in 80% cases when biopuncture was prescribed. Phase 3, which is the specific remedy indicated for the patients' main complaint/disease condition was applied by 100% of respondents and Phase 4 by only 25.8% of respondents in 22.6% of cases when biopuncture was prescribed. The results revealed that many respondents did not abide by the four phases technique, with the majority just applying the indicated remedy only. This could be influenced by factors such as a lack of understanding of the basic principles behind the phases or that some patients are not sensitive and there might not be advanced toxin accumulation (as per the six-phase disease progression). Another reason could be that respondents are administering injections based on the way in which a homoeopathic substance is used, and in instances when a patient cannot orally receive the remedy due to vomiting etc. (Lozada et al. 2014; Deonarian 2012; Abdul-Rasheed 2013; Rajballi 2015; Kersschot 2005). There are also some respondents who stated that they prescribe biopuncture as a stand-alone therapy.

5.5 Name the most common conditions you treat or cases that you prescribe biopuncture

There were 60 participants who responded to this question. These were reported from a review of ULD injections used to treat systemic conditions such as musculoskeletal conditions, respiratory conditions, gastrointestinal conditions and neurological conditions. See also Appendix F.

The bar graph in Figure 4.13 shows that the majority (90%) of respondents treat musculoskeletal conditions. In 48% of cases the remedy used is Traumeel®.

Traumeel® has undergone many clinical trials and tests with most cases resulting in healing. Figure 4.14 elaborates on respiratory conditions; the most common specific remedy injection used in 34% of cases is Echinacea®. This remedy is known in homoeopathic and over-the-counter medicine to be an immune booster. Figure 4.15 shows that some respondents have never used biopuncture to treat illness of the gastrointestinal system, but those who did mostly used Spascupreel®. According to Heel Inc. (2012), this remedy is indicated for symptoms such as smooth musculature spasm and cramping, intestinal colic, abdominal cramp and menstrual cramps. Figure 4.16 shows that neurological conditions/illness were the area least treated with biopuncture. The specific remedy indicated by 18% of respondents was Cerebrum Compositum®. The remedy was also used by the participants in the treatment of emotional conditions and anxiety disorder cases.

Injectable remedies such as Tonic-Heel®, Circulo-Heel® have been reported to stimulate brain function and improve circulation which is linked to nervous symptoms and depression (Medina, 2012). These remedies can be used in healing of disease conditions such as depression, obsessions stress and neuritis (Bianchi, 2005).

Nye (2019) argues that biopuncture is not a cure-all treatment and may not be appropriate in cases such as cancer, AIDS, depression, high blood pressure or when there is serious cellular structural damage.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The results of this study demonstrate that biopuncture is a "holistic treatment", and can be used as an adjunct treatment to homoeopathic remedy treatment. The research aimed to ascertain the level of knowledge homoeopaths had on biopuncture. From the study it was deduced that 80% of respondents had significant knowledge of biopuncture. It was concluded that the main source of knowledge on biopuncture was obtained from training received at university as part of the curriculum but biopuncture seminars held by the Homoeopathy Association of South Africa also had been beneficial to polish skills. Based on these results, respondents are well aware of biopuncture. They are also keeping up with the growth and evolution of biopuncture therapy. They are continuously learning about the best ways to treat the "today" patient. Thus, biopuncture is a growing and increasingly utilised modality in South Africa. Biopuncture proven to be good therapeutic method in treating pain and inflammatory disorders.

It was concluded that most respondents understand and are able to differentiate biopuncture from a homoeopathic injectable. The analysis of results revealed that most respondents have a positive attitude towards biopuncture because biopuncture does not conflict with the philosophy of homoeopathy. Only 4% of the participants perceived it as conflicting with homoeopathic practice. The results show that there is diversity in treatment approach used by physicians in practice – either a "*classical homoeopathy or clinical homoeopathy approach*", with the understanding that each patient is unique. Each practitioner has their own style and method to ensure patients are treated and to ensure the best possible outcome for each individual. Responses from practitioners indicated adherence to Homoeopathic philosophy according to Aphorism 1 from the Organon of medicine: "the greatest call for the physician is to cure." (O'Reilly 1996). Biopuncture has proven to be effective and yield the desired healing effect (reducing pain and improving inflammatory illness) in patients hence it is used more frequently and the modality is growing in popularity. The research concludes that biopuncture is applicable to treatment of both acute and chronic cases.

Although 86% of respondents use biopuncture in practice, only a few follow the procedure of four phases and a series of injections. One has to consider that once the principle of biopuncture treatment is understood, each case requires its own phases of injection remedies. It is evident that practitioners develop their own protocols and apply their own experience and expertise as they treat each clinical case presented by the patient. The conclusion is that biopuncture is mostly administered for musculoskeletal system complaints as seen in most international documented cases. Biopuncture is safe to use as very few side effects were reported, mostly pain and irritation at the site of the injection of short duration. It is therefore no wonder that the results revealed that all new practices (less than 2 years) administer biopuncture where suited in case management, which shows that biopuncture has a future amongst South Africa homoeopaths.

6.2 Limitations of the study

- The low response rate (15%) of the population.
- There was inconsistency in answering the questions. Most questions did not have an explanation or comment opportunity. This could have allowed an in-depth understanding of the answers.
- Lack of literature on biopuncture. Existing literature is untranslated and limited to Germany, there weren't available in English. The researcher observed participants were unable to expand on literature review because participant lacked experiences in the use of the method of biopuncture four phase injecting.

6.3 Summary

The study revealed some limitations of the knowledge and perception of biopuncture in the South African context. It also obtained the extent of clinical use of biopuncture of the participants. The aim was reached and achieved. It was reflected that the number of years biopuncture has been used in South Africa is more than 16 years. The international perceptions and need for biopuncture was proven to be similar in South Africa. The results show that the level of knowledge of biopuncture is not dependant on the number of years a practitioner has been in practice.

6.4 Recommendations

- The Homoeopathic Association of South Africa and the Allied Health Professions Council of South Africa should provide more regular biopuncture training throughout South Africa.
- Perception studies are of importance. Homoeopaths should be encouraged and incite with Continuous Professional Development points as provided by AHPCSA, to participate in perception studies like this one to ensure a better response rate for future studies.
- The population of registered homoeopaths should be updated. Stats SA should have the general demographic statistics of homoeopaths (and all professions) on a database so that the population may be known.
- The questionnaire should have comment opportunities on each section (i.e. after section A comment, B comment, C comment). This may provide more information for the study. Possibly in future a similar study following a qualitative approach of interviewing practitioners could potentially provide richer data and a more in-depth understanding of practitioner responses.
- Further clinical studies should be conducted using the four phase series injection biopuncture technique and documented in a South African context. There are some studies which are in foreign languages and so are not available to English speakers.
- It was observed that in the case of management some patients were inconsistent in coming for follow-up injections. A comparative study should be conducted on the estimation of treatment outcomes from the patient's point of view compared to the homoeopathic practitioner. This could assist in a mutually realistic agreeable timeline for the patient and doctor.
- A clinical study to compare treatment using the four phase technique (series of injection) compared to a simple singular injection This would assist in evaluating the significance and importance of the biopuncture phase application in the treatment regime.
- A comparative study comparing oral administration versus injectable method in the treatment of a particular disease.

REFERENCES

- Abudul-Rasheed, A. 2013. The effectiveness of spinal manipulation and dry needling versus spinal manipulation and Traumeel®S injectable solution in the treatment of mechanical neck pain associated with trapezius myofascial trigger points. MTech: Chiropractic Durban University of Technology
- Allied Health Professions Council of South Africa. 2018. AHPCSA (online). Available: <http://www.ahpcsa.co.za/> (Accessed 8 July 2018).
- AHPCSA. 2016. *Register*. Available: <https://ahpcsa.co.za/practitioners/> (Accessed 16 March 2017).
- Asher, S.N. 2016. Trigger Points Explained. *Pivotal Health Solutions Chiropractic*.(Blog). Available on: <https://blog.phschiropractic.com/blog/niel-asher-education-trigger-points-explained> (Accessed 16 November 2019)
- Baars, E. W., Adriaansen-Tennekes, R. and and Eikmans, K. J. 2005. Safety of homeopathic injectables for subcutaneous administration: a documentation of the experience of prescribing practitioners. *Journal of Alternative & Complementary Medicine*, 11(4): 609-616.
- Baars, E. W., Jong, M. C. & Jong, M. U. 2012. Adverse drug reactions to anthroposophic and homeopathic solutions for injection: a systematic evaluation of German pharmacovigilance databases. *Pharmacoepidemiology and drug safety*, 21(12): 1295-1301.
- Baars, E. W. and Ellis, E. L. 2010. The effect of *Hepar magnesium* D10 on fibromyalgia syndrome: a pilot study. *European Journal of Integrative Medicine*, 2(1): 15-21. Available: <https://doi.org/10.1016/j.eujim.2009.12.002> (Accessed 20 April 2017).
- Babeletakis, N. 2006. A retrospective survey of post-graduate career paths of Durban Institute of Technology (DIT - Formerly Technikon Natal) homoeopathic graduates from 1994 to 2004. M.Tech, Durban University of Technology.
- Bergh, Z. B. and Theron, A. L. 2009. Knowledge (image). In: *Psychology in the work context*. Cape Town: Oxford University Press.

Bergh, Z. B. and Theron, A. L. 2009. *Psychology in the work context*. Cape Town: Oxford University Press.

Berna, F.; Anja S. Göritz, A.; Behra, G. and Moritz, S. 2020. Pill or needle? Determinants of the preference for long-acting injection over oral treatment in people facing chronic illness. *Progress in Neuropsychopharmacology & Biological Psychiatry*, 98(2): 15-21. Available: <https://doi.org/10.1016/j.pnpbp.2019.109798> (Accessed 11 May 2020).

Blessing, P. 2011. *Pathways of homoeopathic medicine*. Cham, Switzerland: Springer

Birnesser, H. and Stolt, P. 2007. The Homeopathic Antiarthritic Preparation Zeel comp. N: *A Review of Molecular and Clinical Data*, 3(1): 16-22.

Birnesser, H., Klien, P. and Weiser, M. 2003. Treating Osteoarthritis of the knee: A Modern homoeopathic medication works as well as COX 2 inhibitors. *Der Allgemeinarz*, 25(4): 261-264. Available: <https://www.researchgate.net/publication/240631949>. (Accessed 20 July 2018)

Brink, H., van der Walt, C. and van Rensburg, G. 2012. *Fundamentals of research methodology for healthcare professionals*. 3 ed. Cape Town: Juta and Company Ltd.

Broughton, T. C. 2008. A survey to determine the perception of registered homoeopaths in South Africa toward the availability of over the counter (OTC) homoeopathic medicines. MTech : Homoeopathy Durban University of Technology

Brown, A. 2006. An investigation of clinical methods, treatment procedures and treatment outcome of homoeopathic Practitioners in South Africa. MTech: Homoeopathy., University of Johannesburg. Available: <https://ujcontent.uj.ac.za/vital/access/services/Download/uj:4425/CONTENT1> (Accessed 16 May 2016)

Carlston, M. 2003. *Classical Homeopathy*. Philadelphia, PA: Churchill Livingstone.

Caulfield, T.; Marcon, A.R. and Murdoch, B. 2017. Injecting doubt: responding to the naturopathic anti-vaccination rhetoric. *Journal of the Law and Biosciences*, 4(2) 229-249. Available :doi:10.1093/jlb/lbx017. (Accessed: 26 May 2019).

Cesnulevicius, K. 2011. The bioregulatory approach to work-related musculoskeletal disorders: using the multicomponent ultra low-dose medication Traumeel to target the multiple pathophysiological processes of the disease. *Alternative Therapies* (17)2: S8-S17.

Chaffee, J. 1999. *Critical thinking, thoughtful writing: a rhetoric with readings*. Boston: Houghton Mifflin.

Chauhan, V. K. and Gupta, M. 2007. *Homoeopathic principles and practice of medicine: homoeopathic fundamentals*. Mumbai: B. Jain Publishers

Chiang, I. A., Cuttler, C., Jhangiani, R., Leighton, D. C. and Price, P. C. 2017. *Research methods in psychology*. Minneapolis, MN: University of Minnesota Libraries Publishing. Available on: <https://opentext.wsu.edu/carriecuttler/> (Accessed 20 November 2019)

Deonarian, V. 2012. The efficacy of phonophoresis with Traumeel® S in the treatment of upper trapezius myofasciitis. MTech: Chiropractic, Durban University of Technology.

De Schepper, L. 2001. *Hahnemann revisited: a textbook of classical homeopathy for the professional*. 4th ed. New Delhi: B. Jain Publishers (P) Ltd.

Dreyer, A., Kharwa, R., Moch, S. and Thandar, Y. 2012. *Pharmacology for nurses*. 4th ed. Pearson. South Africa. .

Du Plessis, S. 2012. A survey to determine the attitudes towards complimentary and alternative medicine by users in Cape Town. MTech: Homoeopathy, University of Johannesburg.

Ericksen-Pereira, W., Roman, N. and Swart, R. 2018. An overview of the history and development of naturopathy in South Africa. *Health SA Gesondheid*, 23(0): a1078.

European American Coalition on Homoeopathy(ECHAMP). 2004. *Homeotherapy; definitions and therapeutic schools*. Brussels, Belgium: European Coalition on Homoeopathic and Anthroposophic Medicinal Products (ECHAMP). Available: https://www.echamp.eu/echamp-resources/echamp-brochures/homeotherapy_-_definitions_and_therapeutic_schools.pdf (Accessed 20 January 2020).

Fink , A. 1995. *How to design surveys*. London: Sage.

Fisher, H., Lewith, G., Witt, C., Linde, K., von Ammon, K., Cardini, F., Falkenberg, T., Fonnebo, V., Johannessen, H., Reiter, B., Uehleke, B., Weidenhammer, W. and Brinkhaus, B. 2014. High prevalences but limited evidence in complementary and alternative medicine: guideline for future research. *BMC Complementary and Alternative Medicine*, 46(14): Part1-9. Available: <http://www.biomedcentral.com/1472-6882/14/46> (Accessed 5 January 2020).

Fisher, R. A. 1922. On the interpretation of χ^2 from contingency tables, and the calculation of P. *Journal of the Royal Statistical Society*, 85(1): 87-94. Available: <https://doi.org/10.2307%2F2340521> (Accessed 5 January 2020).

Gaier, H. C. 1991. *Thorson's Encyclopaedic Dictionary of Homoeopathy*. London, Thorsons.

Green, C. E. 2001. Can qualitative research produce reliable quantitative findings? *Field Methods*. 13(3), 3-19.

Hahnemann, S. 1981. *Organon of the medical art*. 6th ed. New Delhi: B. Jain Publishers (P) Ltd.

Harripershad , S. 2009. A survey to determine the perceptions of parents in the central durban area towards paediatric homeopathy. Mtech: Homeopathy Durban University of Technology.

Hauer, D., Weis, F., Krauseneck, T., Vogeser, M., Schelling, G. and and Roozendaal, B. 2009. Traumatic memories, post-traumatic stress disorder and serum cortisol levels in long-term survivors of the acute respiratory distress syndrome. *Brain Research*, 1293 (1): 114-120.

Heel. 2016. Heel products-biopuncture. Available: <http://www.heel.com>. (Accessed 13 October 2016).

Heel Inc. 2005. Routine therapy: the practitioner's handbook of homotoxicology. Albuquerque, NM: Heel Inc.

Heel Inc. 2003. Practitioner's handbook of homotoxicology. Albuquerque, NM: Heel Inc.

Heel Inc.2000. Biotherapeutic index. 5th ed.Germay. Baden. –baden

Heine, H. 1997. *Lehrbuch der biologischen Medizin*. Auflage Stuttgart: Hippokrates.

Homoeopathic Association of South Africa(HSA). 2018. Homoeopathic Association of South Africa. Available: <http://www.hsa.org.za/#> (Accessed 22 June 2016).

Hughes, J.L., Camden, A.A and Yangchen, T. 2010. Rethinking and Updating Demographic Questions: Guidance to Improve Descriptions of Research Samples. *The International Honor Society in Psychology*. 21(3).

International Academy of Homotoxicology (IAH) 2008. *Biopuncture and antihomotoxic treatment: the extra dimension of local injections*. IAH Presentations Library. Available: <https://www.yumpu.com/en/document/view/22414411/biopuncture-and-antihomotoxic-treatment>. (Accessed 6 June 2016).

International academy of biopuncture.2011. A superb addition to your compendium of clinical tools. *Alternative therapies* (17)6. pdf

Jasemian, Y. 2016. Spascupreel® for Primary Dysmenorrhoea. *International Journal of Complementary & Alternative Medicine*. 4(2):1-3.

Kaliyaperumal, K. 2004. Guideline for conducting a knowledge, attitude and practice (KAP) study. *AECS Illumination*, 4: 7-9.

Kamanli, A. A., Kaya, A.O. Ardicoglu, A.S., Ozgocmen, F., Ozkurt Zengin, A., and Bayık, Y. 2005. Comparison of Lidocaine injection, botulinum injection, dry needling to trigger points in myofascial pain syndrome. *Rheumatology International*.,25: 604-611.

Kayne, S. 2003. Global Perspectives. In: Carlston, M. *Classical Homoeopathy*. Pennsylvania. Churchill Livingstone.

Kayne, S. 2006. *Homeopathic pharmacy: theory and practice*. 2nd ed. China: Elsevier Churchill Livingstone.

Keim, A., Slis, J., Mendez, U., Stroup, E., Burneister, Y., Tsolaki, N., Gailing, O. and Goldman, J. 2013. The multicomponent medication Lymphomyosot improves the outcome of experimental lymphedema. *Lymphatic Research and Biology*, 11(2): 81-92.

Kersschot, J. 2016a. Biopuncture for tension headache. *European Journal of Integrative Medicine*, 8: 4-5.

Kersschot, J. 2016b. Biopuncture: Definition and indications in pain management. *European Journal of Integrative Medicine*, 8 (8): 5.

Kersschot, J. 2014. *Biopuncture: the management of common orthopaedics and sport disorders*. New York: Thieme Medical Publishers.

Khushali, P. 2020. *Law of Dynamisation*(image). Available: <https://www.drkhushali.com/homoeopathy.html> (Access: 19 March 2020)

Lozada, C. J., del Rio, E., Reitberg, D. P., Smith, R. A., Kahn, C. B. and Moskowitz, R. W. 2017. A double-blind, randomized, saline-controlled study of the efficacy and safety of co-administered intra-articular injections of Tr14 and Ze14 for treatment of painful osteoarthritis of the knee: The MOZArT trial. *European Journal of Integrative Medicine*, 13(1): 54-63.

Love, K. J. 2016. A study of the perceptions and experiences of patients receiving homeopathic care in the context of primary healthcare services within the public sector. MTech: Homeopathy, Durban University of Technology.

Lamula, S. B. 2010. The perception of homoeopathy amongst African adults resident in mnambithi municipality (Kwazulu-Natal, South Africa). MTech: Homeopathy, Durban University of Technology

Launiala, A. 2009. How much can a KAP survey tell us about people's knowledge, attitudes and practices? Some observations from medical anthropology research on malaria in pregnancy in Malawi. *Anthropology matters*.1(11):1-13. Available : anthropologymatter.com/index.php/anth_matters/article/view/31/53. (accessed: 19 Mar 2019)

Majola, S. F. 2015. The perceptions of homoeopathic doctors practicing in Kwazulu-Natal on their role in the public healthcare system in South Africa. MTech: Homoeopathy, Durban University of Technology

Marieb, E. N. 2015. *Essentials of human anatomy & physiology*. 11th ed. New York, NY: Pearson Higher Ed.

Maronna, U., Weiser, M. and Klein, P. 2000. Oral treatment of gonarthrosis with Zeel—results of a double-blind equivalence study versus Diclofenac. *Orthopaedische Praxis*, 36(1)285-291.

Medina, M. 2012. The perceptions and management of ADD/ADHD by homoeopathic practitioners in KwaZulu-Natal. MTech: Homoeopathy, Durban University of Technology.

Medinatura, 2015. Treatment Approaches injection therapy(brochure). Available: www.MediNatura.com (Accessed 16 May 2019).

Miller, A. 2020. Knowledge, perceptions, compliance and challenges amongst homoeopaths in South Africa regarding the newly implemented continuous professional development (CPD) accreditation system. MTech: Homoeopathy, Durban University of Technology

Moyseyenko, V. and Corgiolu, V. 2009. Effectiveness and tolerability of Lymphomyosot N solution for injection in treating oedemas and swellings of thrombotic or inflammatory aetiology in general clinical practice. *European Journal of Integrative Medicine*, 1(4): 251.

Munnis, C. 2014. Revised theory of quantum physics of pyonyensation of homoeopathic medicine. *Principia Unitas Volume VI On the Quantum Mechanics of Homeopathy*. Available: www.principia.net.au. (Accessed: 16 June 2019).

Murphy, K., Travers, P., Walport, M., Walter, P. and Theriot, J. 2010. *Janeway's Immunobiology*. Abingdon-On-Thames, UK: Taylor & Francis Group.

Musumba, C., Jorgensen, A., Sutton, L., Van Eker, D., Moorcroft, J., Hopkins, M., Pritchard, D. M. and Pirmohamed, M. 2012. The relative contribution of NSAIDs and *Helicobacter pylori* to the aetiology of endoscopically-diagnosed peptic ulcer disease: observations from a tertiary referral hospital in the UK between 2005 and 2010. *Alimentary Pharmacology & Therapeutics*, 36 (1): 48-56.

Nahler G, Metelmann H, Sperber H. Treatment of gonartrosis with Zeel—results of a randomised, comparative clinical trial with hyaluronic acid. *Orthopädische Praxis*. 32: 354-359.

Naidoo, M. 2008. A Survey to determine the knowledge and perception of biokinetics with respect to the chiropractic profession. MTech: Chiropractic, Durban University of Technology

Nichter M. (2008). *Global health. Why cultural perceptions, social representations, and biopolitics matter*. Tucson: The University of Arizona Press.

Nye, D.M.2019.*South African Society of Integrative a Medicine*. Available : <https://integrativemedicine.co.za/biopuncture/> (Accessed: 16 November 2019)

O'Reilly, W. B. ed. 1996. *Organon of the Medical Art*: by Dr Samuel Hahnemann. Palo Alto, CA: Birdcage Press.

Owen, D. 2007. *Principles and practice of homeopathy : the therapeutic and healing process*, China, Church Livingstone.

Popovich, S. V. 2015. Lymphomyosot is a biological regulative approach to the therapy of infantile diseases. *Child Health*, 67(7): 53-58.

Porozov, S. Cahalon, L. Weiser, M. Branski, D. Lider, O and Oberbaum, M., 2004. Inhibition of IL-1b and TNF-a Secretion from Resting and Activated Human Immunocytes by the Homeopathic Medication Traumeel S. *Clinical & Developmental Immunology*, 11 (2), pp. 143–149

Prinsloo, J.P. 2011. Legal legislation of homoeopathy. (online) Available : <http://www.bocura.co.za> (accessed 20 March 2018).

Rajballi, A. 2015. The relative effectiveness of homoeopathic Simillimum versus oral Traumeel? in the treatment of acute mechanical neck pain. MTech: Homoeopathy, Durban university of Technology.

Ratiani, L., Terunashvili, G. and Sanikidze, T. 2012. Anti-inflammatory activity of lymphomyosot during chronic diseases. *Georgian Medical News*, 205: 73-82.

Rautenbach, O. 2008. The Efficacy of Spascupreel S in the treatment of Repetitive Strain Injury of the Shoulder. MTech: Homoeopathy. University of Johannesburg.

Reus, V. and Weiser, M. 2000. Treating spasmodic conditions with Spascupreel; results of a prospective study. *International Journal for Biomedical Research and Therapy*, 29(1): 14-17.

Schneider, C; 2011. Traumeel- an emerging option to non-steroidal anti-inflammatory drugs in the management of acute musculoskeletal injuries. *International Journal of General Medicine*. (4) 25-234.pdf.

Bianchi, I. 2005 Geriatrics and homotoxicology by Dr. Ivo Bianchi. Reviewed in *Journal of biomedical therapy*. Summer:15.

Statistics South Africa. 2017. *Stats SA Republic of South Africa* [Online]. Available: www.statssa.gov.za (Accessed 1 December 2019).

Stedman's medical dictionary for the health professions and nursing. 2005. 5th edition. Philadelphia, PA: Lippincott, Williams and Wilkins.

Statistics Soutlion©, 2020. The *p*-value. Available: <https://www.statisticssolutions.com>. (Accessed 19 March 2020)

Stock, W., Frase, W., Kesschot, J., De Clercq, R., and Van Brandt, B. 2002. *Routes of administration for homoeopathic drugs: parenteral administration*. Expert opinion prepared on behalf of the International Society of Homotoxicology. Available: <http://www.biopathica.co.uk/Articles/General%20Items/53%20-%20Routes%20of%20Administration%20for%20Homeopathic%20Drugs%20-%20Parent.pdf> (Accessed 20 January 2020).

Swayne, J. 2000. *International dictionary of homoeopathy*. Edinburgh: Churchill Livingstone.

Ullman, R and Reichenberg-Ullman, J. 1995. *The patient's guide to homoeopathic medicine*. Edmonds, WA: Picnic Point Press.

Vithoulkas, G. 1980. *The science of homoeopathy*. New York: Grove Press.

Wagner, A. 2010. *About Abbey Wagner*. Available: <http://www.dr-abbey.co.za/about-dr-abbey> (Accessed 21/06/2017).

Weiner, H.L, Friedman, A., Miller, A., Khoury, S.J., al-Sabbagh, A., Santos, L., Sayegh, M., Nussenblatt, R, B., Trentham, D.E., Hafler, D.A. 1994. Oral tolerance: Immunologic mechanisms and treatment of animals and human organ specific autoimmune diseases by oral administration of autoantigens. *Ann. Rev. Immunol.* (12): 809-37. Available : <https://www.annualreviews.org/doi/abs/10.1146/annurev.iy.12.040194.004113> (Accessed 21/06/2017).

Weinstein, R.S. 2010. Glucocorticoids, osteocytes and skeletal fragility: The role of bone vascularity. *Bone*, 46(3): 564-570.

Wolf, N. 2010. *Biopuncture-Dr Wolf*. Available: <http://drwolf.co.za/biopuncture.html> (Accessed 30 /09/2016).

World Health Organization (WHO). 2008. *A guide to developing knowledge, attitude and practice surveys*. Geneva: WHO Press.

Yasgur, J. 1997. *Yasgur's homoeopathic dictionary*. 4th ed. Greenville, PA: Van Hoy Publishers.

APPENDICES

Appendix A: Email cover letter and consent

Subject: Biopuncture research: The questionnaire

Dear Prospective Participant

My name is Sine Mbokazi and I am currently doing my MTech: Homoeopathy at Durban University of Technology (DUT). In order to graduate, I must complete a dissertation. For the purpose of completing this dissertation, I will be conducting research on the knowledge, attitudes and perceptions of biopuncture amongst Homoeopathic Practitioners. Thank you for considering to participate in the study.

The questionnaire will require approximately 30 minutes to complete. There is no compensation for responding nor is there any known risk associated with partaking in such research. If you choose to participate in this study, please answer all questions as honestly as possible and complete the online questionnaire as soon as is possible. Participation is voluntary and you may at any stage withdraw from the study. You may ask any questions related to the study. Any and all findings of this study will be made available at the DUT library and later on the DUT Scholar portal. Your contributions will be kept strictly confidential, and none of your personal details will not be made public.

Please note that attached below is an information letter of this study. Please read it before completing the online questionnaire. The link to the questionnaire is below. Please complete the online questionnaire as soon as possible. If you require additional information or have questions, please contact me or my supervisor on the numbers listed below.

Researcher: Miss Sinenhlanhla Mbokazi: 0733121410 or 0662741433
email sinenonhla.m@gmail.com

Supervisor: Dr. Cornelia Hall on telephone number: 031 373 2514 or
email: corneh@dut.ac.za

By clicking the link to answer the questionnaire you hereby agree that you give consent to participate in the study.

Questionnaire link: https://docs.google.com/forms/d/e/1FAIpQLScZ1C_ofGfedgFy-xYpFtB8RWXupNMqrHOTJIHbc1z5hyk_Kw/viewform?usp=sf_link

Sincerely

Sine Mbokazi

062471433 email: sinenonhla.m@gmail.com

Appendix B: Letter of information



LETTER OF INFORMATION

Title of the Research Study:

Knowledge, attitudes and perceptions of biopuncture and its use in clinical practice by registered homoeopaths'

Principal Investigator/s/researcher:

N. Sinenhlanhla Mbokazi BTech: Homoeopathy (DUT)

Co-Investigator/s/supervisor/s:

Dr C Hall MTech: Homoeopathy (DUT)

Thank you for participating in the study. It is a requirement for the completion of my Master's Degree in Homoeopathy at the Durban University of Technology.

Brief Introduction and Purpose of the Study:

The purpose of this quantitative survey study is to investigate the knowledge, attitudes and perceptions of biopuncture and its use in clinical practice by registered homoeopaths. The survey will include quantitative and qualitative questions regarding biopuncture. According to Spies (2016) biopuncture is an injectable therapy which has ultra-diluted biotherapeutic regulators. The essence of biopuncture is to stimulate the immune system to heal the body. Biopuncture has recently become a popular adjunctive therapeutic method which has been integrated into many homoeopathic healthcare practices in South Africa. This study will investigate the attitudes, perceptions and knowledge of biopuncture amongst homoeopaths by means of a self-administrated questionnaire. This study will give homoeopaths an opportunity to provide useful information on their awareness and practical uses of biopuncture.

Outline of the Procedures:

Study Design

This study will utilise the convenience sampling technique. The participating homoeopaths will have to be currently registered with the Allied Health Professions council of South Africa (AHPCSA) and practising in South Africa. There are currently about 567 homoeopaths' practitioners on the list. A suitable sample size was determined to be at least 50% of the population being studied, thus at least 234 participants.

Study Population

The study population will consist of registered homoeopathic practitioners whom meet the study's inclusion criteria.

Inclusion criteria:

- Must be able to read and understand English
- A homoeopathic practitioner who is registered with the AHPCSA.
- Must be actively practising in South Africa.
- Must have an email account and access to internet

Exclusion criteria:

- Homoeopaths who are not registered with AHPCSA
- Participants who do not return the questionnaire within 8 weeks of commencing the study

Delivery of questionnaires:

The researcher will send you, the participant an emails: which contains a link to the questionnaire which will be conducted via an online questionnaire site being Google Questionnaire® and an attachment of the information letter. The questionnaire will take 30 minutes of your time to answer. In answering the questionnaire, you automatically give consent to participate in the study. To participate, simply click on the link to the survey and complete the survey that follows. The questionnaire will consist of closed questions where one will have the option to tick boxes and will end with a space for any comments and remarks. The questionnaire will be divided into three sections, section A: Demographics of the practitioner, Section B: The Attitudes, knowledge and perceptions of biopuncture and Section C: its use in clinical practice. Each section will have an instruction and description. A two-week period will be given to complete the questionnaires. Once you have completed the questionnaire, please notify me by an email. Every two weeks an email will be sent to all participants, who have not notified me that they have completed the questionnaire. The email will serve as a reminder that participants complete the questionnaire. There will be ongoing contact for six weeks, until the study is completed.

Collection of questionnaires:

You will be expected to complete the online questionnaire within two weeks. There will be a possible time extension of 4 weeks. Google Questionnaire® will send the completed questionnaires directly to the researcher. Should there be any participants who have not answered the questionnaire within this timeframe, those participants will be excluded from the study. The period to get responses to the questionnaire will be 4-8 weeks.

Risks or Discomforts to the Participant:

There is no associated risk and harm in your participation to this study.

Benefits:

You will have the satisfaction of knowing that the information shared could be of assistance to the homoeopathic profession. The summary outcomes of the survey will be made available to participants when the dissertation is complete. This information will be valuable to the growth and the evolution of the homoeopathic profession.

Reasons why the Participant may be Withdrawn from the Study:

Non-compliance, or the participant should they choose to withdraw.

Remuneration:

Participants will not be receiving any remuneration.

Costs of the Study:

There is no cost for the participants to be a part of the study. Receive one CPU point for CPD purposes.

Confidentiality:

To improve participation in the study, written consent will not be attained seeing as this typically discourages participant. Instead, the email that the participants receives will include the letter of information and information on how they are to give their consent to participate in the study. As will be clearly explained in the email, when you click on the link to the online survey you will in effect be giving your consent. The participant will be assured of strict confidentiality; no personal details will be published; it will all be on an anonymity. All questionnaires will be assigned a code on return, the completed questionnaire will be accessible by the researcher.

Research-related Injury:

There is no associated risk and harm in your participation to this study.

Persons to contact in the Event of Any Problems or Queries:

Supervisor: Dr Cornelia Hall
Email: corneh@dut.ac.za
Phone: 031 373 2514

Researcher: Sinenhlanhla Mbokazi
Email: sinenonhla.m@gmail.com
Phone: 0733121410

The Institutional Research Ethics Administrator on 031 373 2900. Complaints can be reported to the Director: Research and Postgraduate Support, Prof S Moyo on 031 373 2577 or moyos@dut.ac.za

General:

Potential participants must be assured that participation is voluntary and the approximate number of participants to be included should be disclosed. A copy of the information letter should be issued to participants. The information letter and consent form must be translated and provided in the primary spoken language of the research population e.g. isiZulu.

Appendix C: Questionnaire

Knowledge, attitudes and perceptions of biopuncture and its use in clinical practice by registered homoeopaths

The questionnaire consists of closed questions where one will have the option to tick boxes. There is also open end with a space for any comments and remarks.

*Require

Section A: Demographic

Please answer as accurate as possible.

Email *

Gender
Mark only one oval.

Female Male
Prefer not to say

What type of qualifications do you possess?

How many years have you been in homoeopathic practice?
Mark only one oval.

several months- 2 years 3years - 7 years
 8 years - 15 years 16 years and more
Other: _____

How old are you?

Which province is your practice based?

State the City and area of your practice.

Section B: The attitudes, knowledge and perceptions of biopuncture

Please answer honestly.

This section is composed of short closed ended questions and some questions which require that you answer with a brief comment. Please note there are answers where you can check more than one box.

Please elaborate when your options are other.

Where have you heard of biopuncture?

Tick all that apply.

A journal article or book. A colleague.

In university.

I have never heard of it. Other:

Which statement in your opinion best defines biopuncture:(if other please state the definition):

Mark only one oval.

It is a homoeopathic injectable.

It is a technique of injecting ultra-low dose medication, into specific zones or points of the to support bioregulation.

Other:

How would you describe your knowledge on biopuncture? (if other please state elaborate)

Mark only one oval.

have heard little about biopuncture.

I have a significant degree of knowledge on biopuncture

I have a significant degree of knowledge and I am using it as a treatment regime in practice

I have no knowledge about biopuncture, (never heard of it) Other:

Which of the following statements best reflects your view of biopuncture? Tick all that apply.

Tick all that apply.

I am uncomfortable with it but it is effective for some patients

Biopuncture therapy is an excellent treatment and it should be in homoeopathic practice. Biopuncture isn't homoeopathic and it shouldn't be in a homoeopathic practice

I perceive a homoeopathic injection to be the same as biopuncture

It is applying the principals of antihomotoxicology and scientifically sound. Biopuncture is effective and works but I will never use it in my practice.

I would attend a biopuncture training course.

In the treatment of acute conditions (fever, gastroenteritis, coughing etc...) do you think that biopuncture is... (if other please state elaborate)

Mark only one oval.

Applicable (can be prescribed as treatment) Not to be prescribed as treatment

Other: _____

In the treatment of chronic conditions (diabetes, cystic fibrosis, etc.), do you think that biopuncture is... (if other please state elaborate)

Mark only one oval.

Applicable (can be prescribed as treatment) Not to be prescribed as treatment

Other: _____

Please state your views on the following statements.

Mark only one oval per row.

_____	The use of Biopuncture management by homoeopaths is useful for good patient adjunctive	_____	The homoeopaths use of Biopuncture is needed
-------	--	-------	--

<p>in South Africa The use of strongly Biopuncture by agree agree. neutral disagree homoeopaths conflicts with strongly the traditional philosophy of disagree homoeopathy</p> <p>The administration of Biopuncture is as an adjunctive within the homoeopathic scope of</p> <p>_____ practice</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you use biopuncture in your practice? (if other please state elaborate)
Mark only one oval.

Yes, No
Other: _____

Section C: A retrospective use in clinical practice of biopuncture.

This section is to be answered by participant who prescribe(use) biopuncture in practice.
This Section is composed of short closed ended questions and some questions which require that you answer with a brief comment.

Is biopuncture medicine affordable and does it bring in a profit?

Where do you buy your injectable ampoules?

Do medical aids pay for biopuncture therapy treatment?
Mark only one oval.

yes, No
Other: _____

How many years have you been using biopuncture in practice? *

How many therapy sessions on average does each patient require?
Mark only one oval per row.

1 2 3 4 or more

Acute condition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chronic condition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there times when you prescribe biopuncture only?
Mark only one oval.

No, only used as an adjunctive to a remedy. Yes, when It is a follow-up injection
Other: _____

What is the average time biopuncture therapy session?
Mark only one oval per row.

less 15 min about 30 min more than 45 min

For an initial for a	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
follow up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Theoretically, there are four phases when we approach the patient. To what extent on an average, do you follow the biopuncture technique?
Mark only one oval per row.

Always 100% Usually 80% Often 50% Sometimes 30% Never 0%

Phase 1: Lymphomyosot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phase 2: Traumeel® injections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phase 3: a specific remedy,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phase 4: for cellular support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What are some of ampoules (if any) that you most frequently use in the treatment of Musculoskeletal system medical conditions/ illness?

What are some of ampoules (if any) that you most frequently use in the treatment of Respiratory system medical conditions/ illness?

What are some of ampoules (if any) that you most frequently use in the treatment of Gastrointestinal system medical conditions/ illness?

What are some of ampoules (if any) that you most frequently use in the treatment of Neurological system medical conditions/ illness?

What are some of ampoules (if any) that you most frequently use in the treatment of urogenital system medical conditions/ illness?

Name the most commonly conditions you treat or case that you prescribe biopuncture?

Which are some of the adverse or undesired effects which have been experienced by your patients in the use of Biopuncture: (if any, please tick all relevant answers and add those which are not listed if necessary)

Tick all that apply.

slight irritation of the skin

local swelling, redness of skin Allergic reactions. anaphylactic shock

nausea and abdominal pain on site of injection

pain during or after

injection

Other: _____

Are there, in your opinion, other disadvantages in the use of biopuncture? (please elaborate)

Powered by



Knowledge, attitudes and perceptions of biopuncture and its use in clinical practice by registered homoeopaths'

Appendix D: Letter to Dr Lamula requesting permission to use questionnaire



Dear Dr. Lamula

Re: Request for permission to utilise the questionnaire that was for survey THE PERCEPTION OF HOMOEOPATHY AMONGST AFRICAN ADULTS RESIDENT IN MNAMBITHI MUNICIPALITY.

I am currently registered for a Master's Degree at Durban University of Technology. In order for me to attain my degree it is required that I complete a dissertation. My dissertation will be a survey on the 'Knowledge, attitudes and perceptions of biopuncture and its use in clinical practice by registered homoeopaths.

The purpose of study will be to investigate the knowledge, attitudes and perceptions of biopuncture and its use in clinical practice by registered homoeopaths. The survey will include quantitative and qualitative questions regarding biopuncture. Biopuncture has recently become a popular adjunctive therapeutic method which has been integrated into many homoeopathic healthcare practices in South Africa. This study will give homoeopaths an opportunity to provide useful information on their awareness and practical uses of biopuncture.

I am requesting to modify and use your questionnaire used in your dissertation: The perception of homoeopathy amongst African adults resident in mnambithi municipality for the purpose of my study.

Kind Regards

Sine Mbokazi

Dr C. Hall

MTech: Homoeopathy Student

Supervisor.

Email: sinenonhla.m@gamil.com

Email: corneh@dut.ac.za

Appendix E: Demographics

How many years have you been in homoeopathic practice

Table E.1: Number of years in practice.

	Frequency	Percent
Non- responsive	3	3.9
16 years and more	24	31.2
27 Years	1	1.3
3 months	1	1.3
3 years - 7 years	7	9.1
39 yrs	1	1.3
45 years	1	1.3
8 years - 15 years	28	36.4
several months- 2 years	11	14.3
Total	77	100.0

State the City and area of your practice

Table E.2: The results area and city of homoeopathic practice

	Frequency	Percent
Ballito	2	2.6
Bedfordview	1	1.3
Benoni	1	1.3
Brakpan	1	1.3
Bryanston, Johannesburg	1	1.3
Cape Town	4	5.2
Cape Town Oranjezicht	1	1.3
Cape town sea point	1	1.3
Centurion, Pretoria	1	1.3
Durban	6	7.8
Durban - Umhlanga/Westville	3	3.9
Durban North	1	1.3
Durban, Bluff	1	1.3
Durban, Glenwood	1	1.3
Durban,Berea	1	1.3
East London	2	2.6
Edenvale	1	1.3
Empangeni	1	1.3
George	3	3.9
Heidelberg	1	1.3

Johannesburg	9	11.7
Johannesburg Sandringham	1	1.3
Johannesburg, Alberton	1	1.3
Johannesburg, Parkmore	1	1.3
Johannesburg, Randburg	3	3.9
Kempton Park	1	1.3
Knysna	2	2.6
Middelburg	1	1.3
Midrand- Randjesfontein Country Estate	1	1.3
Modimolle	1	1.3
Mossel Bay, Garden Route	1	1.3
Musgrave, Durban	1	1.3
North Coast of Durban	1	1.3
not applicable	1	1.3
Pietermaritzburg	2	2.6
Pinetown	1	1.3
Polokwane	1	1.3
Port Elizabeth	1	1.3
Pretoria	2	2.6
Rant en Dal, Krugersdorp	1	1.3
Rivonia sandton	2	2.6
Salt Rock	1	1.3
Sandton JHB	1	1.3
Tsakane Brakpan Johannesburg	1	1.3
Upington	1	1.3
Vanderbijlpark	1	1.3
Vereeniging	1	1.3
Verulam	1	1.3
Wierdapark	1	1.3
Total	77	100.0

Appendix F: Injectable ampoules

Injectable vail	musculoskeletal	Respiratory	Gastrointestinal	Neurological	urogenital
Have not apply in this condition	1	18	14	26	27
Aconite				1	
Apis compositum®					1
Berberis-Homaccord®					5
Bronchalis-Heel		1			
Bryonia – Stannum (wala)	1			1	
Cantharis compositum					2
Causticum compositum					1
Cerebrum compositum®	1		1	11	
Coenzyme compositum	6	3		8	
Colocyntis-Homaccord®			2	2	
Discus compositum®	19			6	
Echinacea compositum®	1	21	2		5
Engystol®	1	14			
Euphorbium (Sinus Relief™)		1			
Ferrum-Homaccord®	1	1			
Galium-Heel®	1		1	1	
Gelsemium-Homaccord®				1	
Gripp-Heel®	1	17			
Hepar compositum®			6		
Hepeel	1		4		

Hormeel	1			1	
Ignatia-Homaccord®				1	
Lymphomyosot®	14	14	9	4	9
Mucosa compositum®		11	9		2
Neuralgo-Rheum	13			7	
Neuro-Heel®	2			1	
Nux vomica-Homaccord®			9		
Ovarium Comp.	1				4
Pulsatilla compositum.		1			
Reckweg R1, R 49, R19	1	3	1		1
Sabal-Homaccord®					1
Selenium-Homaccord				1	
Solidago compositum					3
Spacupereel®	28	4	14	7	4
Testis compositum®	2				5
Tonico-Heel®	1	1	1	6	
Tonsilla compositum		3		1	
Traumeel®	30	9		14	9
Ubichinon compositum®	1			1	
Zeel®	29			2	

Appendix G: Editing certificate

DR RICHARD STEELE

BA, HDE, MTech(Hom)

HOMEOPATH

Registration No. A07309 HM

Practice No. 0807524

Freelance academic editor

Associate member: Professional Editors'

Guild, South Africa

110 Cato Road
Bulwer (Glenwood), Durban 4001

031-201-6508/082-928-6208

Email: rsteele@vodamail.co.za

EDITING CERTIFICATE

Re: Nonhlakanipho Sinenhlanhla Mbokazi

Master's dissertation: **KNOWLEDGE, ATTITUDES AND PERCEPTIONS OF BIOPUNCTURE AND ITS USE IN CLINICAL PRACTICE BY REGISTERED HOMOEOPATHS**

I confirm that I have edited this dissertation and the references for clarity, language and layout. I returned the document to the author with track changes so correct implementation of the changes and clarifications requested in the text and references is the responsibility of the author. I am a freelance editor specialising in proofreading and editing academic documents. My original tertiary degree which I obtained at the University of Cape Town was a B.A. with English as a major and I went on to complete an H.D.E. (P.G.) Sec. with English as my teaching subject. I obtained a distinction for my M.Tech. dissertation in the Department of Homoeopathy at Technikon Natal in 1999 (now the Durban University of Technology). I was a part-time lecturer in the Department of Homoeopathy at the Durban University of Technology for 13 years.

Dr Richard Steele

2020-08-15

per email