

Titel der Masterthesis

Gibt es eine einheitliche Meinung über das
Biodynamische Model von William Garner
Sutherland unter Osteopathen in bestimmten
Teilen von Deutschland?

**Masterthesis zur Erlangung des Grades
Master of Science in Osteopathie
Donau Universität Krems
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Wiener Schule für Osteopathie**

**von Wulf Gehrmann
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Datum

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Abstract

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Title: Is there a Unanimous Opinion on William Garner Sutherland's *Biodynamic Model* among Osteopaths in Certain Parts of Germany?

Keywords: Sutherland WG, cranial osteopathy, biodynamic, quantitative social research and Germany.

Study Design: National quantitative social research in osteopathical basics.

Outline: WG Sutherland's *Biomechanic Model* seems to be viewed similarly by osteopaths in theory and practice, a fact which does not apply to the *Biodynamic Model*. The difference between these two models does not seem to be clear among osteopaths in tribute to Still and Sutherland on the one hand and/or approaches from other osteopaths or different professions on the other hand. Exactly because of this constellation several questions arise: "Is there a general opinion about the *Biodynamic Model* at all?", „Who has this opinion?“, „Are there different views on the *Biodynamic Model*?“ and „What is the overall knowledge about Sutherland's *Biodynamic Model*?“ Answers to these questions could be helpful to differentiate certain osteopathic approaches from others; moreover they could be of help to get an easier approach to osteopathy at all.

Research Question & Objective: Is there a unanimous opinion on William Garner Sutherland's *Biodynamic Model* among osteopaths in certain parts of Germany?

Hypothesis: There is no unanimous opinion concerning WG Sutherland's the *Biodynamic Model* among osteopaths in certain parts of Germany.

Relevance for Patients: If patients visit an osteopath they should be certain to get osteopathic treatment and not an invisible different approach that only looks like osteopathic treatment.

Relevance for Osteopathy: A potential borderline to step out of osteopathy should be discovered. This is of specific necessity concerning the biodynamic cranial work, because only the mental direction of any visualization decides whether it is in line with Still's and Sutherland's principles or not.

Methodology: National quantitative social research in osteopathical basics started in December 2007 and finished in December 2008 by internet/email questionnaire. One pretest (N=4) was conducted in January 2008. N=274 osteopaths from certain parts of Germany were interviewed. Timeframe of investigation was March 2008; the questionnaire was sent out on February 28, 2008 and a second call for participation was sent out on March 9, 2008. The questionnaire was structured as a big block system containing personal information, the time of duration, 15 questions (10 closed and five semi closed) and one additional free text area for comments.

Results from Theoretical Part: WG Sutherland described two models in cranial osteopathy: a *Biomechanic* and a *Biodynamic Model*. The only difference between the two models is *The Potency of the Tide* which turns the biomechanic approach into a biodynamic approach. Within Sutherland's *Biomechanic Model* the correction of osteopathic dysfunctions is done by ligaments and membranes. Concerning his *Biodynamic Model* the correction of dysfunctions should be done by something invisible inside the body fluids. The characters of the body fluids which should be responsible for the correction are labelled as *The Potency of the Tide* and they should get their power from *The Breath of Life* from Genesis. The expressions *The Potency of the Tide* and *The Breath of Life* should be palpable as a tide within a tide of the dynamics in body fluids with a frequency of eight to 12 motions per minute. Sutherland called this a Primary Respiratory Mechanism (PRM). Sutherland's models can also be found in Still's principles. Analysis and comparisons of their individual behavior, their specific terminology and their individual use was investigated because Sutherland never used the term *Biodynamic*.

Results from Practical Part: N(g)=274 osteopaths received the questionnaire. N=71 were returned and had to be reduced by N=11 drop outs. A total of N(t)=60 was analysed in detail. The overall participation was 25,90% with 4,01% drop outs. Total participation was 21,89% consisting of 29 female and 31 male osteopaths. Concerning the basics of Sutherland and Still the study group showed a high level of unanimous opinion or knowledge. 16,66% (N=10) osteopaths added free text together with the semi closed question No. 15, only two comments were accepted. Sutherland's *Biodynamic Model* is unanimously known and accepted among osteopaths, but without a clear perspective on the practical aspects of the treatment. N=6 added comments at the end of the form. The hypothesis could not be verified because there is a unanimous opinion on Sutherland's *Biodynamic Model* among osteopaths in certain parts of Germany.

Critical Reflections / Perspectives / Conclusions: To use a digital questionnaire is useful but also risky. If the questions are not well prepared or not thought through thoroughly participants might be lost. At the same time there is a chance of losing additional participants if mistakes are made on a formal level, i.e. using less or wrong digital features. Thus, there is an additional chance to fail and/or to reduce the validity of the results. The principles of Still and Sutherland and osteopathy in general are viewed much more clearly now. This has been mainly influenced by the work on linguistics and social psychological principles and will be extended in the future.

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Faithfully yours,

Wulf

1 Introduction

This thesis is part of social quantitative research in osteopathic basics. It consists of two big parts: a theoretical and a practical part. The theoretical part reviews osteopathic literature on the two models of WG Sutherland within osteopathy: his *Biomechanic Model* and his *Biodynamic Model*. The substantial part of the theoretical section is the review of steps and content of osteopathic development and the common use of Still's and Sutherland's specific terminology. The practical part describes quantitatively the current opinion or knowledge on Sutherland's *Biodynamic Model* among osteopaths in certain parts of Germany. The decision to conduct this study was motivated by recalling facts and personal experiences from elementary osteopathic education. In the course of elementary osteopathic education in Germany both Sutherland's *Biomechanic Model* (Sutherland 1990, p.119; 2004, p.I-109)^{1 2} and his *Biodynamic Model* (Sutherland WG. 1990, p.X; 1998, p.297-8; 2004, p.II-259)^{3 4 5 6} were part of teachings and discussions (College Sutherland, Schlangenbad, Germany 1998 to 2003).⁷ To answer questions or to supplement and extend knowledge the college teachers recommended basic osteopathic literature (i.e.):

- Teachings in the Science of Osteopathy, Sutherland WG, SCTF, Rudra Press, Reprint 1990.
- Cranial Bowl, Sutherland WG, Free Press, Reprint 1994.
- Osteopathy in the Cranial Field, Magoun HI, Orig. edition, sec. Printing, SCTF, Denver 1997.
- Life in Motion, Becker R, Stillness Press, Portland/Or. 1997.
- Stillness of Life, Becker R, Stillness Press, Portland/Or. 2000.
- Contributions of Thought, Sutherland WG, SCTF, sec. Edition, Rudra Press, Reprint 1998.

Osteopathic teachers from College Sutherland in Germany referred to Sutherland's literature in a very similar way. In contrast to this attitude they showed different approaches and interpretations of Sutherland's and Still's principles in practice. Studying the literature it becomes obvious that no clear or sufficient regulations for a practical approach can be found; Still recommended to think well and to use the principles of osteopathy (Still 1986, p.11-12; 2005, p.I-217).⁸ Sutherland's *Biomechanic Model* was regarded as having many details in common with Still's principles, but in personal discussions with osteopathic colleagues from College Sutherland different opinions on practical handling of Sutherland's *Biodynamic Model* became evident. Thus, a broad variety of understandings existed, ranging from no distinction between these two models to no clear distinction at all. Some of them seemed to mix the models arbitrarily and others seemed to think about further states or maybe new interpretation of Sutherland's model as, for example, introduced by James Jealous and

Thomas Shaver. The osteopathic language and specifically individual osteopathic terms did not seem to be clear within their contexts either. Obviously there seemed to be a common understanding on both models, but the osteopathic terminology was not used coherently. Identical osteopathic terms created by Still and Sutherland seemed to be associated with different meanings and contexts. These terms are (i.e) *The Potency of the Tide, The Breath of Life, transmutation, biogen, man is triune, Trinity, etc.* (Still AT 2005, p.334, 17; Sutherland WG 2004, p.37, 30, 54). For example, some of the teachers and colleagues used the term „*biodynamic*“ to show characters of treatment focusing on body fluids and their communications. Others used the term „*Biodynamic*“ as a noun, thereby visualizing something hypothetical or spiritual inside the body’s fluids that should restore health. In this case „*Biodynamic*“ refers to an independent field. These findings suggested a more accurate investigation of the individual use of osteopathic terminology. In order to find out possible regularities when using osteopathic terms we need to take a closer look at the terms mentioned above: their origins, their individual significance and their contextual use were investigated. From this vantage point the question: „Is there a unanimous opinion among osteopaths on WG Sutherland’s *Biodynamic Model*?“ arose.

2 The Main Question and the Goal of Study

The objective of this study is to find out whether there is a unanimous opinion on WG Sutherland’s *Biodynamic Model* among osteopaths in today’s Germany. Certain osteopathic terms and their meanings referring to theory, philosophy and practical approaches are not well defined. Therefore there is the urgent need to search for a starting point or question concerning Still’s and Sutherland’s models at all. Osteopathic literature does not clearly point out how to think and work on this subject, because no author provides a manual on how to read their texts and how to use common and specific osteopathic terms, neither in theory nor in practice. This situation will not help osteopaths to be acknowledged by related and other professions. Only a clear and well defined differentiation between Sutherland’s two models will guarantee professional acknowledgement to osteopaths. In order to discuss osteopathically and to be better understood by others a survey on whether there is a unanimous opinion or not is necessary. Because the *Biomechanic Model* seems to be regarded more or less similar the focus is put on the *Biodynamic Model* and the different interpretations of the *Biodynamic Model* culminated in the question:

Is there a Unanimous Opinion on WG Sutherland’s *Biodynamic Model* among Osteopaths?

A pretest was conducted on this question with a first draft questionnaire in which four German osteopaths participated. The result was that they did not show a unanimous opinion

on Sutherland's *Biodynamic Model*. In the conference that took place after the test it became obvious that all of them were very interested in the question and encouraged further investigation. The pretest group suggested starting with a locally limited investigation in Germany. They recommended to choose a North South axis in Germany. Thus the main question was finally modified to:¹

Is there a Unanimous Opinion on WG Sutherland's *Biodynamic Model* among Osteopaths in Certain Parts of Germany?

3 Hypothesis

The results of the pretest indicated that there is no unanimous opinion on WG Sutherland's *Biodynamic Model* among osteopaths in certain parts of Germany. In the pretest group his *Biomechanic Model* was viewed very similar in contrast to the *Biodynamic Model*. Exactly because of this situation it is important to find out whether there is a unanimous opinion, who shares it or who has this opinion and what exactly is this opinion.

4 Methodology

The study was conducted by using quantitative social research methods. The design of the study, the study group and the analysis of the relevant literature is described in this chapter.

4.1 Design of the Study

In chapters four and five of this thesis the motivation for and development of the main question have been described in detail. This chapter describes how the development of this thesis was influenced by social research categories and why this method was chosen. The main question, seen from a general perspective, needed to be placed almost naturally in the field of social research, because individual opinions are the main part of scientific interests. In the first place social research demands the decision if the data collected needs to be prefaced and done quantitatively or qualitatively. If you take the title of this thesis into consideration an investigation of theories and thereof derived hypotheses could have been done as well, but they have to be checked empirically. This constellation excellently allowed the application of quantitative social research (Bemerburg 2006, p.3).⁹

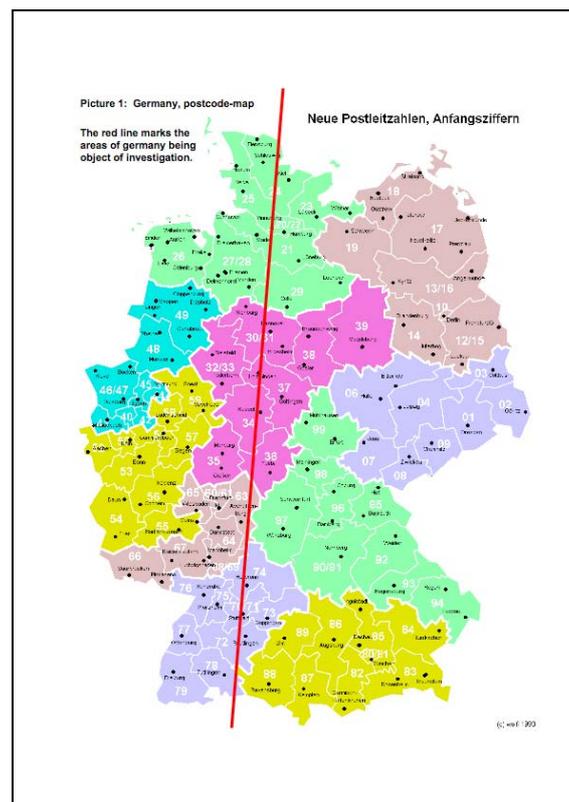
¹ In addition, to come close to such a result principles of social psychology were used to work on Still's and Sutherland's models (co.chap. 7.2).

Quantitative social research is one specific type of empirical social research; quantitative methods are used to measure social conditions. This includes the choice of the objectives, the work on the objectives and the analysis of data. Quantitative methods depend on a hypothesis which will be verified or falsified; usually quantitative methods are used to investigate elections and/or economic theories (www.uni-protokolle.de 2008). The questions have to be categorized in such a way that the answers are countable; this allows statistical evaluation (Bemerburg 2006, p.5). Every participant in quantitative social research gets the same questions with limited opportunities for answers (closed questions). In case of an additional possibility to give free text answers, they are called semi open questions. And finally, it is cheaper to extract quantitative research data, because analysis can be done much easier by using statistical software. Nonetheless, quantitative social research is criticized because of its low degree of individuality. Another point of criticism is that we all know that the same questions will not guarantee the same perception with every participant. Thus, it is only possible to measure items which were defined before the practical investigation started (www.uni-protokolle.de 2008).¹⁰

4.2 Definition of the Study Group

The investigated group was limited to Germany in the first place and then to three German zip code areas (two, three, seven) secondly, thereby representing a North South gradient of Germany. The limitation to zip code areas was decided because the largest osteopathic organization in Germany has listings of graduated osteopaths in Germany sorted by zip code areas and not by states. There might be a chance to come up with the result of a North South gradient besides the common statistical findings, their interrelationships and the questions of the form.

Picture 1: Selected German Zip Code Areas



4.3 The Literature

In this chapter it is laid out how the literature was used. The chapter starts by pointing out the different bibliographical locations, goes on by describing the strategy, then lines up the keywords and the chapter ends by classifying the literature in four categories.

4.3.1 Sources

Review of the Literature (Digital & Print Media) in Adequate Databases:

Pubmed, Ostmed, German Central Bibliotheca of Medicine / ZB med Cologne, Museum of AT Still University in Kirkesville, printed books, eBooks, journals, Google, various web dictionaries and encyclopedias.

4.3.2 Keywords

- **Background methodology:** Quantitative social research, statistics percentage, zip code areas of Germany, population of Germany.

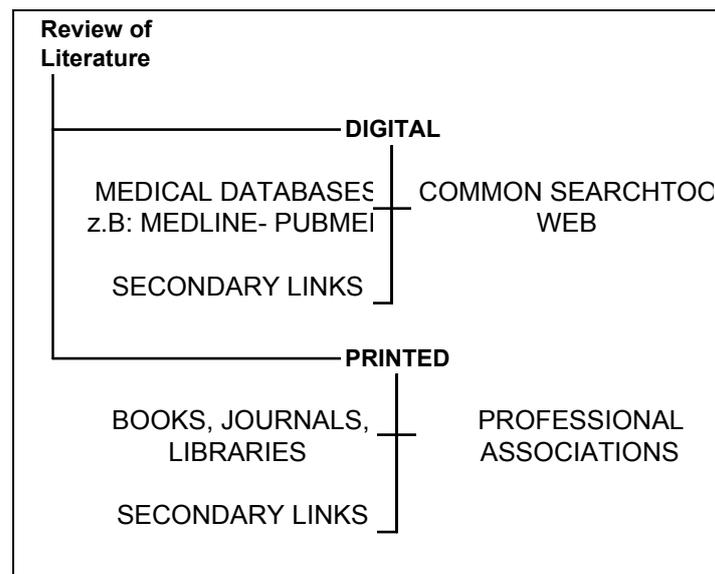
-
- **Primary keywords for research in relevant osteopathic literature:**
principle/s, mechanic/al, basic, osteopathy, philosophy of osteopathy, student/s, education, body, unit, structure, function, self healing, mechanism, health, biogen, triune, transmutation, coaxial, potency of the tide, tide, PRM, primary respiratory, reciprocal, fulcrum, selfshifting, tension membran, ligament/s, strain/s, pattern, mobility, motricity, LCS, liquor cerebro spinalis, cerebrospinal fluid, csf, law, artery/ies, veins, lymphatic, drainage, neurological, nerve/s, breath of life, frequence, cranial, cranial rhythmic impulse, rhythmic impulse, liquid light, Biodynamic, biodynamic.
 - **Secondary keywords for theoretical part of thesis:**
biogen, triune, T/trinity, Biodynamic, biodynamik, biodynamic, Biodynamik, Theosophie, theosophy, Thales von Milet, Thales of Miletus, Herbert Spencer, Wilhelm Reich, Carl Gustav Jung, Rudolf Steiner, Walter Russel, antroposophy, Antroposophie, Tiefenpsychologie, vegetotherapy, Vegetotherapie, linguistics, semantics, social psychology.

The Keywords were Modified or Broadened at the Databases whenever Logical and/or

Possible:

- ie = y
- and/or
- Combination of keywords, maximum three.
- Living persons were checked in two ways when the first way failed. If available the first and last name were checked or alternatively the last name and initials.

Picture 2: Review of Literature



4.3.3 Organization of the Literature

The Relevant Literature was Organized in Four Blocks:

- First order: Anything written by WG Sutherland or AT Still.
Anything written personally sanctioned by WG Sutherland or AT Still.
- Second order: Every source except sources of first order.
Every source linked directly to the keywords.
Every valid text referring to Sutherland's and Still's concepts.
- Third order: Every secondary link not belonging to first, second or fourth order.
- Fourth order: Every methodological, statistical or encyclopedical source.

5 THEORETICAL PART

The theoretical part contains chapters 5.1 to 5.3. Chapter 5.1 gives information about WG Sutherland, his relationship to AT Still's osteopathic philosophy and details about his *Biomechanic* and *Biodynamic Models*. In chapter 5.2 four professionals from outside the osteopathic profession and their philosophical approaches as well as their use of the term *Biodynamic* are investigated. The last part, chapter 5.3, gives a summary of the results of the relevant osteopathic literature.

5.1 William Garner Sutherland

This chapter deals with historical information about Sutherland and reviews his two models as part of osteopathy: a *Biomechanic Model* and a *Biodynamic Model*. It will be shown in detail that Sutherland's findings and descriptions are based on Still's principles of osteopathy which is also the reason why this thesis deals with Still's principles. Sutherland consistently relied on Still's principles of osteopathy in theory as well as in practice. All of these details were necessary to create a quantitative questionnaire. Bemerburg (2006, p.4) recommended to suggest well formulated and well reviewed answers with clear YES and NO options in order to receive valid results in quantitative social research. In addition it is necessary to know these facts to evaluate and compare the quality of optional answers with free text areas (co.chap. 6).

5.1.1 Sutherland and AT Still

Picture 3: Still & Sutherland (Fotos: Jolandos)



The American osteopath William Garner Sutherland (1873-1954) started his elementary osteopathic education in 1898 in Kirkesville and graduated from there in 1900. He was a student of A.T. Still (1828-1917). He discovered his cranial concept which was based on A.T. Still's philosophy and principles of osteopathy before graduating (Sutherland 1990, p.3).¹¹ Reviewing A.T. Still's writings with a specific focus on osteopathic techniques and the effects of osteopathic treatment you will find out soon that there are very few descriptions. A.T. Still did not teach technique, but he taught principles which were based on fundamental knowledge of the human anatomy and physiology, his deep understanding of God and nature and the basic principles of osteopathy.

The Basic Principles of Osteopathy:

(Becker R. 1997, p.116; Magoun Hl.Jr. 2006, p.4; Stark 2006, p.181, 2007, p.177)¹²

1. The body is a unit.
2. The body is a self regulatory mechanism.
3. The body has the inherent capacity to heal itself.
4. Structure and function are reciprocally interrelated.^{|| 13}

Still used pictures and metaphors to illustrate his teachings: (i.e.) *the squirrel's tail, the horn of a ram* (Still AT 2005, p.105; Sutherland WG 2004, p.560). One of Still's most popular parables is the story about a goat and a rock with which he wanted to visualize the functional situation between the Crurae diaphragmaticae and the Aorta abdominalis (Sutherland WG 2004, p.256). Sutherland acted similar, he taught the factors of the Primary Respiratory Mechanism (PRM) or models and thereby he wanted to initiate the individual thinking process of every student. Sutherland presented different styles of illustration in his books. He used pictures like: *the waves of the ocean, The Breath of Life, fluidic light, a coaxial cable and the eye of a hurricane* (Sutherland 2004, p.38, 30, 54, 53, 39). In order to explain the pictures better he invented additional terms by which he illustrated his teachings (i.e.: *transmutation, potency of the tide*). Sutherland also used another stylistic device with which he directed the audience's attention to reading between the lines. For example, he arranged two texts in a way that line one of the first text was followed by line one of the second text, and these two lines were followed by line two of text one and line two of text two, and so forth: (Sutherland 1998, p.260)

In connection with the head-of-the-rib-activity,
Reading between the lines, one may
 the ribs circumduct much in the manner corresponding
view the thoracic cage functioning in
 to circumduction of a horseshoe in a game of quoits.
a spiral movement like the main-spring
 During the procedure in inhalation, the sternal ends,
of the balanced wheel of the enlarged
 though intramembranous or cartilaginous attachments,
watch observed at the New York Grand Central
 draw the sternum backwardly; and during exhalation,
Station in New York City
 the ribs circumduct the opposite direction, drawing the sternum forwardly.

^{||} The principles of Osteopathy were never noted by AT Still like viewable in this text. 1953 The Kirkesville Consensus Declaration of these principles was fixed (Ward 1997).

In some other cases he transferred some of AT Still's individual terms into his writings and teachings. As a practical example AT Still taught the mechanical principle of *exaggeration* of the lesion or strain to let the ligaments bring back the bones and tissues into functional relation. You start treatment with an exaggerational positioning of the lesion or strain (Sutherland, 1990, p.202; 2004, p.1-176).¹⁴ This principle was used by Still and still is one possibility of Sutherland's mechanical principles of osteopathy in the cranial field, too (Magoun HI Sr. 1997, p.65). Still did not teach separate techniques for the hands or for the pelvis, etc. he forced his students to think thoroughly and to use/apply the osteopathic principles (Still AT 1986, p.11-12; 2005, p.1-42)¹⁵. Sutherland, on the other hand, taught Still's principles and his own techniques to investigate and treat the whole body and the cranium. Sutherland himself pointed out that he had simply applied the osteopathic principles of AT Still (Sutherland WG 1990, p.3) when he discovered Cranial Osteopathy (CO) in the American School of Osteopathy (Kirksville/Missouri/USA 1900).¹⁶ Observing a skull, he concluded: „*The squama of the temporal bones looks so much like the gills of a fish.*“ (Sutherland WG 1994, p.11)¹⁷ His next thought was only logical to him. He had been struck that the individual design of the skull had to represent function, a breathing mechanism. Hence he concluded that this function had to be a respiratory mechanism (Sutherland 1990, p.3; 2004, p.1-18; Magoun HI.Sr. 1997, Preface).¹⁸ This was the beginning of the cranial concept within osteopathy based on a *Biomechanic Model* according to AT Still. Because of the close relationship between Still and Sutherland the individual osteopathic terms created by Still are further discussed in the following chapter (5.1).

Another similarity is that Sutherland like Still was a religious person. This can be proven by the fact that he talked about *The Breath of Life* very often and of course he had been asked if his concept was religious. He answered: „*If the recognition by Dr. AT Still of God as creator of the human body is religious then the science of osteopathy is religious then the cranial concept is religious.*“ (Sutherland 1967, p.101)¹⁹

Recalling Franklyn Sills and the title of his book „Craniosacral Biodynamics“ and the linguistic approach (co.chap. 7.2) there is no way around considering „sacral“ as a religious adjective such as the adjective „spiritual“ according to Still's *Spiritual Being* by context. Consequently it would be a remarkable coincidence that one important bone in cranial approaches is the Os sacrum. This could mean that the noun cranium represents the *Being of Mind*, the Os sacrum the *Spiritual Being* and the human body the *Material Body* and its inseparable connection to membranes-/ ligaments and body fluids. The dynamic character of this model was expressed grammatically in contexts (i.e): *The Potency of the Tide, transmutations in tissues* (co.chap. 7.2)

5.1.1.1 Still's *Man is Triune* as Part of Sutherland's Models

As we know from previous text Sutherland directly followed AT Still's principles of osteopathy and because of this he also agreed with the Christian religion. Still illustrated his principles with own terms (i.e: *Man is triune, biogen*) which were directly connected to the principles of osteopathy and to the Christian religion. Both, Sutherland's *Biomechanic Model* and his *Biodynamic Model* follow this philosophy but like Still Sutherland also used his own terminology (i.e: *the breath of life, potency of the tide*). Obviously, they make the same point which will be proven in the following theoretical chapters. But first a closer look at Still's concept of *Trinity* followed by a closer view at Still's *biogen* (co.chap. 5.1.1.2) might be helpful because Still and Sutherland connected the three parts of trinity and their characters with fascia tissue (ligaments, membranes, body fluids). Hence the connection of ligaments, membranes, body fluids and the invisible parts of man is essential to Sutherland's cranial concept and osteopathy in general. The principles and characters of Sutherland's *breath of life* will be compared with Still's *biogen* below.

Sutherland himself pointed out to be fundamentally connected to the osteopathic principles of the „Old Doctor“. „*Study the life principle and come closer to understanding what I mean by the „Breath of Life“.* Dr. Still did his very best to introduce us to this phenomenon, but we were not ready for it.“ (Sutherland 1990, p.7)²⁰ Dr. Still's three-part-differentiation *Material Body, Being of Mind* and *Spiritual Being* was intended to illustrate Sutherland's „*Breath of Life*“ (Poettner 2005).²¹ Still regarded man as a threefold unity: *Man is triune*. Within this concept both aspects – man as a unity and the unity having a threefold character are equally important. For the Christian doctrine the theory of trinity should have achieved an analogous concept (Poettner 2005, p.I-xv).²² The principals of Sutherland's models are directly connected to the principles of AT Still and osteopathy in general. Still himself connected fascia tissue by using the principles of osteopathy with realms being not necessarily located only in the body but connected with the body inseparable. "*The fascia is universal in man and equal in self to all other parts, and stands before the world today the greatest problem, the most pleasing thought. It carries to the mind of the philosopher the evidence, absolute, that it is the "material man," and the dwelling place his of spiritual being. It is the house of God, the dwelling place of the Infinite so far as man is concerned*" (Still 1899, p.161; 2005, p.II-73).^{23 24} „*Fascia turned out to be a potential matrix for life and death* (Still 2005, p.II-41).²⁵ This relates to Sutherland's *Breath of Life* because he emphasized that this does not automatically mean the breathing of air. „*I gained the knowledge that included the Tide and something within that I call the „Breath of Life“, not the breath of air.*“ (Sutherland 1990, p.5)²⁶ AT Still's writings give evidence for his belief that *fascia* were not only important in health and disease but also in „*man's triune nature*“ of „*material body*“, the „*spiritual being*“ and a „*being of mind*“, his so-called *Trinity* (Stark 2007, p.20).²⁷

As far as the patient per se was concerned both Still and Sutherland always approached the material body /- matter knowing that they would reach the other parts in doing so, too.

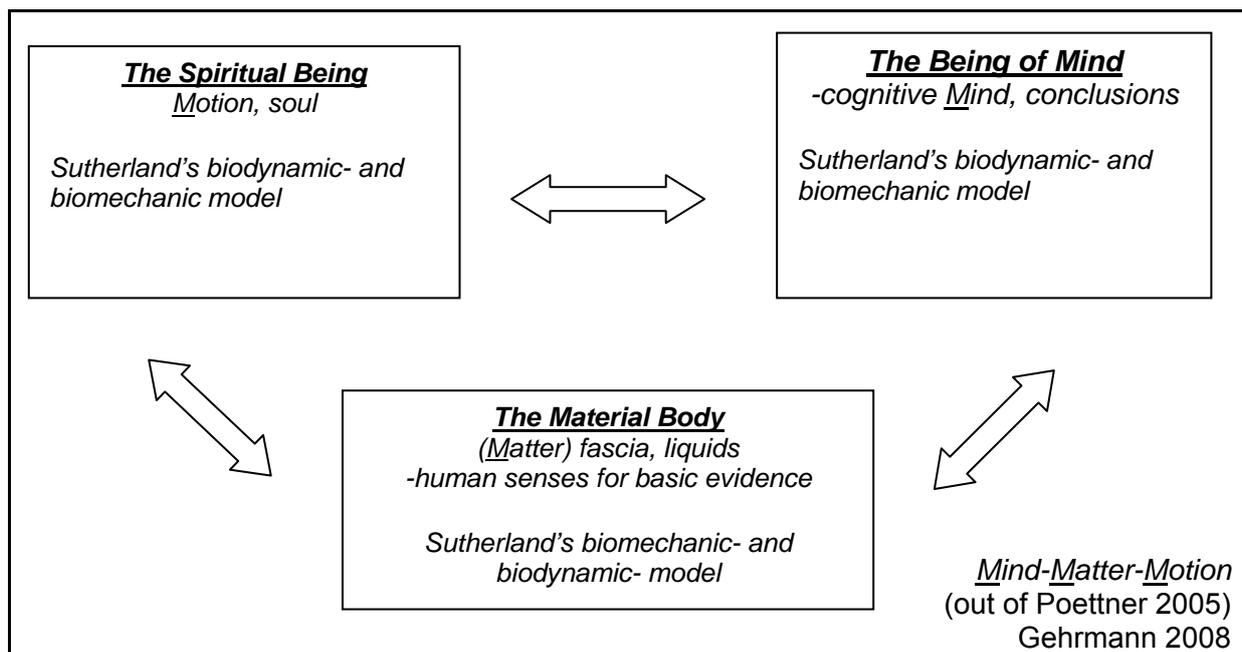
„We remember Dr. Still's dictum: „An osteopath reasons from his knowledge of anatomy. He compares the work of the abnormal body with that of the normal body.“.....His anatomical – physiological knowledge was the keynote of his diagnosis and his corrective adjustments. The cranium is an intricate mechanism and requires especial study of its complicated articular surfaces.“ (Sutherland 1998, p.167)²⁸

Sutherland did not primarily approach the *being of mind* or *spiritual being* in his writings.^{III} For example Sutherland talked about the Os sacrum in connection with postnatal depressions or psychosis. He acted on that bony tissue considering and convinced of an effect onto the *being of mind* and *spiritual being* (Sutherland 2004, p.1-111):²⁹ *„This is particularly the case in postpartum depression and psychosis. In fact, it is impossible for a physician and osteopath to find the correct problem for his patients without considering and analysing all the joints of the human body.“ (Sutherland 1990, p.121)³⁰* Referring to *The Breath of Life* (BOL) we now have to consider the use of *The Potency of the Tide* expressing the characters of the BOL, like a term does. *„Within that cerebrospinal fluid there is an invisible element that I refer to as the „Breath of Life“. I want you to visualize this Breath of Life as a fluid within this fluid, something that does not mix, something that has potency as the thing that makes it move.“ (Sutherland 1990, p.14)³¹* Later in his career Sutherland integrated *The Potency of the Tide* into his factors of the PRM (Trottier 2001, p.12). There is no indication in his writings which explains Sutherland's motivation whatsoever. He might have wanted to create an obvious connection to Still's Trinity and its inseparability.

Sutherland often used mental pictures and emphasized Still's *material body* to be worked on: *„We have now come to a further study of cerebrospinal fluid in the cranium and in relation to the whole body. There are several mental pictures we can use. For me, the Breath of Life, not the breath of air, is the main one. The breath of air is merely one of the material elements that the soul of living man utilizes in his walk about on earth.“ (Sutherland 1990, p.31)³²*

^{III} This is in contrast to results from the empirical part of this thesis (co.chap. 6.3.16.4.).

Picture 4: Sutherland's Models transferred to Still's Concept of *Trinity*



Without any instructions how to read and interpretate the texts it could be assumed that Sutherland might have wanted to indicate the connection and the patient as an object of first approach, Still's *material body-/ matter*. Another reason could have been to implicitly avoid the other parts of Still's Trinity – *The Being of Mind* and *the Spiritual Being / Soul*. *The Being of Mind* and *Soul* are subject to discussion by psychologists, psychiatrists, therapists and clerical professions etc.. In this context it must be recognized, that these professions only approach the *material body* in the second place. Later this will be seen as a borderline to leave osteopathy (co.chap. 6.3, 7). This barrier exists in osteopaths' minds which is necessary to treat patients authentically. Seeing or feeling a manual approach does not automatically support a primary mental approach to the *material body-/matter* of the practitioner. There could be similarities to Reich's and Boyesen's psychology whose primary approach was to *the Being of Mind* (co.chap.5.2). The patients cannot differentiate themselves.

5.1.1.2 Still's *Biogen* as Part of Sutherland's Models

When we speak about Still's *Trinity* within both of Sutherland's two models it is inevitable to talk about Still's *biogen*, too (co.chap. 5.1.1.1). The focus of this chapter is a comparison between Still's *biogen* and Sutherland's *potency of the tide* which is the essential part of Sutherland's *biodynamic model*.

Still, most of the time, used the term *biogen* like an adjective, in order to show characters of functions. Sutherland used the terms *Transmutation* and *The Potency of the Tide* to illustrate

the character of the *Breath of Life* (co.chap. App.). *Biogen* is one of the most discussed terms of AT Still. Webster's dictionary describes the term as follows (Webster 1890):

- Arising from living beings;
- Arising throughout work of living beings, arising throughout extincted beings;
- Depending on organic substances and organisms.

(Poettner 2005, p.I-31)³³

Taking all these aspects into consideration it seems possible to use *biogen* as an adjective to describe a principle of function within organic substances and organisms for which Sutherland used the term *Transmutation(s)*. „Thus blood, albumen, gall, acids, alkalies, oils, brain fluid and other substances formed by associations while in physiological processes of formation must be on time in place and measured abundantly, that the biogenic laws of nature can have full power with.“ (Still 2005, p.149)³⁴ Sutherland called their inter/-changings *transmutations* and thereby he described the effects of *The Breath of Life*. AT Still only used one individual term to show the possibilities of Sutherland's *Transmutation* and *The Potency of the Tide* which was „*biogen*“ (Still AT 2005, p.150). When Sutherland used the term *transmutation* he wanted to describe a change into another shape, substance, form or condition (Sutherland 1998, p.291).³⁵ Sutherland used the term *transmutation* when he tried to enclose a situation of changing the aggregate states in the physiology of bodies'. The importance of all fluidic dynamics and their interchange in general within the body is described by AT Still and WG Sutherland. Still included the dynamics of the body fluids and the important role of LCS before WG Sutherland's had provided his „*Biodynamic Model*“ (Poettner 2005, p.40; 2007, p.285).³⁶ Up to today, the *Biodynamic Model* is highly hypothetical within Cranial Osteopathy (CO). There are no valid methods to measure and/or to reproduce phenomenons like Tides(s) or the Cranial Rhythmic Impulse (CRI); nothing could be found to explain the term „*Potency of the Tide*“ (Sommerfeld 2006, p.VI).³⁷ If you compare *The Potency of the Tide* with Still's *biogen* it seems to mean the same. *Biogen* contains a directive element carried out by a higher intelligence/-being throughout *The Breath of Life* and its character which is *The Potency of the Tide*. This seemed to be comparable to Sutherland's *Biodynamic Model*. „*The Potency*“ within Sutherland's factors of the PRM can be used like *biogen* because of its similar meaning. Thus, Sutherland's roots of his *Biodynamic Model* are semantically and by context part of Still's first osteopathic principles (co.chap. 7.2).

5.1.2 The *Biomechanic Model* as Part of WG Sutherland's Osteopathic Concept

Theoretically, the previous chapters described Sutherland's and Still's philosophical connections, similarities and their use of their own terms. To increase the information on Sutherland's background and specifically on his *biodynamic model* it is important to focus on Sutherland's and Still's ways to approach the patient will be shown later in this thesis. This was necessary to make sure that only Sutherland's late addition of *the potency of the tide* to his factors of the PRM makes the difference between these both models. Exactly this difference is inevitable to be worked on and to be presented well prepared in the questionnaire. Because in this thesis a suggested and differentiated view on Sutherland's *biodynamic model* was investigated among osteopaths and evaluated quantitatively (Bemerburg 2006, p4).

Sutherland's *Biomechanic Model* consists of The Ligamentous Articular Strain (LAS), the Membranous Articular Strain (MAS), the Reciprocal Tension Membrane (RTM), the Self Shifting Fulcrum (SSF) and the Point of Balanced Membranous Tension (PBMT).

Sutherland was a hardworking student trying to look beyond the obvious, always trying to think like and reason with Dr. Still (Trottier 2001, p.8).³⁸ When Sutherland discovered cranial osteopathy in 1900 he pointed out that he had only applied the osteopathic principles of AT Still (Sutherland 1990, p.3).³⁹ His *Biomechanic Model* was developed and provided between 1900 and 1947 (Trottier 2001, p.10).⁴⁰ Between 1937 and 1939 Sutherland provided „the core link“ between the cranial and pelvic bowl. From 1948 on he only taught his osteopathy and still worked on the *Biodynamic Model*. (Trottier 2001, p.12).⁴¹ Starting out from a biomechanic point he had a hard time, because the hypothesis of a sutural mobility of the skull did not only attract consilient and friendly feedback inside and outside the osteopathic profession. The principles used by Sutherland and explicitly marked as Still's are listed below (Magoun HI Sen.1997, p.65-67):⁴²

1. Structure governs function
2. Nerves may be influenced in a great many ways
3. Cerebrospinal fluid
4. Venous circulation
5. Membranes and articulations present osteopathic pathology
6. Organs and their functions may be disturbed
7. The relation of cranial lesions to gross structural patterns

More details about the osteopathic way how to support the self healing mechanism of the body in a biomechanical way was conducted in the following three subchapters (5.1.2.1 to 3). To differentiate whether an osteopathic approach is biomechanical or biodynamical and if it

refers to Sutherland's and Still's principles corresponds with the main goal of this study (co.chap. 2). In addition Bemerburg (2006, p.4) emphasized that details and differences are important to be figured out well in a quantitative social research questionnaire to get valid results.

5.1.2.1 The Ligamentous Articular Strain (LAS) and Membranous Articular Strain (MAS) as Part of Sutherland's *Biomechanic Model*

The LAS and MAS are valid models which have their foundations in Still's principles of osteopathy as used by Sutherland. In his writings Sutherland described strain pattern of ligaments and membranes to show health and disease or the way how health is restored osteopathically. He used the power of ligaments and membranes (Fascia) to treat osteopathically. For example he practiced the principle of *Exaggeration* of the lesion like Still did, which represents a fascial connection within Still's *Trinity* starting work on the *material body* (Lippincott HA 2004, p.200-202; Sutherland 2004, p.109-110).^{43 44}

5.1.2.2 The Reciprocal Tension Membrane (RTM) and Self Shifting Fulcrum (SSF) as Part of Sutherland's *Biomechanic Model*

The mobility and interaction of cranial and spinal dura is in the center of Sutherland's concepts of The Reciprocal Tension Membrane (RTM) and Self Shifting Fulcrum (SSF). Fluidic dynamics of cerebrospinal fluid, blood and lymphatic vessels are included in this model, too. When approaching the body of the patient mechanically, tissues and fluids should be directed adequately and mechanically (Sutherland 2004, p.I-50).⁴⁵ The mechanical principles which Sutherland used in osteopathic treatment are (Magoun HI Sen. 1997, p.69-71):⁴⁶

- Exaggeration of the lesion
- Direct action on the lesion
- Disengagement of the lesion
- Opposite physiological motion to restriction of the lesion
- Molding of the lesion

5.1.2.3 The Point of Balanced Membranous Tension (PBMT) as Part of Sutherland's *Biomechanic Model*

The Point of Balanced Membranous Tension (PBMT) is important in both diagnosis and treatment. Sutherland saw the cranial membranes always in tension, which is essential and

also applies to the bones. The pull of falx cerebri and the two sickles of the tentorium are balanced, all articulations can move (co.chap. 5.1.2, RTM and SSF). Hence PBMT is the point in the range of motion of an articulation where the membranes are balanced between normal tension and modified tension. Normal tension is present throughout the free range of sutural activity; modified motions of membranes, ligaments or bones are initiated by osteopathic lesions (Magoun HI Sr. 1997, p.68).⁴⁷ Finding PBMT requires palpatory skills and concentration. If PBMT is found the osteopath poses until he has been carried through resistances in tissues using the mechanical principles of Sutherland. This is in accordance to AT Still when he corrected a rib or vertebral lesion (Magoun HI Sr. 1997, p.68).⁴⁸ Here we can see one reason to teach principles and not techniques: a human body offers myriads of constellations and it is impossible to learn specific techniques for all cases possible. A supplement to this approach using PBMT is a possible combination of the previous principles and a modified pulmonal breathing as well as an active support by conscious and directed movements of the patient's body (Sutherland 2004, p.1-244).⁴⁹

5.1.3 Sutherland's Principles of the *Biodynamic Model* as Part of Osteopathy.

Up to 1947 Sutherland worked on the osteopathical so-called *Biomechanic Model*. From then up to his death in 1954 he exclusively worked on the so-called *Biodynamic Model* (Trottier 2001, p.11).⁵⁰ In April 1948 Sutherland changed his teachings basically. For the first time he described *The Breath of Life* (something invisible in cerebrospinal fluid) (Trottier 2001, p.12).⁵¹ Sutherland used the terms *transmutation* and *The Potency of the Tide* frequently to describe the changes in several aggregate states by analogy with Still's *biogen* (co.chap. 5.1). There is no explanation why Sutherland used two terms and Still only one. Sutherland himself never used the term *Biodynamic* and it is not clear who started using the term in osteopathy. Nonetheless *Biodynamic* has religious and spiritual links to *The Breath of Life* out of Genesis (Trottier 2001, p.10). Finally it corresponds with Still's *Spiritual Being* and, by manual approach, osteopaths have tried to find it in patients' bodies. It cannot be verified either whether Sutherland was influenced by Rudolf Steiner and Carl Gustav Jung on the one hand, and by Wilhelm Reich and Gerda Boyesen (co.chap. 5.2) on the other. As a matter of fact today's online encyclopedias do not quote any osteopathic relation, neither in English nor in German (co.chap. 7.2). The main objective of *Biodynamic* is the motion and the interchange of *biogen* fluids with a *Potency* of God inside of them. This holds also true for the great Greek mathematician and philosopher *Thalet of Miletus*: "everything flows" (Hartmann 2007).⁵²

Sutherland's *Biomechanic Model* (Sutherland 2004, p.I-44) contains: the fluctuation of the cerebrospinal fluid, the function of the reciprocal tension membranes, the motility of the neural tube, the articular mobility of the cranial bones and the involuntary movement of the sacrum between the ilia. All of these factors are also part of his *Biodynamic Model*. The only difference between the *biomechanic* and the *biodynamic model* is that Sutherland added *The Potency of the Tide* which turned his model into becoming *biodynamic*. *The Potency of the Tide* appeared in his book *Teaching in the Science of Osteopathy* for the first time (Fort Worth, Texas 1990). He used pictures to describe *the Potency* of the cerebrospinal fluid, such as an electrical potential which is consistingly charging and discharging throughout its substance and sphere of influence (Magoun HI Sen. 1997, p.72).⁵³

Recalling the basics of Sutherland's models and the importance of their difference (of his five factors of the PRM) the only difference will be shown underlined below; Sutherland's late addition of *the potency of the tide*.

The Five Factors of the PRM (Sutherland 1990, p.X; 1998, p.297-298; 2004, p.I-vii):⁵⁴

1. *The fluctuation of the cerebrospinal fluid, or the Potency of the Tide*
2. *The function of the reciprocal tension membrane*⁵⁵
3. *The motility of the neural tube*
4. *The articular mobility of the cranial bones*⁵⁶
5. *The involuntary mobility of the sacrum between the ilia*

Sutherland quoted two other basic principles for his cranial concept in his book: *Contributions of Thought* (Fort Worth 1998). He noted two essential and further advices directly linked to practice and to the difference between both models: the Christian religion and its invisible parts of trinity (*the being of mind, the spiritual being*) and their inseparable relation to matter (fascia, ligaments, membranes and body fluids) and/or Still's *material body*:

- The fundamental principle in the cranial concept *The Breath of Life* not the breath of air. (Sutherland 1998, p.290)⁵⁷
- A fundamental principle in the cranial concept *fluctuation* of the cerebrospinal fluid. (Sutherland 1998, p.290)⁵⁸

Sutherland used the term *fluctuation* to show the material/matrix movement or action of cerebrospinal fluid inside the body. *Next I found that if I left that pad down there I would find something occuring up in the head that showed the connection between the sacrum and the normal fluktuation of the Tide* (Sutherland 1990, p.7).⁵⁹ The force behind this action should be *The Breath of Life* out of Genesis and its character should be *The Potency of the Tide*. This should be palpable and represent the so-called Cranial Rhythmic Impuls (CRI) of the body. A possibility to detect eight to 12 impulses / cycles per minute should occur. Therefore Sutherland quotes Webster and his definition of fluctuation: „*The movement of a fluid contained within a natural or artificial cavity observed by palpation or percussion*“ (Sutherland

1998, p.231).⁶⁰ Sutherland used the term *transmutation* to consider a change into another substance, form, condition or nature (Sutherland 1998, p.291).⁶¹ He also used the term *transmutation* when he tried to describe a situation of changing aggregate states in the physiology of bodies, for example: electrical impulses from the nervous system transmuting into the mechanical work of muscles (Sutherland 1998, p.291). Finally, Sutherland used the term *transmutation* like an adjective to demonstrate the effects of *the Potency* on tissues, independent of timeframes. There is one question which remains unanswered, namely if Sutherland considered the works of the non-osteopathic professionalists, who will be discussed in chapter five, because their philosophies are connected to Still's and Sutherland's principles. Those philosophers only started from different perspectives to get to *Fascia & Fluids* of the patient's body. Sutherland gave clear conditions to fascia: „*They are fluidic like bones and they are governed by an intelligence The Potency of the Tide within*“ (Sutherland 2004, p.512). This context shows that he used it in the same way like Still used *biogen* and is equally based on *The Breath of Life*. This proves an obvious relation to Still's *Trinity*. Recalling Still (co.chap. 5.1.1) and further developing his concept *Trinity* and *Fascia* we end up with the following quote by Sutherland: *The waters were divided when the earth appeared: From the earth man was created (Genesis 1:9 King James Version). The waters were divided! The fascia! Even the fascia is water, even the bony tissue is liquid, water/ fluid if you want to go back to historical record.... The cerebrospinal fluid. A motion like that of tide of the ocean. Something that is governed by the same intelligence that governs the rotation of the earth.* (Sutherland 1998, p.290)⁶² Writing this Sutherland was conscious of the *spiritual being, the being of mind* and the inseparability of *Trinity*. When he approached the patient's body, visualizing structure and function as taught by Still, he primarily approached the *material body* and was conscious of the other parts and their inseparability. This is close to the approaches of Reich and Boyesen who only showed a reverse perspective (co.chap. 5.1). All of them primarily focused on the aspects of *Trinity* which were special to each profession.

Another comparison of CRI measurement and the description of the PRM in today's osteopathic literature is taken from the Traube Hering Mayer Oscillation (THM), because THM demonstrates more than coincidental similarities (Nelson 2002, p.31). „*It is proposed that there is sufficient evidence to conclude that the Traube Hering Baroreflex oscillation is the Sutherland wave, or „Fast Tide“ of the CRI and the Mayer Thermal Reflex Oscillation is the „Slow Tide“ of the CRI as described by Rollin Becker. It follows therefore that the PRM can be logically explained in the context of the THM oscillation and associated physiology and biochemistry. Utilizing the THM to understand the PRM offers another holistic model.*“ (Nelson 2002, p.31).⁶³ Nelson's article tries to describe the character of the BOL empirically.

If that is so, the measurement gives a picture of CRI / PRM or equally of *biogen* and *The Potency of the Tide*.

5.1.4 The Differences between Sutherland's *Biomechanic* and *Biodynamic Model*

Cranial osteopathy started with a *Biomechanic Model* according to Still's principles (Sutherland 2004, p.211). Sutherland's *Biomechanic Model* consisting of the fluctuation of the cerebrospinal fluid, the function of the reciprocal tension membranes, the motility of the neural tube, the articular mobility of the cranial bones and the involuntary movement of the sacrum between the ilia are also part of his *Biodynamic Model* (co.chap. 5.1). The only difference is that Sutherland added *The Potency of the Tide*, changing his *Biomechanic Model* into the *Biodynamic Model*; this happened late in his career. It is certain that Sutherland never used the term *Biodynamic* and it is still not verified who started using today's term a „*Biodynamic Model*“. As a part of Sutherland's *Biomechanic Model* the correction of dysfunctions is conducted by ligaments and membranes. Concerning his *Biodynamic Model* the correction of dysfunctions is supposed to be committed by something invisible within body fluids (co.chap. 5.1). *The Potency of the Tide* should get its power from *The Breath of Life* out of Genesis with an *Intelligence* from within. A comparison of this picture to other philosophies which are close to osteopathy was presented by Lee (2000, p.33)⁶⁴ and shows analogies / accordances with Einstein, Still and Traditional Chinese Medicine (TCM).

Picture 5: Assembly of Einstein's, Still's and TCM Philosophies (Lee 2000, p.33)

EINSTEIN	<i>E</i>	=	<i>M</i>	<i>C</i>²
STILL	<i>Motion</i> <i>Life</i>		<i>Matter</i> <i>Terrestrial</i>	<i>Mind</i> <i>Celestial</i>
TCM	<i>Evolution</i> <i>Qi</i>		<i>Earth</i> <i>Yin</i>	<i>Heaven</i> <i>Yan</i>

The expression of *The Potency of the Tide* and of *The Breath of Life* should be palpable as a tide within a tide of the dynamics within body fluids. WG Sutherland called this a Primary Respiratory Mechanism (PRM) or Cranial Rhythmic Impulse (CRI), traditionally agreed upon a rate of ten to 14 cycles per minute (Nelson 2002, p.26).⁶⁵

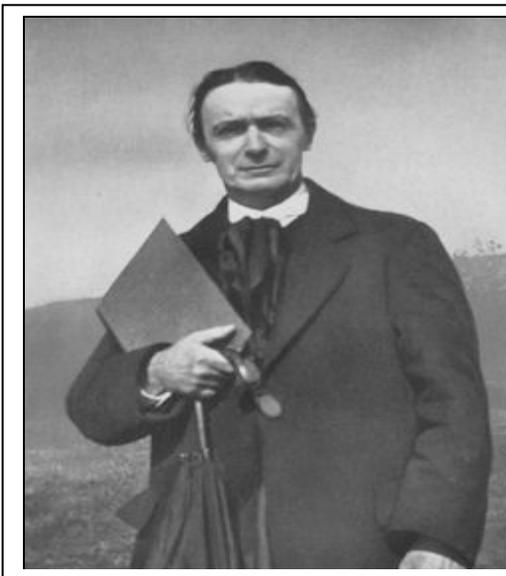
In addition, there are three other philosophies which are closely related to osteopathy. The philosophies of Rudolf Steiner, Carl Gustav Jung and Wilhelm Reich / Gerda Boyesen. Historical information, content and differences to osteopathy are contents of the next chapter.

5.2 Important Characters from outside Osteopathy who used the Term „*Biodynamic*“ and whose Concepts are close to Osteopathic Philosophy

In this chapter four persons are reviewed in detail because their philosophies have certain thoughts in common with osteopathy. These four persons used the term *Biodynamic* and talked about *Biodynamic Models*, too.

5.2.1 Rudolf Steiner

Picture 6: Rudolf Steiner (Foto: Wikipedia 2008)

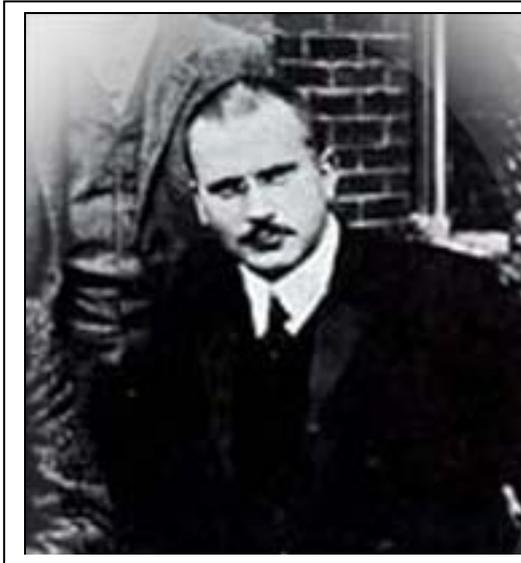


If you check the term „*Biodynamic*“ in English you will be led to Rudolf Steiner (1861-1925) and anthroposophy in *Biodynamic*® agriculture (www.anthroposophy.com)⁶⁶. *Biodynamic*® agriculture is a method of organic farming that views farms as whole and individual organisms emphasizing balancing the holistic development and interrelationship of the soil, plants and animals as a closed self-nourishing system. Steiner is perceived as having developed the first modern ecological farming system. *Biodynamic* farming includes the emphasis of organic agriculture on manures and composts as well as exclusion of the

use of artificial chemicals on soil and plants. Methods unique to the *biodynamic* approach include the use of fermented herbal and mineral preparations as compost additives and field sprays and the use of the astronomical calendar to determine times of planting and harvesting. *Biodynamic* agriculture is also a spiritual view on the world known as anthroposophy as propagated by its founder Rudolf Steiner (www.goetheanum.org).⁶⁷ Steiner's followers used the term "biologically dynamic" or "biodynamic" as a common expression. A central aspect of „*biodynamic*“ was the concept of understanding the farm as a whole and complete organism as a self-nourishing system. Potential diseases of these organisms are not treated or dealt with in isolation, but should be approached as symptoms for problems in the whole organism (www.rudolf-steiner.de).⁶⁸ His views are both, philosophically and symbolically comparable to the pictures, models and metaphors which Still and Sutherland used in their teachings.

5.2.2 Carl Gustav Jung

Picture 7: Carl-Gustav Jung (Foto: Wikipedia 2008)



Carl Gustav Jung and Rudolf Steiner have close links. Jung was born on July 26, 1875 in Kesswil, Switzerland and died on June 6, 1961 in Kuesnacht, Switzerland. He was a physician and psychologist as well as founder of the analytic psychology (www.cgjung.org).⁶⁹ He was convinced of the inseparability and interaction of psychological and biological factors. His psychological model was as such that it should increase the awareness to struggle and strive for the personality we really are. To do this, a dialogue between the self and the ego should be

established in the realm of unconsciousness. This process is started by individuation (Kirchschlager 2006, p.81).⁷⁰

Still and Sutherland were also convinced of the inseparability and the interaction of psychological and biological factors. They did not only express this by using the *Trinity* of man as a concept of osteopathy but they used them to show their relations and connections (co.chap. 5.1). This model was one main part in his teachings when Still talked about the principles of osteopathy and Sutherland himself pointed out to support these principles as they were taught by Still (co.chap. 5.1).

5.2.3 Wilhelm Reich & Gerda Boyesen

Picture 8: Wilhelm Reich & Gerda Boyesen



If you check „*Biodynamik*“ in German you will be led to *Wilhelm Reich* and his *vegetotherapy*. Wilhelm Reich was born on March 24, 1897 in Dobzau, Galizien and died on November 3, 1957 in Lewisburg, Pennsylvania, USA. He was a psychiatrist, psychiatric analyst, social scientist and he did research in sexuality; he also was of one of the first „Freudomarxists“ (www.wilhelm-reich-gesellschaft.de).⁷¹ Since 1934 he had founded and developed the vegetotherapy and important parts of psychotherapy of the body. In 1940 he discovered the *Orgon* and called his teachings „*orgonomy*“ (www.orgoninstitut.de).⁷² Furthermore *Biodynamik* is also known as a psychological method of the body. Its roots go back to Wilhelm Reich’s vegetotherapy, approaches by Carl Gustav Jung and physiotherapy as well as humanistic psychology. The so-called „*Biodynamik*“-Psychology was founded by Gerda Boyesen (www.biozen.de).⁷³ She was born in 1922 in Bergen, Norway and died on December 29, 2005 in London. During the 1960ies she developed the basics for a *biodynamik* psychology. Among others she still is a central figure in the field of psychological therapy. Professionally she had incorporated Sigmund Freud’s theory about the libido, CG Jung’s depths psychology, Reich’s vegetotherapy and physiotherapy. She represented a reconciliation of „*biodynamic*“ psychology and apparently contradictory paradigms of Freud’s teachings about the soul on the one hand and Reich’s body orientated analysis of characters on the other hand. She was one of the first to be convinced that understanding the soul without paying attention to its roots inside the body is not possible(www.pressearbeit-bockow.de 2008).⁷⁴ Against this background it is definitely legitimate to say that both Reich

and Boyesen started out with mind and soul in order to reach the body. Exactly the other way round osteopathy starts with the body via fascia and fluida in order to reach mind and soul. Still and Sutherland connected these components by fascia tissue (co.chap. 5.1). If Boyesen dealt with fascia in any respect cannot be proven but it appears to be logical.

5.3 Results from Literature

The only difference between Sutherland's two models is the term *the Potency* which Sutherland added late in his career to the factors of the Primary Respiratory Mechanism (PRM), thus turning a *Biomechanic Model* into a *Biodynamic Model*. Up to today it cannot be verified who inside the profession used the term *Biodynamic Model* for the first time. Within the *Biomechanic Model* corrections of osteopathic dysfunctions were explained by the work of ligaments and membranes, within the *Biodynamic Model* the correction should be done by something invisible based on and powered by *The Breath of Life* out of Genesis. Recalling Still's *Concept of Triune Man*, Sutherland's *Biomechanic Model* refers to *matter* (=the material body) and emphasizes fascia. His *Biodynamic Model* also refers to *matter* but generally focuses on its fluids and gives reference to *biogen power*, *the Potency* and *The Breath of Life* and their inseparability of the *Trinity*. Sutherland never lost contact to Still's principles because his primary osteopathic object had always been the physical body of the patient. From Sutherland's texts this can be easily shown; for example, he worked on an obvious primary psychological problem which by itself was part of *the being of mind and soul*. He treated a postnatal depression or psychosis and argued that it was impossible to get to the ground of the problem without a complete investigation of the entire body (Sutherland 2004, p.I-111).⁷⁵ In order to do this, during a presentation in Milwaukee, Sutherland showed a technique treating a strain of the Os sacrum which can be found with many patients in psychiatric hospitals in the US (Sutherland 2004, p.II-230).⁷⁶ This behavior proves that Sutherland stayed in the field of *the material body* despite of apparent problems in the field of mind and soul. He believed in and was conscious of the inseparability of all parts of Still's *Trinity*. His basic principles of both models are contained in the osteopathic principles of AT Still in theory and practice of osteopathy. Despite the fact that Sutherland never used the term *Biodynamic*, today the term is widely used inside the profession. To clarify Sutherland's implications a further investigation of semantics and linguistics might be useful (co.chap. App.). One reason to view *Biodynamic* as a symbol is underlined by the fact that also Polzin-Hausmann (2002, p.268-273) state that only context is helpful and useful. The link between the present Biodynamic Model within osteopathy and Steiner and Jung has already been described by Kirchsclager (2006, p.81).⁷⁷ The link to Reich and Boyesen obviously seems to be new and was found out by looking at the use of the term *Biodynamik* in German. Only

from the context it can be decided which type is present. Because of the importance of contexts and while analyzing Still's and Sutherland's styles high attention should be paid to stylistic devices such as comparisons, metaphors, symbols and pictures. Sutherland used Still's principles; his term the *Potency of the Tide* obviously describes characteristics which are part of Still's *Trinity* (co.chap. 5.1). For example, symbols and context are also consciously used and important in texts of physicists: The latter show similar creativity when they started using the terms *color* and *flavor* to illustrate the characters and attitudes of reactions in quantum chromodynamics (Mania 2003, p.136).⁷⁸

A borderline to step out of osteopathy can be located in the head -/ awareness -/ consciousness of the osteopathic practitioner by looking at which part of trinity he primarily approaches. As long as you visualize and act on the *material body* you are still in tune with Still's osteopathy. If you primarily try to act on things outside the *material body* you step out of osteopathy into fields of different professions (i.e.: psychologists, psychiatrists and priests).

6 PRACTICAL PART

This chapter will show in detail how the questionnaire was constructed and evaluated.

6.1 Presetting and Limits of the Questionnaire

The original questionnaire was written and sent out in German (on February 28, 2008) because of the limitation to certain zip code areas (two,three,seven) within Germany and to the members of a German osteopathic association (VOD e.V.), listed with email addresses; the call was repeated nine days later, on March 9, 2008.

6.1.1 Technical Area / Digital Programm Features

Only the space for numbers and dates were fixed in the form. Due to hidden digital programming all personal information and each single question had to be answered, before the questionnaire could be sent back. In case of questionnaire returns each participant received an automatic answering email including his answers; only one participant did not receive a feedback; there might have been a system error or the automatic email might have been filtered by a spam program and as a consequence deleted from the system. The digital presettings for the questionnaire were installed by Frank Barthold. The author received the answers for the questionnaire via programmed email responder from the server. The questionnaire was put on the server of www.praxisamguerzenich.de where the answers were

collected and automatically saved in a non public area. These features were also installed, modified and administered by Frank Barthold.

6.1.2 Design

The design of the questionnaire concurs with the current quantitative social research literature referring to YES-NO questions or additional free text areas (Bernerburg 2006, p.3).⁷⁹ This empirical part of the thesis encloses both a German and an English version which are presented alternating.

6.1.3 Preparation

Before generating the questionnaire the objects of interest were sorted in five big blocks.

In General the Questionnaire Consists of Five Big Blocks:

1. **Common personal information:** zip code area, age, sex, school of osteopathic basic education, degree, professions, years of osteopathic experience, duration of time (comp.: **common personal information and drop down menu at the end of form**).
2. **Basics by Sutherland and Still:** repetition of the basic principles and factors and a survey of the individual knowledge (comp.: **questions one to three and eight to 11**).
3. **Postgraduate behavior:** evaluation of postgraduate behavior referring to osteopathic subjects (comp.: **questions four to seven**).
4. **Analysis of practical approach:** evaluation of the individual theoretical considerations (comp.: **questions 12 to 15**).
*Question 15 also offers an additional free text field.
5. **Criticism and suggestions:** free text area at the end of the questionnaire.

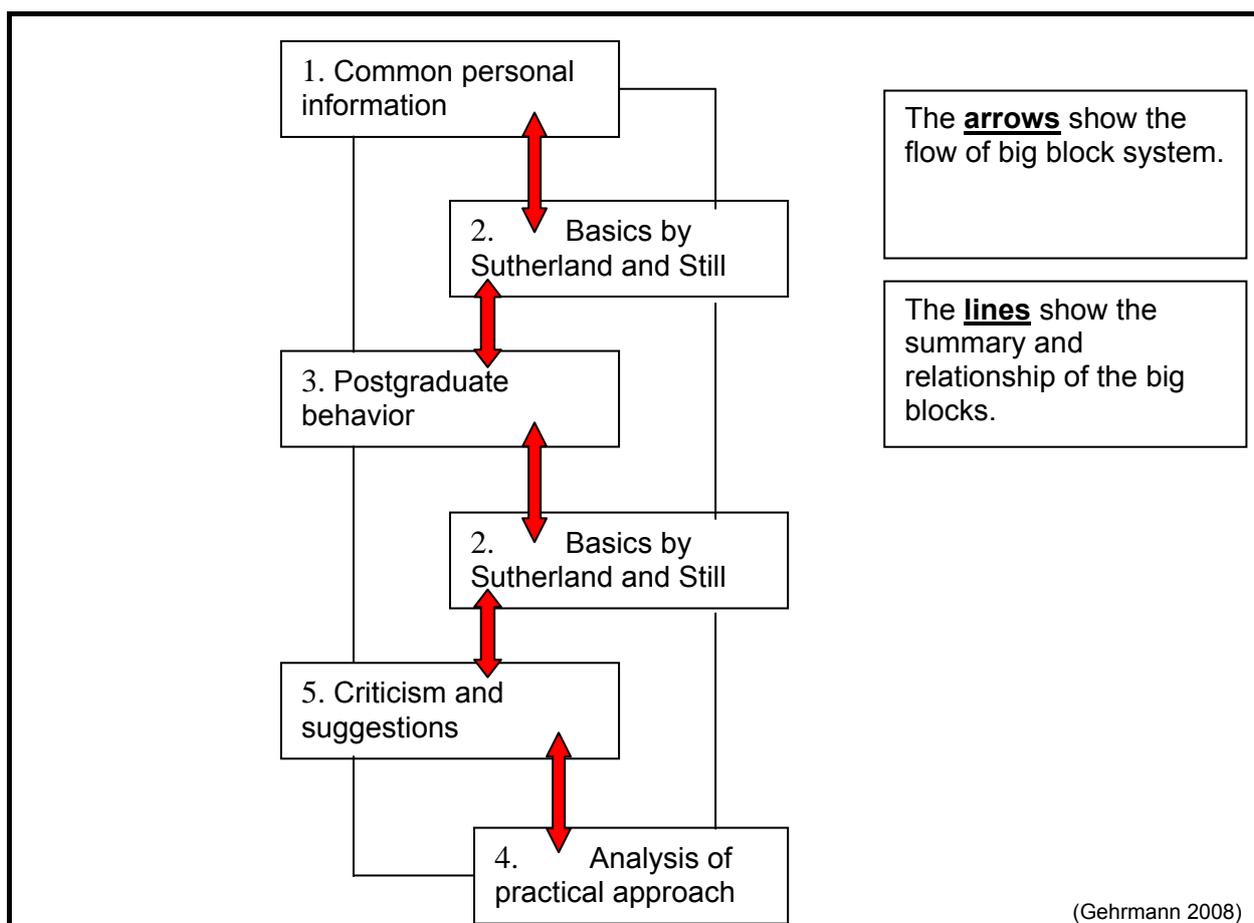
6.1.4 Overlapping and Splitting of the Five Big Blocks

Additional Information about the Collection of Data in a Big Block System:^{IV}

The placement of the big blocks was achieved by repeatedly overlapping questions comparable to a zipper; each participant was gently forced to think thoroughly and stay alert. This method is well known from drivers' license tests (Gehrmann 1986) or final exams at universities. All questions are sorted in blocks relating to different fields of knowledge. The 'zipper principle' was specifically used in question three; by arrangement of the answers a logical limitation was achieved right from the beginning. This method is also well known, for example, for multiple choice questionnaires, like the theoretical part of the German exam for Heilpraktiker at a local public health bureau (Gehrmann 2000).⁸⁰ To show the flow of the questionnaire and to continue the overlapping repetition, big block two (Basics by Sutherland and Still) was divided by block three (Postgraduate Behavior).

6.1.4.1 Visualization of the Big Block System behind the Questionnaire:

Picture 9: Big Block System



^{IV} Comment by author: The term *big block system* was created by the author to show the system, construction and flow of this questionnaire more easily.

6.2 The Questionnaire: Construction and Final Version

The construction of the questionnaire started in December 2007 and was finished in January 2008. During this period of time a regular consultation of the responsible scientists from WSO, mostly by email or personal oral interview as usual took place (H. Clementi, K. Musil, P. Sommerfeld – *in alphabetical order*). The following points should will show in detail „why“ and „how“ the questions were chosen and formulated as they are.

6.2.1 The Introduction Letter: Common Studying Information, the Confirmation to be Part of Study and the Form to fill in Personal Information.

This part is object of big block number one (1. Common personal information)

Praktischer Teil: Masterthesis von Wulf Gehrman an der Wiener Schule für Osteopathie (WSO) und der Donau-Universität-Krems (DUK)/AUT, begonnen Dezember 2007.

Empirical Part: Master's thesis by Wulf Gehrman put down at Vienna School of Osteopathy (WSO) and Danube University Krems (DUK) / Austria, started in December 2007.

Quantitative Sozialforschung im Bereich osteopathische Grundlagen:

Gibt es eine einheitliche Meinung über das biodynamische Model innerhalb der kranialen Osteopathie?

Quantitative social research in osteopathic basics:

Is there a unanimous opinion on the *Biodynamic Model* as a part of cranial osteopathy?

Köln, Februar 2008

Cologne, february 2008

Liebe Kolleginnen und Kollegen,

Dear Colleagues,

Im Rahmen des Masterstudienganges Osteopathie fertige ich derzeit meine Masterthese an und möchte Sie um Ihre Mithilfe bzw. Meinung bitten!

As part of the mastercourse in osteopathy I am currently working on my master thesis and would like to ask for your support and your opinion.

Gegenstand meiner Untersuchung ist die Frage, ob es eine einheitliche Meinung über das „biodynamische Model“ in der kranialen Osteopathie gibt.

Object of my study is the question whether there is a unanimous opinion on the „Biodynamic Model“ as a part of cranial osteopathy?

Es handelt sich bei dem Interview um 15 Fragen, die in einem Vorlauf mit vier Kollegen in durchschnittlich 10 Minuten komplett bearbeitet wurden, inkl. der Informationen, die eingetippt werden müssen!

The interview consists of 15 questions, which were tested by four colleagues. It took an average of ten minutes to fill in all information including free text areas.

Es soll quantitativ festgestellt werden, ob:

- *...es eine einheitliche Meinung über das „biodynamische Modell“ in der kranialen Osteopathie gibt?*
- *...es eine Häufung nach osteopathischer Schule, Nord Süd Gefälle in den PLZ Bereichen zwei, drei und sieben in Deutschland, Alter und/oder Geschlecht gibt?*

It should be evaluated quantitatively whether...:

- ...there is a unanimous opinion on the „Biodynamic Model“ as a part of cranial osteopathy?
- ...there is a clustering to osteopathic schools, the North South gradient, the zip code areas two, three and seven in Germany and age and/or sex?

Es ist unerheblich wie tief Sie sich in der Materie fühlen, es wird nicht Ihr individuelles Wissen in Kraniosakraler Therapie geprüft, sondern wo und wie viele Osteopathen gleicher, bzw. welcher Meinung sie sind!

Das Formular ist auch für den Fall eines „total“ Unwissenden gerüstet. Dies dürfte allerdings bei keinem von Ihnen der Fall sein, da jeder, der dies liest auf der Osteopathenliste des Verbandes der Osteopathen Deutschland (VOD e.V) geführt wird.

It does not matter how deeply involved you are in the subject, or what your individual knowledge in craniosacral therapy is. I am trying to find out where and how many osteopaths have the same opinion or what are their opinions.

The form was also prepared for someone not knowing anything. This does not apply to any of you, because everybody receiving the questionnaire is on the listing of the association of osteopaths in Germany (VOD e.V).

BITTE BEARBEITEN SIE JEDE FRAGE, DA SONST EIN AUSSCHLUSS AUS DER STUDIE DIE FOLGE SEIN MÜSSTE. JE MEHR KOREKTE EINSENDUNGEN ICH ERHALTE, UM SO VALIDER WIRD DAS ERGEBNIS SEIN!

Please answer each question or you will be excluded from the study the more correctly filled in forms you will return the more valid the results will be.

Mit kollegialen Grüßen, / With collegial greetings,

Wulf Gehrman

Ihre Einverständniserklärung bitte:

Die Entscheidung an der Studie teilzunehmen habe ich freiwillig, selbständig und allein getroffen.

Meine Daten dürfen nur zur Anfertigung dieser Arbeit und eventueller Folgearbeiten, die in direktem Bezug stehen, in anonymisierter Form dargestellt werden.

Ich erhalte kein Honorar!

Ich erhalte eine digitale Kopie der Arbeit automatisch, nachdem sie verteidigt worden ist.

Please, your statement of agreement:

I have participated in this study voluntarily, independently and on my own.

I agree that my data are presented anonymously in this thesis or in follow up studies and/or in studies which are in direct line to it.

I will not receive any payment for my participation.

A digital copy of this thesis will be sent to me after the defense of this thesis.

-Bitte bestätigen, bzw. stimmen Sie zu, indem Sie auf eines der Kontrollkästchen „klicken“!

-Please agree by clicking into one field below!

- Ich stimme zu. I agree.**
- Ich stimme nicht zu! I do not agree.**

Interviewformular - Bedienungshinweise:

- Bitte tragen Sie zuerst Ihre allgemeinen Daten ein.
- Um eine Frage mit JA, Nein zu beantworten, bitte auf das zugehörige Kästchen klicken. Wenn Sie sich umentscheiden möchten, klicken Sie bitte ein zweites mal auf das Kästchen und der Haken verschwindet.
- Bitte begründen Sie Fragen kurz, warum Sie so denken, im Frei-Textbereich des Formulars – einfach hineinklicken, wenn vorgesehen!
- Die Textmenge ist bei den Frei-Text Feldern nicht limitiert!
- Bitte beantworten Sie die Fragen alleine und ohne sie vorher diskutiert zu haben, um möglichst reine Ergebnisse zu erhalten.
- Das Formular soll nur einmal und in einem Gang bearbeitet werden!
- Wenn Sie alle Fragen und persönlichen Daten eingetragen haben, klicken Sie auf **ABSENDEN** am Ende des Formulars!

Interviewformular – Instructions:

- Fill in your personal data first, please.
- To answer with YES or NO, please click into the corresponding field, if you want to change your decision click again into the field and the mark will disappear then mark your new choice with another click.
- Please, explain your answer in the optional free text area; simply click.
- There is no limitation to the number of items in the free text areas.
- Please, answer the questions on your own without having discussed them before.
- The form should only be answered once and in one sitting.

- After having answered all questions and personal data click on SEND at the end of the form.

***Bitte schauen Sie jetzt auf Ihre Uhr, am Ende des Fragebogens werden Sie gefragt, wie lange Sie für das Interview benötigt haben!*

***Please check your watch now; at the end of the questionnaire you will be asked how much time it took you to finish the interview!*

VIELEN DANK, DASS SIE SICH ZEIT NEHMEN UND MICH UNTERSTÜTZEN!

Thank you for your support and your time.

Table 1: Common Personal Information

ALLGEMEINE INFORMATIONEN ZUR PERSON COMMON PERSONAL INFORMATION	
Postleitzahl zip code	00000
Email	
Beruf(e) profession(s)	
Schule für Osteopathie School of Osteopathy	NAME / Name STADT / Town LAND / Country
Abschluss / Titel degree / title	
Alter age	00 in Jahren / in years
Berufserfahrung als Osteopath experience as an osteopath	00 in Jahren / in years
Geschlecht sex	<input type="checkbox"/> Ich bin eine Frau / I am female <input type="checkbox"/> Ich bin ein Mann / I am male
Aktuelles Datum today's date	TT.MM.JJJJ (dd.mm.yyyy)

6.2.2 Question One

This question is part of big block two (2. Basics by Sutherland and Still).

The goal of this questions is to refresh the participant's knowledge on Sutherland's basic mechanical principles as taught in elementary osteopathic education.

Table 2: Question One

1	<p>Do you know the mechanical principles of Cranio Sacral Osteopathy (CSO) by WG Sutherland? (Magoun HI.Sr. 1997// 1st ed.)</p> <p><i>Kennen Sie die mechanischen Prinzipien der Kranio Sakralen Osteopathie (CSO) von WG Sutherland (Magoun HI.Sr. 1997// 1st ed.)?^{81V}</i></p>	<p><input type="checkbox"/></p> <p>JA/Yes</p> <p><input type="checkbox"/></p> <p>NEIN/No</p>	<p>-English</p> <ul style="list-style-type: none"> • exaggeration • direct action • disengagement • opposite physiological motion • molding <p>-<u>Deutsch</u>:⁸²</p> <ul style="list-style-type: none"> • <i>Übertreibung</i> • <i>Direkte Aktion</i> • <i>Befreiung</i> • <i>Physiologisch entgegengesetzte Bewegung</i> • <i>Modellierung</i>
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6.2.3 Question Two

This question is part of big block two (2. Basics from Sutherland and Still).

This question refreshes the philosophical parts and theories (basic factors) of Cranial Osteopathy (CO), supplementing question one.

^V Comment by author: Primarily checked was the first edition of Magoun's *Osteopathy in the Cranial Field*, because this first edition was approved by WG Sutherland himself; the third German edition not.

Table 3: Question Two

2	<p>Do you know the five factors of the Primary Resperatory Mechanism (PRM) by WG Sutherland?</p> <p><i>Sind Ihnen die 5 Faktoren des Primär Respiratorischen Mechanismus (PRM) von WG Sutherland bekannt?</i>^{83 84 85 86}</p>	<p><input type="checkbox"/></p> <p>JA/Yes</p> <p><input type="checkbox"/></p> <p>NEIN/No</p>	<p><u>English:</u></p> <ol style="list-style-type: none"> 1. The fluctuation of the cerebrospinal fluid or The Potency of the Tide. 2. The function of the reciprocal tension membran. 3. The motility of the neural tube. 4. The articular mobility of the cranial bones. 5. The involuntary mobility of the sacrum between the ilia. <p><u>Deutsch:</u></p> <ol style="list-style-type: none"> 1. Die Fluktuation der zerebrospinalen Flüssigkeit, oder die Potency der Gezeiten. 2. Die Funktion der reziproken Spannungsmembran. 3. Die Motilität des Neuralrohres. 4. Die gelenkvermittelte Mobilität der Schädelknochen 5. Die unwillkürliche Mobilität des Sakrum zwischen den Hüftknochen.
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6.2.4 Question Three

This question is part of big block two (2. Basics from Sutherland and Still).

The aim of this question was trying to evaluate how familiar the participants were with WG Sutherland's writings. Because of the title of this thesis it is important to get an insight in the participant's current knowledge and opinions. In this question a logical barrier was installed. If a participant marked the offered possibility „Who is WG Sutherland?“ no additional answer could be accepted logically.

Table 4: Question Three

3	<p><i>Sind Sie mit den Büchern und Schriften von WG Sutherland vertraut?</i></p> <p>Are you familiar with the books and writings of WG Sutherland?</p> <p>(z.B./ for example:</p> <ul style="list-style-type: none"> • Cranial Bowl • Teachings in the science of Osteopathy • Contributions of Thought; Das große Sutherland-kompodium / The big Sutherland-Compendium) 	<p><i>Meine Kenntnisse sind: / My knowledge is:</i></p> <p style="text-align: right;">*(Mehrfachnennung möglich) *(More than one answer possible)</p> <p><input type="checkbox"/> <i>Wer ist WG Sutherland? / Who is WG Sutherland?</i></p> <p><input type="checkbox"/> <i>Ich kenne das, was im Unterricht von Dozenten angebracht wurde und betrachte das für mich als ausreichend.</i> I know some relevant issues from basic education and I think that these are sufficient.</p> <p><input type="checkbox"/> <i>Interessiert mich nicht weiter. / I am no longer interested in the topic.</i></p> <p><input type="checkbox"/> <i>Ich versuche regelmäßig mein Wissen in allen Bereichen der Osteopathie zu erweitern.</i> I try to increase my knowledge in all fields of osteopathy regularly.</p> <p><input type="checkbox"/> <i>Ich bin gut mit den Schriften vertraut.</i> I know his writings well.</p> <p><input type="checkbox"/> <i>Ich bin sehr gut mit den Schriften vertraut.</i> I know his writings very well.</p> <p><input type="checkbox"/> <i>Ich halte mich für einen Experten auf dem Gebiet.</i> I think I am an expert in this field.</p>
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6.2.5 Question Four

This question is part of big block three (3. Postgraduate behavior)

The goal of this question is to evaluate the participants' intensity of work in the cranial field. In addition to questions one to three here it was investigated how often cranial techniques were used by the participants. It is important to show the amount of cranial approaches by osteopaths in certain parts of Germany.

Table 5: Question Four

4	<p><i>Beinhaltet Ihre tägliche Arbeit mit Patienten Techniken der kranialen Osteopathie? *(egal welches Model, oder beide, es geht um das „ob“)</i></p> <p>Do you apply techniques from cranial osteopathy in your daily work with the patients?</p>	<p><input type="checkbox"/> <i>Nie / never</i></p> <p><input type="checkbox"/> <i>Selten / rarely</i></p> <p><input type="checkbox"/> <i>Häufig / often</i></p> <p><input type="checkbox"/> <i>Immer / always</i></p>
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6.2.6 Question Five

This question is part of big block three (3. Postgraduate behavior)

Since the theoretical background in elementary osteopathic education and the present style of practice were contents of the previous questions, in this question the participants' postgraduate behavior in the field of cranial osteopathy should be evaluated.

Table 6: Question Five

5	<p><i>Haben Sie nach Ihrer osteopathischen Grundausbildung Fortbildungen <u>speziell</u> im Bereich der kranialen Osteopathie besucht?</i></p> <p>Have you attended postgraduate courses that specialized in cranial osteopathy?</p>	<p><input type="checkbox"/> <i>Keine / Not one</i></p> <p><input type="checkbox"/> <i>Nur bezogen auf spezielle Krankheitsbilder im Rahmen einer anderen Fortbildung.</i> Only courses where CO was one subject among others.</p> <p><input type="checkbox"/> <i>Einige (weniger als 5) / some (less than 5)</i></p> <p><input type="checkbox"/> <i>Viele (mehr als 5) / many (more than 5)</i></p> <p><input type="checkbox"/> <i>Sehr viele (mehr als 10) / very many (more than 10)</i></p>
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6.2.7 Question Six

This question is part of big block three (3. Postgraduate behavior)

Continuing with the content of question five in this question it should be found out which osteopathic postgraduate courses were attended and whether courses in other fields are also in the focus of the interest.

Table 7: Question Six

6	<p><i>Haben Sie Kurse in anderen Bereichen besucht?</i></p> <p>Have you visited courses in other fields?</p>	<p><input type="checkbox"/> <i>HVLA und Thrust Verfahren (manuelle Impulsmanipulationen)</i> HVLA and thrust techniques (manual manipulation by impuls)</p> <p><input type="checkbox"/> <i>Faszientechniken / fascia techniques</i></p> <p><input type="checkbox"/> <i>Muscle Energy Techiken / muscle energy techniques (MET)</i></p> <p><input type="checkbox"/> <i>Viszerale Techniken / visceral techniques</i></p> <p><input type="checkbox"/> <i>Embryologie / embryology</i></p> <p><input type="checkbox"/> <i>Anatomie & Physiologie / anatomy & physiology</i></p> <p><input type="checkbox"/> <i>Psychologie & Psychiatrie / psychology & psychiatry</i></p> <p><input type="checkbox"/> <i>Andere / others</i></p>
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6.2.8 Question Seven

This question is part of big block three (3. Postgraduate behavior)

It was intended to examine the intensity of the individual postgraduate behavior of the participants.

Table 8: Question Seven

7	<p><i>Wie schätzen Sie Ihren gesamten Fortbildungsaufwand, verhältnismäßig für die letzten 5 Jahre, ein? *Es zählen nicht nur Ihre Kurse, sondern auch Ihr persönliches Studierverhalten Zuhause in Summe.</i></p> <p>How do you estimate your postgraduate behavior over the last five years in per cent?</p> <p>*Please, add up the attended courses and your personal studies at home.</p>	<p><i>Angaben bitte in <u>prozentualem</u> Verhältnis (1-100%)</i></p> <p>Please, give a per cent relation (1-100%)</p> <p><input type="text" value="00"/> % <i>Untersuchungstechniken / techniques of examination</i></p> <p><input type="text" value="00"/> % <i>Behandlungstechniken / techniques of treatment</i></p> <p><input type="text" value="00"/> % <i>Grundlagen der Wissenschaft (Anatomie etc.) / basics of science</i></p> <p><input type="text" value="00"/> % <i>Philosophie der Osteopathie / phylosophy of osteopathy</i></p> <p><input type="text" value="00"/> % <i>Existenzgründung / setting up a business</i></p> <p><input type="text" value="00"/> % <i>Physiotherapie / physiotherapy</i></p> <p><input type="text" value="00"/> % <i>Sonstige / others</i></p>
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6.2.9 Question Eight

This question is part of big block two (Basics from Sutherland and Still)

This question confronts the participants with WG Sutherland's two different models of cranial osteopathy. Using a closed question it was checked whether both models were known by the participants.

Table 9: Question Eight

8	<p><i>Wussten Sie, dass es in der kranialen Osteopathie ein biomechanisches und ein biodynamisches Model gibt?</i></p> <p>Did you know that in cranial osteopathy both a <i>Biomechanic</i> and a <i>Biodynamic Model</i> exist?</p>	<input type="checkbox"/> JA/Yes <input type="checkbox"/> NEIN/No
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6.2.10 Question Nine

This question is part of big block two (2. Basics from Sutherland and Still)

Only those who answered question eight with YES were able to choose YES as an answer in this question. Knowing both models did not automatically mean to know the difference between them, too. This way of asking in questions eight and nine guaranteed better results. Two closed questions which were connected contextually in a row opened the opportunity to install a logical barrier.

Table 10: Question Nine

9	<p><i>Ist Ihnen der Unterschied zwischen diesen beiden Modellen bekannt?</i></p> <p>Do you know the differences between the two models?</p>	<input type="checkbox"/> JA/Yes <input type="checkbox"/> NEIN/No
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6.2.11 Question 10

This closed question is part of big block two (2. Basics from Sutherland and Still).

The question investigated the participant's knowledge of Sutherland's *Biomechanic Model* in detail by confronting him/her with a suggestion how this model works.

Table 11: Question 10

10	<p><i>Innerhalb des</i> <i>biomechanischen</i> <i>Models</i> erfolgt die <i>Korrektur einer</i> <i>Dysfunktion durch</i> <i>ligamentäre-membranöse</i> <i>Aktivität?</i></p> <p>Within the <i>Biomechanic</i> <i>Model</i> the correction of a dysfunction is done by ligamentous or membranous activity?</p>	<input type="checkbox"/> JA/Yes <input type="checkbox"/> NEIN/No
----	---	---

6.2.12 Question 11

This question is part of big block two (2. Basics from Sutherland and Still)

Repeating the way of asking of question ten, i.e. again using two closed questions in a row (co.chap. 6.2.9. 6.2.10), it was tried to evaluate the participant's knowledge of how Sutherland's *Biodynamic Model* worked. Therefore a suggestion how this model should function was extracted from the literature and was combined with a YES-NO opportunity to answer.

Table 12: Question 11

11	<p><i>Innerhalb des biodynamischen Modells erfolgen die Korrekturen osteopathischer Dysfunktionen durch unsichtbare Bestandteile innerhalb von Körperflüssigkeiten?</i></p> <p>Within the Biodynamic Model the corrections of osteopathic dyfunctions are done by invisible parts of body fluids?</p>	<input type="checkbox"/> JA/Yes <input type="checkbox"/> NEIN/No
----	--	---

6.2.13 Question 12

This question is part of big block four (4. Analysis of practical approach)

This question was created to evaluate whether the participants were differentiating consciously between both models of Sutherland in their daily work.

Table 13: Question 12

12	<p><i>Unterscheiden Sie in Ihrer täglichen Praxis zwischen den beiden Modellen bewusst?</i></p> <p>Do you consciously differentiate between both models in your daily work?</p>	<input type="checkbox"/> JA/Yes <input type="checkbox"/> NEIN/No
----	---	---

6.2.14 Question 13

This question is part of big block four (4. Analysis of practical approach)

It was meant to find out whether the participants were able to differentiate between both models and whether they mix Sutherland's the *Biomechanic* and *Biodynamic Model* in their daily work consciously.

Table 14: Question 13

13	<i>Vermischen Sie die Modelle bewusst?</i> Do you consciously mix both models?	<input type="checkbox"/> JA/Yes <input type="checkbox"/> NEIN/No
----	---	---

6.2.15 Question 14

This question is part of big block four (4. Analysis of practical approach)

This question should recall the participants to reconsider the possibility that the two models were mixed by them unconsciously.

Table 15: Question 14

14	<i>Vermischen Sie die Modelle evt. <u>un</u>bewusst?</i> Do you maybe mix both models <u>un</u> consciously?	<input type="checkbox"/> JA/Yes <input type="checkbox"/> NEIN/No
----	---	---

6.2.16 Question 15

This semi closed question is part of big block four (4. Analysis of practical approach) and evaluated whether the participants knew other models than Sutherland's and what was new or different.

Table 16: Question 15

15	<i>Kennen Sie biodynamische Modelle innerhalb der Osteopathie, die anders sind, als das von WG Sutherland?</i> Do you know any Biodynamic Models which are different from WG Sutherland's?	<input type="checkbox"/> JA/Yes <input type="checkbox"/> NEIN/No	<div style="border: 1px solid blue; padding: 10px; margin-top: 20px;"> <p>Wenn JA, welche und worin unterscheiden sie sich voneinander? Was ist neu, oder anders?</p> <p>If Yes, what, why and how are the models different? What is new?</p> </div>
----	---	--	--

6.2.17 The Free Text Area at the End of the Form

This question is part of big block five (5. Criticism and suggestions)

Table 17: Free Text Area

Haben Sie Kritik, oder Anregungen?

Do you like to add any criticism or suggestions?

klick in

6.2.18 Evaluation of Time of Duration

This question is part of big block one (1. common personal informations)

Table 18: Time of Duration

Bitte wählen Sie aus dem Drop Down Menü aus, wie viel Zeit Sie benötigt haben das Formular zu bearbeiten!

Please, select from the drop down menue how long it took you to fill in the questionnaire.

Bitte überprüfen Sie noch einmal Ihre persönlichen Daten und die Antworten, klicken Sie dann auf auf das Feld unterhalb:

Please, check your personal data and answers again and then klick the button below:

Send

Vielen Dank, dass Sie mitgemacht haben! Thank you very much for participating.

6.3 Results from the Questionnaire

6.3.1 Survey and Evaluation

- **Survey:** On the one hand we have a list of sent out invitations, on the other hand the returns were collected to find drop outs.
- **Survey:** Female/male, average age in relation to North South gradient.
- **Survey:** Osteopathic institute of basic education, degrees & profession(s).
- **Evaluation:** Is there one unanimous opinion or are there different opinions?
- **Evaluation:** Are there unanimous opinions or differing ones within the institutes of elementary osteopathic education?
- **Evaluation:** Are there differences along the North-South gradient compared to certain parts Germany?
- **Evaluation:** Are there different opinions in the female/male sex and age groups?

6.3.1.1 The Necessity to Classify „Unanimous Opinion or Knowledge“

Whether an opinion is unanimous or not is a question of definition in the first place and has to be related to the entire group of participants and their answers. This was done by a decreasing classification (percentage) and by qualitative description:

- **Unanimous opinion or knowledge** (80-100%)
(high level = 90-100%; low level 80-90%)
- **Almost unanimous opinion or knowledge** (60-80%)
(high level = 70-80%; low level 60-70%)
- **Splitted decision** (40-60%)
(high level = 50-60%; low level 40-50%)
- **No unanimous opinion or knowledge** (0-40%)

6.3.1.2 The Necessity to Rank Semi Closed Questions without YES/NO Answers

In semi closed questions without a YES/NO answer a ranking system was used. The ranking was calculated in per cent, as a total and for females/males. In both cases a text was added. The frame of ranking was defined by additional opportunities for answers. For example, in question six there are eight opportunities to choose from, so that a ranking from one to eight

was used. The highest ranking (=1) received the highest value in per cent, the lowest ranking (=8) received the smallest value in per cent. The value of ranking was added in a separate column next to the per cent column. The results were sorted by decreasing ranking.^{VI}

Table 19: Example for Ranking

Final ranking (1-8) of postgraduate behavior:

HVLA and thrust techniques (manual manipulation by impuls)	N=13 (21,66%)	6
Fascia techniques	N=30 (50%)	2
Muscle Energy Techniques (MET)	N=12 (20%)	7

^{VI} The idea to choose a ranking system came from an acquainted investment banker. He used this system to find „the banker of the month/year“; criteria were cumulative financial transfers in a certain time frame and in different markets at the same time. This constellation seemed to be comparable and useful to this study.

6.3.2 Statistics

6.3.2.1 Survey of Participation

FINAL DATA COLLECTION OF PARTICIPATION: SUMMARY

Total sent N(g)=274

- Zip code two (PLZ 2) Germany, N(g2)=72, DO=4, N(t2)=7
- Zip code three (PLZ 3) Germany, N(g3)=83, DO=5, N(t3)=20
- Zip code seven (PLZ 7) Germany, N(g7)=119, DO=2, N(t7)=33

Common participation =71 ≈ Backflow 25,90%

- Drop outs (DO) in the zip code two (PLZ 2) of Germany = 4
- Drop outs (DO) in the zip code three (PLZ 3) of Germany = 5
- Drop outs (DO) in the zip code seven (PLZ 7) of Germany = 2

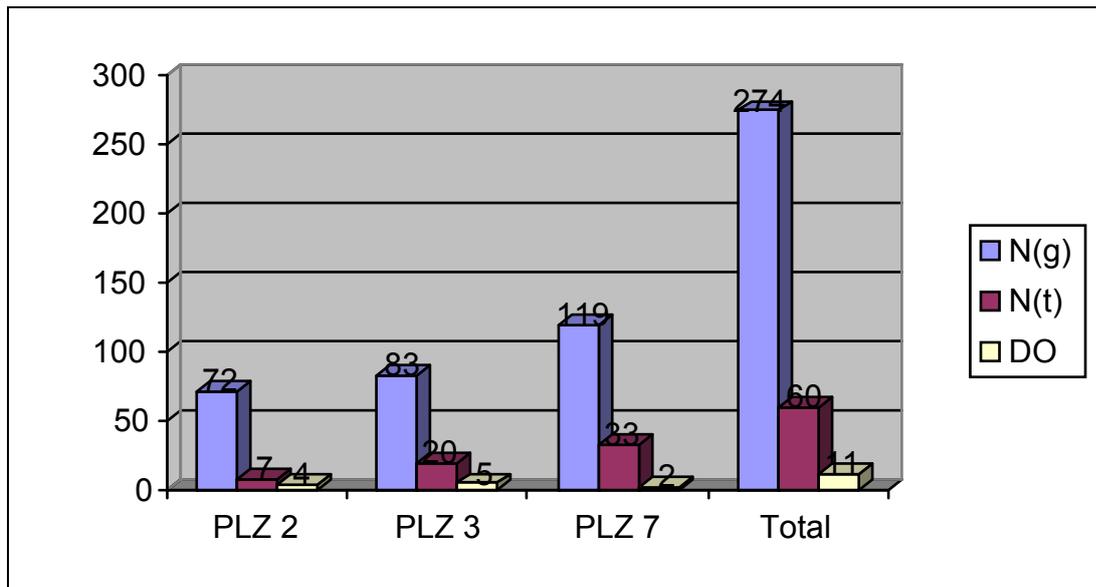
Drop outs (DO)=11 ≈ 4,01%

REASONS:

The drop outs were caused by wrong/old email addresses in the listing of the association of German osteopaths / VOD e.V (DO=8) and (DO=1) participant made a mistake by filling in the questionnaire. One participant sent his answer from an unknown email account; thus it was impossible to assign the consistent zip code. Finally (DO=1) did not agree to be part of this study as preset in the questionnaire.

Participation in the zip code two (PLZ 2) of Germany	≈ 9,72%
Participation in the zip code three (PLZ 3) of Germany	≈ 24,09%
<u>Participation in the zip code seven (PLZ 7) of Germany</u>	<u>≈ 27,73%</u>
Total participation	N(t)=60
	≈ 21,89%

Picture 10: Survey of Participation

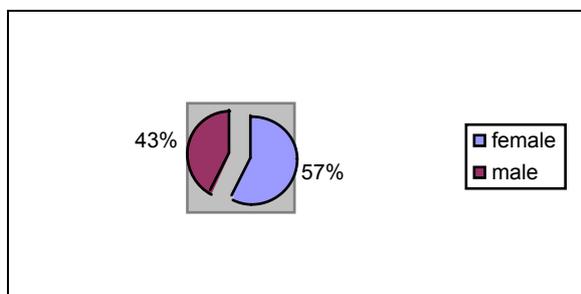


6.3.2.2 Survey of Common Personal Information

FINAL DATA COLLECTION: SUMMARY

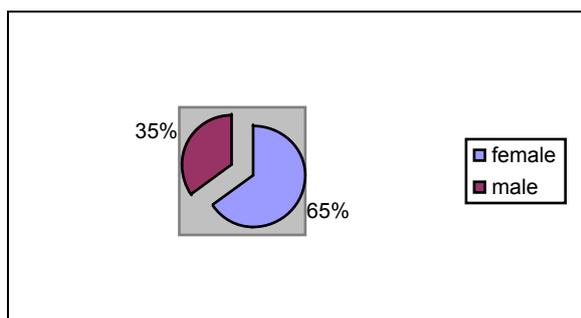
Participants Sex, Age & Years of Osteopathic Experience:

Picture 11: Participation of Zip Code Two in Germany (PLZ 2) by Sex



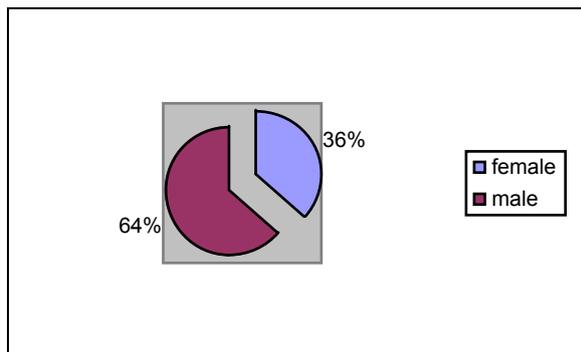
PLZ 2=
4 female, 3 male
≈ 57,14% female, 42,85% male

Picture 12: Participation of Zip Code Three in Germany (PLZ 3) by Sex



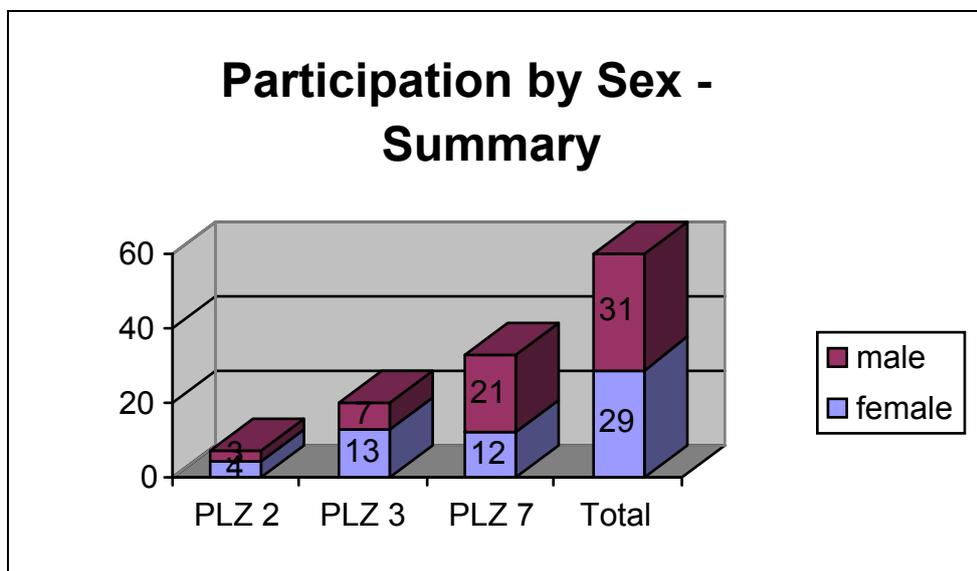
PLZ 3=
13 female, 7 male
≈ 65% female, 35% male

Picture 13: Participation of Zip Code Seven in Germany (PLZ 7) by Sex

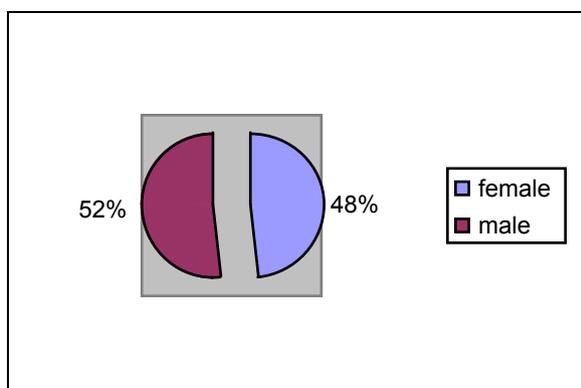


PLZ 7=
12 female, 21 male
≈ 36,36% female, 63,63% male

Picture 14: Survey of Participation by Sex

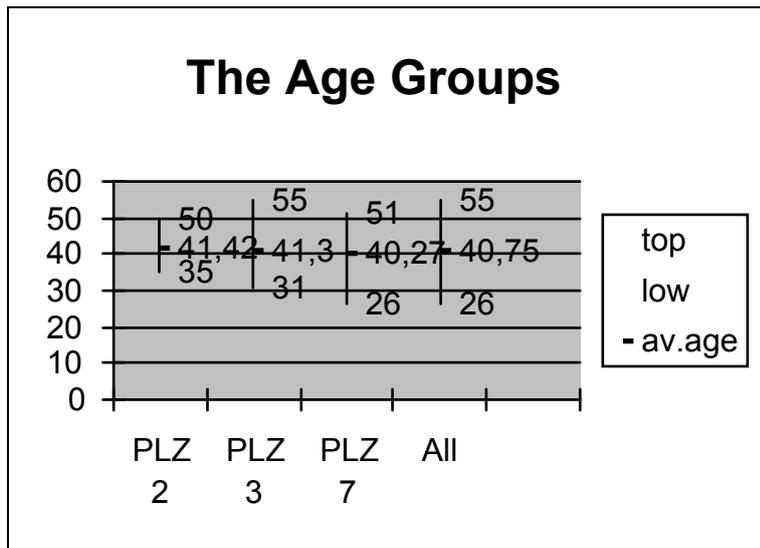


Picture 15: Participation by Sex Cumulated



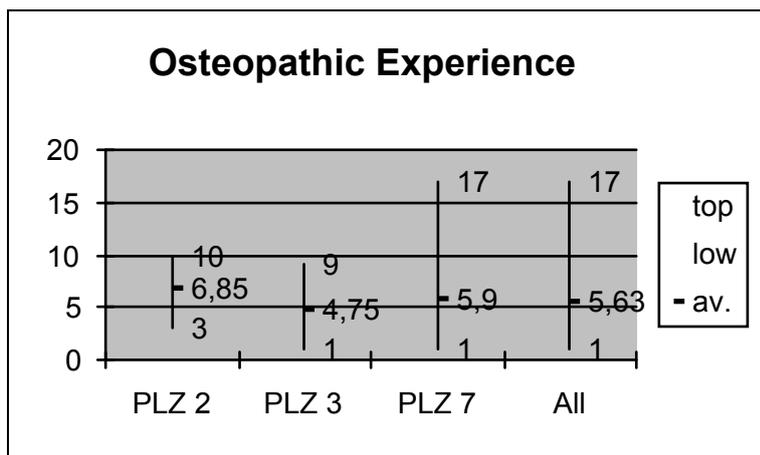
N(t)=60
≈ (29 female, 31 male)
≈ 48,33% female, 51,66% male

Picture 16: Participants' Age – Final Graph



Average age = 40,75 ys.
(top 55 ys. – low 26 ys.)

Picture 17: Years of Osteopathic Experience - Summary



Average years of osteopathic experience = 5,63 ys.
(top 17 ys. - low 1 y.)

6.3.2.3 Survey of Time of Duration, Osteopathic Schools, Degrees and Professions

FINAL DATA COLLECTION:

Time of Duration of Questionnaire:

The majority of the participants needed **0 to 15 minutes** to complete the questionnaire, only one participant needed **15 to 30 minutes**. Because of this an evaluation by sex or North South gradient was impossible (The one person who needed longer lived in zip code area three).

Osteopathic Schools (D, B, NL, AUT, GB):

28x College Sutherland

10x SKOM

5x IFAO

5x IAO

4x Still Academy

2x COE

1x OSD

1x ESO

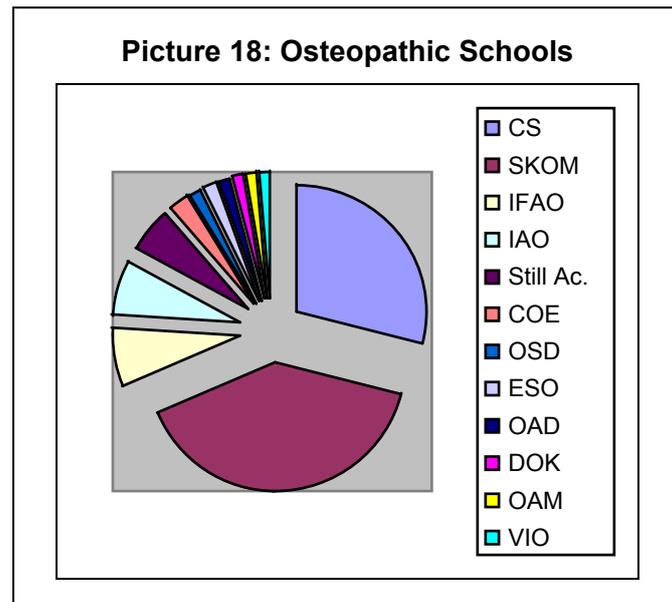
1x OAD

1x DOK

1x OAM

1x VIO

N(t)=60



Degrees and Exams:

1x MSc

1x BSc

4x DO

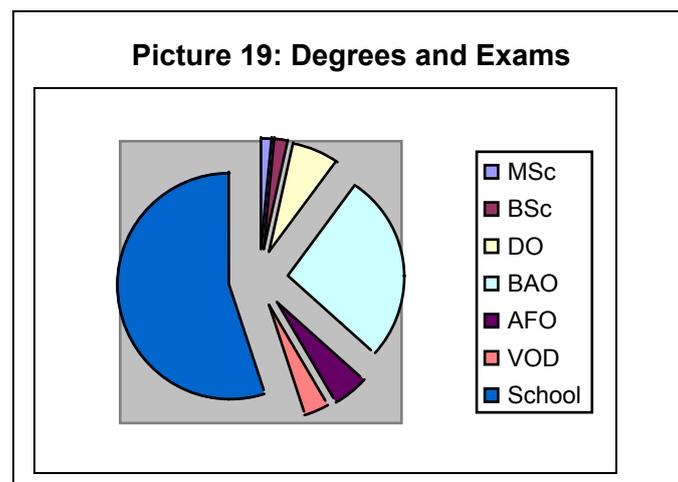
16x BAO

3x AFO

2x VOD

33x School

N(t)=60



Professions of Participants:

1x Dr.med.

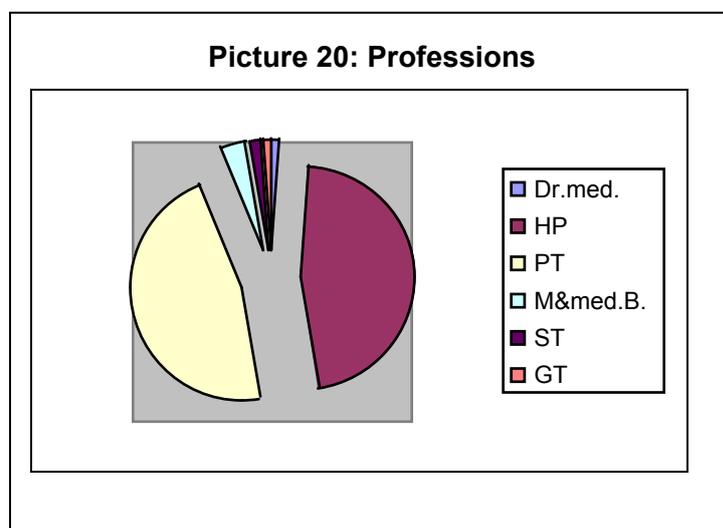
38 Heilpraktiker

38x Physiotherapist

3x Masseur & med.Bad.

1x Sports Teacher

1x Gymnastic Teacher



6.3.3 Evaluation of the Results of all Questions

6.3.3.1 The Necessity to Eliminate „The North South Gradient“

During the pretest of this study an evaluation of the North South gradient was not done because four participating osteopaths were not enough, especially because two of them were married. Because of this unexpected problems appeared during the evaluation of the results.

First problem: It was not possible to get valid information about the population per zip code area as a whole to be used as a comparative figure. In public data bases only the amount of osteopaths was available.

Second problem: The participants' answers show that the place of living and the place of postgraduate education differ (counties and countries). This means that there is no chance to show the relationship without risking the anonymity of the participants. The protection of personal rights as put down in the introduction letter left no chance for further investigation.

Third problem: This problem was a mathematical one because the participation in zip code area two was too low to be compared to zip code areas three and seven:

(copied from „Survey of Participation“ in this Thesis)	
Participation in the zip code two (PLZ 2) of Germany	≈ 9,72%
Participation in the zip code three (PLZ 3) of Germany	≈ 24,09%
<u>Participation in the zip code seven (PLZ 7) of Germany</u>	<u>≈ 27,73%</u>
Total participation N(T)=60	≈ 21,89%

The only Possible Result: The participation increases from North to South in certain parts of Germany.

Reasons & Consequences: If information about the population per zip code area is not available a relational comparison of the population with osteopaths is not possible. The data for the entire population is essential for a mathematical comparison of the three zip code areas. Thus, the „North South gradient“ had to be neglected. These problems and the resulting consequences were the topic of a private consultation of Dipl.Ing. J. Liebelt.⁸⁷

6.3.3.2 The Necessity to Eliminate Question Seven from the Evaluation

Question seven was excluded from the investigation because the question was not understood correctly by all participants. In the pretest there was no such case of misunderstanding. The necessity to protect the form by a hidden calculator, limiting the result to 100 per cent was not considered. Out of $N(T)=60$, $N=28$ participants failed to answer correctly, because of a wrong calculation.

In one case the sum was less than 100% and in $N=27$ cases the sum was above 100%. This happened despite of the clear advice to pay attention to a maximum of 100%.^{vii} Question seven was also the reason for criticism as far as the free text area at the end of the questionnaire was concerned. To the majority of the study group this question did not seem to be clear. Hence this question failed because of insufficient preparation.

6.3.3.3 Results of Question One

The question (closed):

Do you know WG Sutherland's mechanical principles of cranio sacral osteopathy (CSO)?

Possible answers:

YES / NO

6.3.3.3.1 Zip Code Two

$N(2)=7$ (100%)

YES=7 (100%); No=0 (0%)

6.3.3.3.2 Zip Code Three

$N(3)=20$ (100%)

YES=20 (100%); NO=0 (0%)

6.3.3.3.3 Zip Code Seven

$N(7)=33$ (100%)

YES=31 (93,93%); No=2 (6,06%)

^{vii} Amendment by author: Eliminating question seven is caused by $N=28$ wrong answers ($N=14$ of each sex).

6.3.3.3.4 Summary Question One

Total:

N(t)=60 (100%)

YES=58 (96,66%); NO=2 (3,33%)

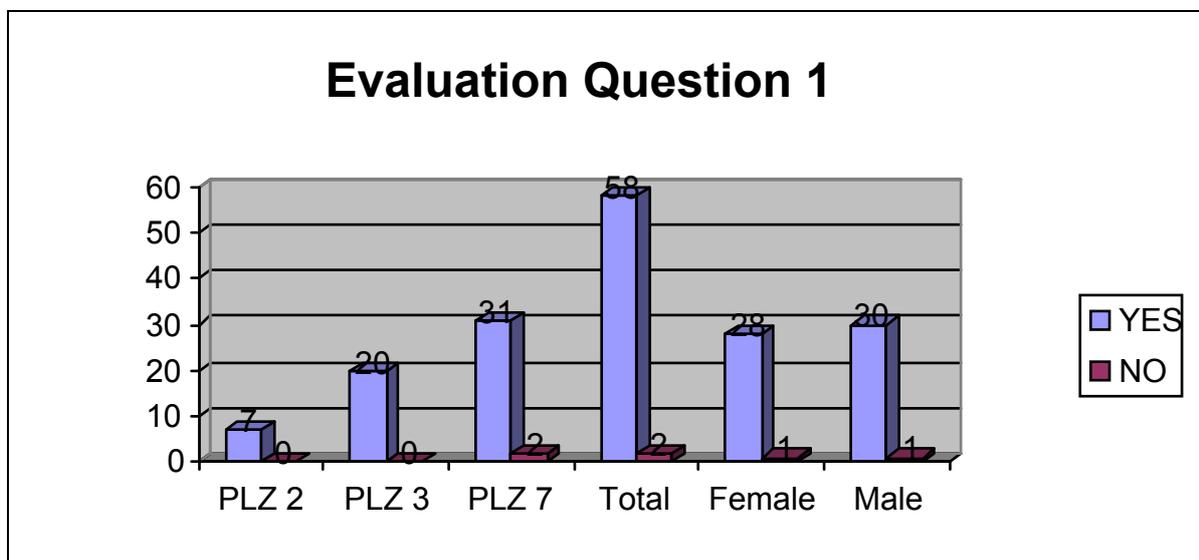
By sex:

N(T)=60; N=29 female (100%) / N=31 male (100%)

Female: 28=YES (96,55%); 1=NO (3,44%)

Male: 30=YES (96,77%); 1=NO (3,22%)

Picture 21: Evaluation Question One



Finally:

zip code two=100% YES

zip code three=100% YES

zip code seven= YES=31 (93,93%); No=2 (6,06%)

AV. =96,66% (99,71% Female and 99,69% Male)

In certain parts of Germany an average of 96,66% of all osteopaths know WG Sutherland's mechanical principles of cranial osteopathy.

Female: 28=YES (96,55%); 1=NO (3,44%)

Male: 30=YES (96,77%); 1=NO (3,22%)

This shows a high level of unanimous knowledge in general, and this by sex also.

6.3.3.4 Results of Question Two

The question (closed):

Do you know the five factors of WG Sutherland's the primary resperatory mechanism (PRM)?

Possible answers:

YES / NO

6.3.3.4.1 Zip Code Two

N(2)=7 (100%)

YES=7 (100%); NO=0 (0%)

6.3.3.4.2 Zip Code Three

N(3)=20 (100%)

YES=20 (100%); NO=0 (0%)

6.3.3.4.3 Zip Code Seven

N(7)=33 (100%)

YES=32 (96,96%); NO=1 (3,03%)

6.3.3.4.4 Summary Question Two

Total:

N(t)=60 (100%)

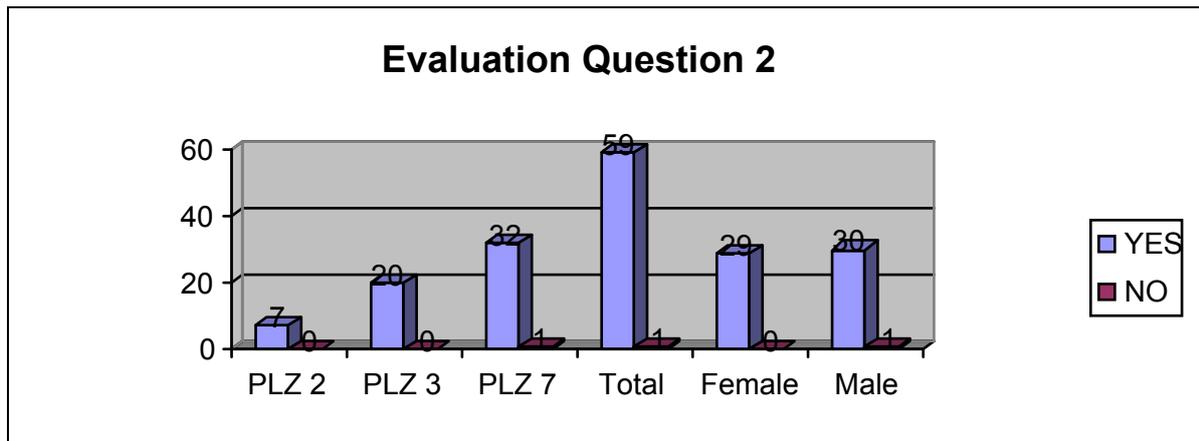
YES=59 (98,33%); NO=1 (1,66%)

By sex:

N(T)=60; N=29 female (100%) / N=31 male (100%)

Female: 29=YES (100%); 0=NO (0%)

Male: 30=YES (96,77%); 1=NO (3,22%)

Picture 22: Evaluation Question Two

Finally: zip code two=YES (100%)
zip code three=YES (100%)
zip code seven= YES=32 (96,96%); NO=1 (3,03%)
AV. =98,98% (100% Females and 99,67% Males)

In certain parts of Germany an average of 98,98% of all osteopaths know the five factors of WG Sutherland's PRM.

Female and male: 30=YES (96,77%); 1=NO (3,22%)

This shows a high level of unanimous knowledge in general.

6.3.3.5 Results of Question Three

The question (semi closed):

Are you familiar with WG Sutherland's the books and writings?

Possible answers / more than one answer allowed:

Who is WG Sutherland?

I know some relevant issues from basic education and I think that these are sufficient.

I am no longer interested in the topic.

I try to increase my knowledge in all areas of osteopathy regularly.

I know his writings well.

I know his writings very well.

I think I am an expert in this field.

6.3.3.5.1 Zip Code Two

N(2)=7 (100%)

Who is WG Sutherland?	N=1 (14,28%) (this participant also marked answer four)
I know some relevant issues from basic education and I think that these are sufficient.	N=1 (14,28%)
I am no longer interested in the topic.	N=0 (0%)
I try to increase my knowledge in all areas of osteopathy regularly!	N=5 (71,42%)
I know his writings well.	N=3 (42,85%)
I know his writings very well.	N=0 (0%)
I think I am a expert in this field	N=0 (0)

6.3.3.5.2 Zip Code Three

N(3)=20

Who is WG Sutherland?	N=1 (5%)(-5)	(four participants also marked chance 5- this constellation logically is not possible.)
I know some relevant issues from basic education and I think that these are sufficient.	N=2 (10%)	
I am no longer interested in the topic.	N=1 (5%)	
I try to increase my knowledge in all areas of osteopathy regularly.	N=18 (90%)	
I know his writings well.	N=7 (35%) (-11)	(four participants' answers might be eliminated here; notice: reasonable next to chance one under this point in the text).
I know his writings very well.	N=1 (5%) (-2)	(one participant also chose chance one in the question and might be eliminated, too)
I think I am a expert in this field.	N=0 (0%)	

6.3.3.5.3 Zip Code Seven

N(7)=33 (100%)

Who is WG Sutherland?	N=2 (6,06%)
I know some relevant issues from basic education and I think that these are sufficient.	N=11 (33,33%)
I am no longer interested in the topic.	N=2 (6,06%)
I try to increase my knowledge in all areas of osteopathy regularly.	N=28 (84,84%)
I know his writings well.	N=8 (24,24%)
I know his writings very well.	N=0 (0%)
I think I am a expert in this field.	N=0 (0%)

6.3.3.5.4 Summary Question Three

Total:

N(t)=60 (100%)

Who is WG Sutherland?	N=4 (6,66%)	4
I know some relevant issues from basic education and I think that these are sufficient.	N=14 (23,33%)	2
I am no longer interested in the topic.	N=3 (5%)	5
I try to increase my knowledge in all areas of osteopathy regularly.	N=51 (85%)	1
I know his writings well.	N=9 (15%)	3
I know his writings very well.	N=1 (1,66%)	6
I think, I am a expert in this field.	N=0 (0%)	7

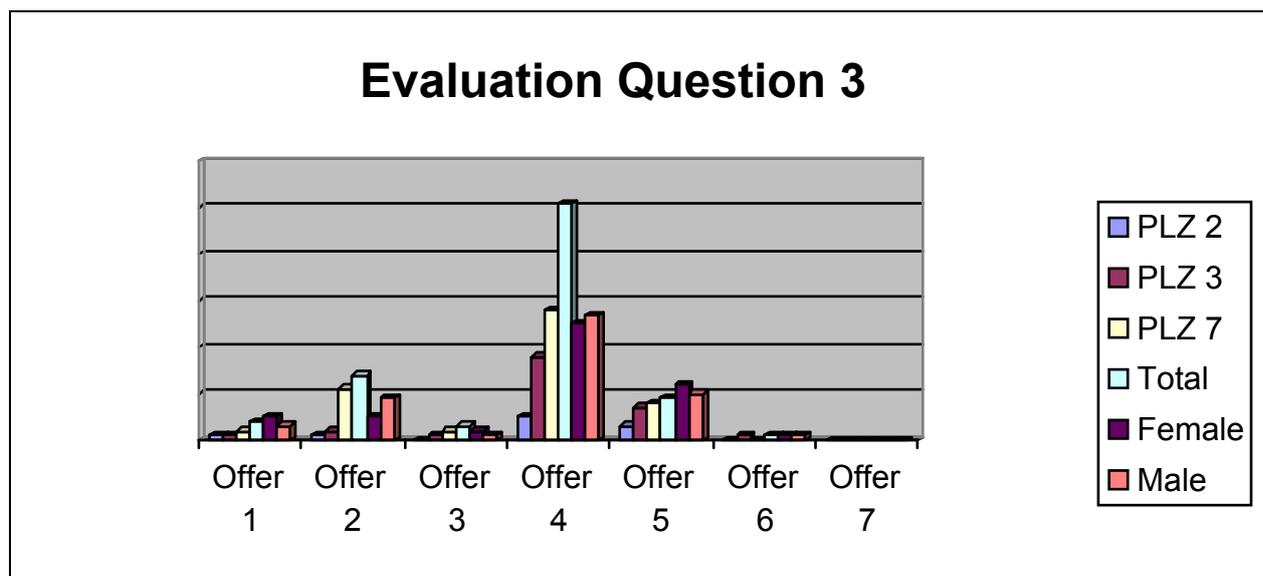
By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

Who is WG Sutherland?	Female N=5 (17,24%) 3	Male N=3 (9,67%)	4
I know some relevant issues from basic education and I think that these are sufficient.	Female N=5 (17,24%) 3	Male N=9 (29,03%)	3
I am no longer interested in the topic.	Female N=2 (6,89%) 4	Male N=1 (3,22%)	5
I try to increase my knowledge in all areas of osteopathy regularly.	Female N=25 (86,20%) 1	Male N=27 (87,09%)	1
I know his writings well.	Female N=12 (41,37%) 2	Male N=10 (32,25%)	2
I know his writings very well.	Female N=1 (3,44%); 5	Male N=1 (3,22%)	5
I think I am a expert in this field.	Female N=0 (0%); 6	Male N=0 (0%)	6

***(In the female group, two times two logical conflicts were caused. These conflicts were described in the evaluation of zip code three.)

Picture 23: Evaluation Question Three

Final summary by ranking:Total:

N(t)=60 (100%)

I try to increase my knowledge in all areas of osteopathy regularly.

N=51 (85%) 1

I know some relevant issues from basic education and I think that these are sufficient.

N=14 (23,33%) 2

I know his writings well.

N=9 (15%) 3

Who is WG Sutherland?

N=4 (6,66%) 4

I am no longer interested in the topic.

N=3 (5%) 5

I know his writings very well.

N=1 (1,66%) 6

I think, I am a expert in this field.

N=0 (0%) 7

By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

I try to increase my knowledge in all areas of osteopathy regularly.

Female N=25 (86,20%) 1

I know his writings well.

Female N=12 (41,37%) 2

Who is WG Sutherland?

Female N=5 (17,24%) 3

I know some relevant issues from basic education and I think that these are sufficient.

Female N=5 (17,24%) 3

I am no longer interested in the topic.

Female N=2 (6,89%) 4

I know his writings very well.

Female N=1 (3,44%); 5

I think I am a expert in this field.

Female N=0 (0%); 6

I try to increase my knowledge in all areas of osteopathy regularly.	Male N=27 (87,09%)	1
I know his writings well.	Male N=10 (32,25%)	2
I know some relevant issues from basic education and I think that these are sufficient.	Male N=9 (29,03%)	3
Who is WG Sutherland?	Male N=3 (9,67%)	4
I am no longer interested in the topic.	Male N=1 (3,22%)	5
I know his writings very well.	Male N=0 (0%)	6
I think I am a expert in this field.	Male N=0 (0%)	6

85% of all investigated osteopaths try to increase their knowledge regularly, 23,33% know the writings from their basic education and they think that this would be sufficient. 15% know Sutherland's writings well and 5% are no longer interested in them. Only one female participant knows his writings very well and not one participant thinks of herself/himself as an expert in this field. Five osteopaths mark not to know WG Sutherland at all. Evaluated by sex female and male rankings are almost identical. The male group seems to be a little more familiar with WG Sutherland's writings, because only three out of 31 male participants choose not to know Sutherland in contrast to the female group (N=5 out of 29). This ranking demonstrates a unanimous knowledge concerning the writings of WG Sutherland.

6.3.3.6 Results of Question Four

The question (semi closed):

Do you apply techniques from cranial osteopathy in your daily work with the patients?

Possible answers:

Never

Rarely

Often

Always

6.3.3.6.1 Zip Code Two

N(2)=7

Never: **N=0 (0%)**

Rarely: **N=0 (0%)**

Often: **N=1 (14,28%)**

Always: **N=6 (85,71%)**

6.3.3.6.2 Zip Code Three

N(3)=20

Never:	N=0 (0%)
Rarely:	N=0 (0%)
Often:	N=8 (40%)
Always:	N=12 (60%)

6.3.3.6.3 Zip Code Seven

N(7)=33

Never:	N=1 (3,03%)
Rarely:	N=1 (3,03%)
Often:	N=7 (21,21%)
Always:	N=24 (72,72%)

6.3.3.6.4 Summary Question FourTotal:

N(t)=60 (100%)

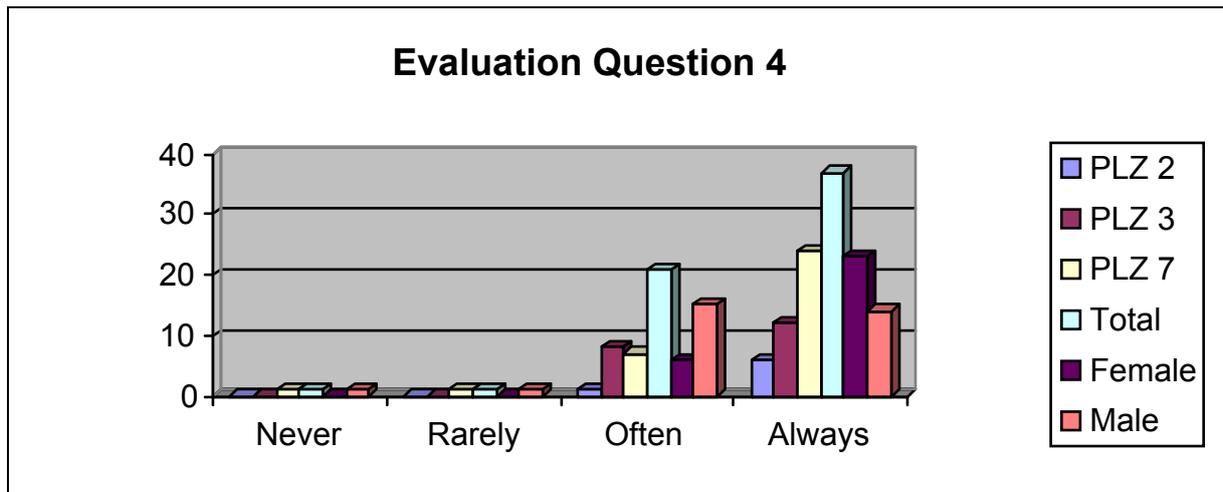
Never:	N=1 (1,66%)	3
Rarely:	N=1 (1,66%)	3
Often:	N=21 (35%)	2
Always:	N=37 (61,66%)	1

By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

Never:	Female N=0 (0%)	3	Male N=1 (3,22%)	3
Rarely:	Female N=0 (0%)	3	Male N=1 (3,22%)	3
Often:	Female N=6 (20,68%)	2	Male N=15 (48,38%)	1
Always:	Female N=23 (79,31%)	1	Male N=14 (45,16%)	2

Picture 24: Evaluation Question Four

Final summary by ranking:Total:

N(t)=60 (100%)

Always:	N=37 (61,66%)	1
Often:	N=21 (35%)	2
Rarely:	N=1 (1,66%)	3
Never:	N=1 (1,66%)	3

By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

Always:	Female N=23 (79,31%)	1
Often:	Female N=6 (20,68%)	2
Rarely:	Female N=0 (0%)	3
Never:	Female N=0 (0%)	3
Often:	Male N=15 (48,38%)	1
Always:	Male N=14 (45,16%)	2
Rarely:	Male N=1 (3,22%)	3
Never:	Male N=1 (3,22%)	3

A total of 61,66% of the investigated osteopaths always used certain parts of cranial osteopathy (Female=23; Male=14). The female osteopaths seem to be somewhat more cranial since 79,31% always used CO and 20,68% often use it. In the male group only 45,16% always use CO and 48,38% often use it. Only one male osteopath never uses CO in osteopathic treatment. This shows a high level of an almost unanimous practice within the

female group and a low level of split decision within the male group concerning the frequency of CO applications in osteopathic treatment.

6.3.3.7 Results of Question Five

The question (semi closed):

Have you attended special postgraduate courses that specialized in cranial osteopathy?

Possible answers:

Not one.

Only courses where CO was one subject among others.

(less than five)

(more than five)

(more than 10)

6.3.3.7.1 Zip Code Two

N(2)=7

No one **N=1 (14,28%)**

Only courses where CO was one subject among others.

N=1 (14,28%)

(less than five)

N=0 (0%)

(more than five)

N=4 (57,14%)

(more than 10)

N=1 (14,28%)

6.3.3.7.2 Zip Code Three

N(3)=20

Not one. **N=5 (25%)**

Only courses where CO was one subject among others.

N=2 (10%)

(less than five)

N=6 (30%)

(more than five)

N=3 (15%)

(more than 10)

N=4 (20%)

6.3.3.7.3 Zip Code Seven

N(7)=33 (100%)

Not one. **N=8 (24,24%)**

Only courses where CO was one subject among others.

	N=4 (12,12%)
(less than five)	N=14 (42,42%)
(more than five)	N=8 (24,24%)
(more than 10)	N=0 (0%)

6.3.3.7.4 Summary Question Five

Total:

N(t)=60 (100%)

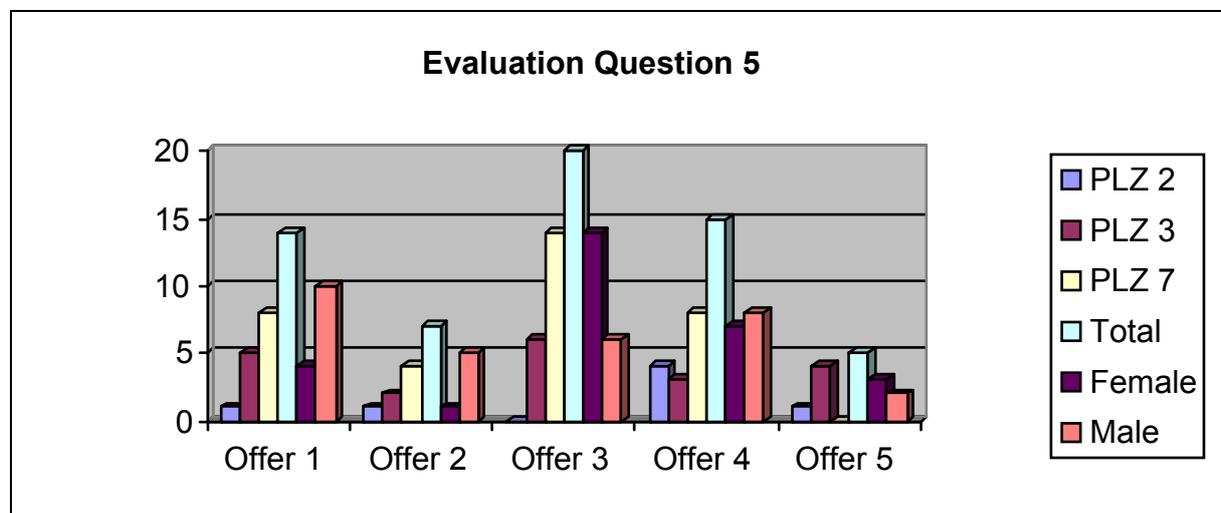
Not one.	N=14 (23,33%)	3
Only courses where CO was one subject among others.	N=7 (11,66%)	4
(less than five)	N=20 (33,33%)	1
(more than five)	N=15 (25%)	2
(more than 10)	N=5 (8,33%)	5

By sex:

N(T)=60; N=29 female / N=31 male

Not one.	Female N=4 (13,79%)	3	Male N=10 (32,25%)	1
Only courses where CO was one subject among others.	Female N=1 (3,44%)	5	Male N=5 (16,12%)	4
(less than five)	Female N=14 (48,27%)	1	Male N=6 (19,35%)	3
(more than five)	Female N=7 (24,13%)	2	Male N=8 (25,80%)	2
(more than 10)	Female N=3 (10,34%)	4	Male N=2 (6,45%)	5

Picture 25: Evaluation Question Five



Final summary by ranking:Total:

N(t)=60 (100%)

(less than five)	N=20 (33,33%)	1
(more than five)	N=15 (25%)	2
Not one.	N=14 (23,33%)	3
Only courses where CO was one subject among others.	N=7 (11,66%)	4
(more than 10)	N=5 (8,33%)	5

By sex:

N(T)=60; N=29 female / N=31 male

(less than five)	Female N=14 (48,27%)	1
(more than five)	Female N=7 (24,13%)	2
Not one.	Female N=4 (13,79%)	3
(more than 10)	Female N=3 (10,34%)	4
Only courses where CO was one subject among others.	Female N=2 (6,88%)	5
Not one.	Male N=10 (32,25%)	1
(more than five)	Male N=8 (25,80%)	2
(less than five)	Male N=6 (19,35%)	3
Only courses where CO was one subject among others.	Male N=5 (16,12%)	4
(more than 10)	Male N=2 (6,45%)	5

Out of N=60 osteopaths (29 female; male 31) N=20 (14 female; 6 male) attended less and N=15 (7 female; male 8) attended more than five postgraduate courses in CO. N=14 (4 female, male 10) did not attend any course. N=7 osteopaths (2 female; male 5) attended courses where CO was only one subject among other topics referring to special diseases. N=5 (3 female; male 2) attended more than 10 postgraduate courses in CO. This represents a high level of a non-unanimous behavior in general, and by sex also.

6.3.3.8 Results of Question SixThe question (semi closed):

Have you attended courses in other fields?

Possible answers:

HVLA and thrust techniques (manual manipulation by impuls)

Fascia techniques

Muscle Energy Techniques (MET)

Visceral techniques

Embryology

Anatomy & physiology

Psychology & psychiatry

Others

6.3.3.8.1 Zip Code Two

N(2)=7 (100%)

HVLA and thrust techniques (manual manipulation by impuls)	N=2 (28,57%)
Fascia techniques	N=4 (57,14%)
Muscle Energy Techniques (MET)	N=4 (57,14%)
Visceral techniques	N=4 (57,14%)
Embryology	N=3 (42,85%)
Anatomy & physiology	N=3 (42,85%)
Psychology & psychiatry	N=0 (42,85%)
Others	N=3 (42,85%)

6.3.3.8.2 Zip Code Three

N(3)=20 (100%)

HVLA and thrust techniques (manual manipulation by impuls)	N=3 (15%)
Fascia techniques	N=8 (40%)
Muscle Energy Techniques (MET)	N=2 (10%)
Visceral techniques	N=8 (40%)
Embryology	N=3 (15%)
Anatomy & physiology	N=8 (40%)
Psychology & psychiatry	N=3 (15%)
Others	N=20 (100%)

6.3.3.8.3 Zip Code Seven

N(7)=33

HVLA and thrust techniques (manual manipulation by impuls)	N=8 (24,24%)
Fascia techniques	N=20 (60,60%)
Muscle Energy Techniques (MET)	N=6 (18,18%)

Visceral techniques	N=11 (33,33%)
Embryology	N=12 (36,36%)
Anatomy & physiology	N=14 (42,42%)
Psychology & psychiatry	N=6 (18,18%)
Others	N=27 (81,81%)

6.3.3.8.4 Summary Question Six

Total:

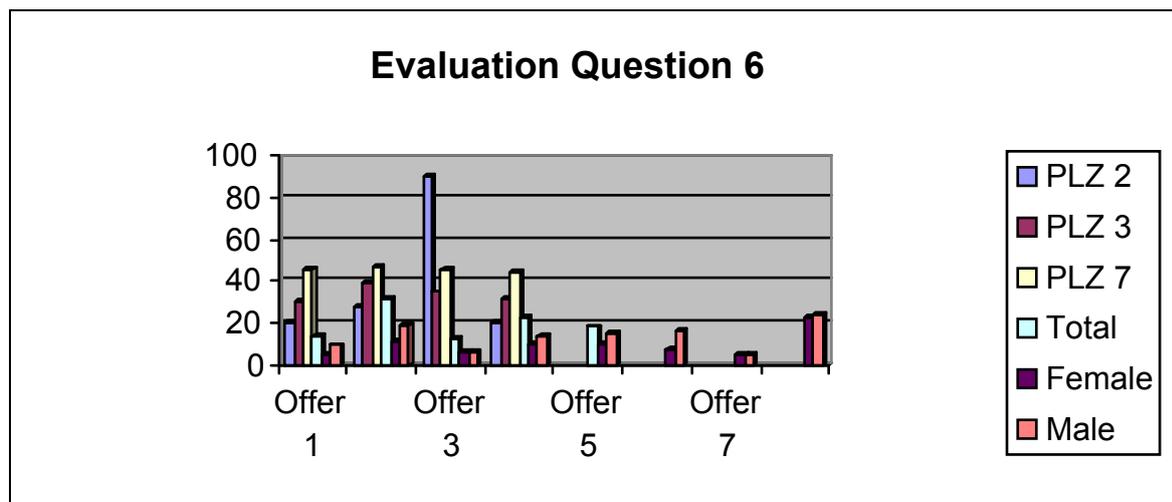
N(t)=60 (100%)

HVLA and thrust techniques (manual manipulation by impuls)	N=13 (21,66%)	6
Fascia techniques	N=30 (50%)	2
Muscle Energy Techniques (MET)	N=12 (20%)	7
Visceral techniques	N=23 (38,33%)	3
Embryology	N=18 (30%)	5
Anatomy & physiology	N=23 (38,33%)	3
Psychology & psychiatry	N=9 (15%)	8
Others	N=60 (100%)	1

By sex:

N(T)=60; N=29 female / N=31 male

HVLA and thrust techniques (manual manipulation by impuls)				
	Female N=4 (13,97%)	8	Male N=9 (29,03%)	6
Fascia techniques	Female N=11 (37,93%)	2	Male N=19 (61,29%)	2
Muscle Energy Techniques	Female N=6 (20,68%)	6	Male N=6 (19,35%)	7
Visceral techniques	Female N=10 (34,48%)	4	Male N=13 (41,93%)	5
Embryology	Female N=10 (34,84%)	3	Male N=15 (48,38%)	4
Anatomy & physiology	Female N=7 (24,13%)	5	Male N=16 (51,61%)	3
Psychology & psychiatry	Female N=5 (17,24%)	7	Male N=4 (12,90%)	8
Others	Female N=23 (79,31%)	1	Male N=24 (77,41%)	1

Picture 26: Evaluation Question SixFinal summary by ranking:Total:

N(t)=60 (100%)

Others	N=60 (100%)	1
Fascia techniques	N=30 (50%)	2
Anatomy & physiology	N=23 (38,33%)	3
Visceral techniques	N=23 (38,33%)	3
Embryology	N=18 (30%)	5
HVLA and thrust techniques (manual manipulation by impuls)	N=13 (21,66%)	6
Muscle Energy Techniques (MET)	N=12 (20%)	7
Psychology & psychiatry	N=9 (15%)	8

By sex:

N(T)=60; N=29 female / N=31 male

Others	Female N=23 (79,31%)	1
Fascia techniques	Female N=11 (37,93%)	2
Embryology	Female N=10 (34,84%)	3
Visceral techniques	Female N=10 (34,84%)	3
Anatomy & physiology	Female N=7 (24,13%)	5
Muscle Energy Technics (MET)	Female N=6 (20,68%)	6
Psychology & psychiatry	Female N=5 (17,24%)	7
HVLA and thrust techniques (manual manipulation by impuls)	Female N=4 (13,97%)	8
Others	Male N=24 (77,41%)	1
Fascia techniques	Male N=19 (61,29%)	2

Anatomy & physiology	Male N=16 (51,61%)	3
Embryology	Male N=13 (41,93%)	4
Visceral techniques	Male N=13 (41,93%)	4
HVLA and thrust techniques (manual manipulation by impuls)		
	Male N=9 (29,03%)	6
Muscle Energy Techniques	Male N=6 (19,35%)	7
Psychology & psychiatry	Male N=5 (12,90%)	8

All osteopaths (N=60) attended courses in other fields. Leading osteopathic fields are fascia techniques; N=30 osteopaths (11 female, male 19) visit courses in this field followed by courses in anatomy & physiology N=23 (7 female, male 16). Visceral techniques are the focus of N=23 (10 female, male 13) followed by embryology with a difference of 8,33% (10 female, male 13). N=12 osteopaths (six of each sex) visit MET courses; finally courses in psychology & psychiatry were attended by N=9 (4 female, male 5).

These results show a high level of unanimous postgraduate behavior. The female group seems to be more interested in embryology and visceral techniques followed by anatomy & physiology. The male group focuses on anatomy & physiology, first followed by embryology; they seem to be the least interested in visceral techniques. Courses in HVLA techniques, MET and psychology & psychiatry are attended less by males.

6.3.3.9 Results of Question Eight

The question (closed):

Do you know that in cranial osteopathy both a *Biomechanic* and a *Biodynamic Model* exist?

Possible answers:

YES / NO

6.3.3.9.1 Zip Code Two

N(2)=7 (100%)

YES=7 (100%); NO=0 (0%)

6.3.3.9.2 Zip Code Three

N(3)=20 (100%)

YES=19 (95%); NO=1 (5%)

6.3.3.9.3 Zip Code Seven

N(7)=33 (100%)

YES=32 (96,96%); NO=1 (3,03%)

6.3.3.9.4 Summary Question Eight

Total:

N(t)=60 (100%)

YES=58 (96,66%); NO=2 (3,33%)

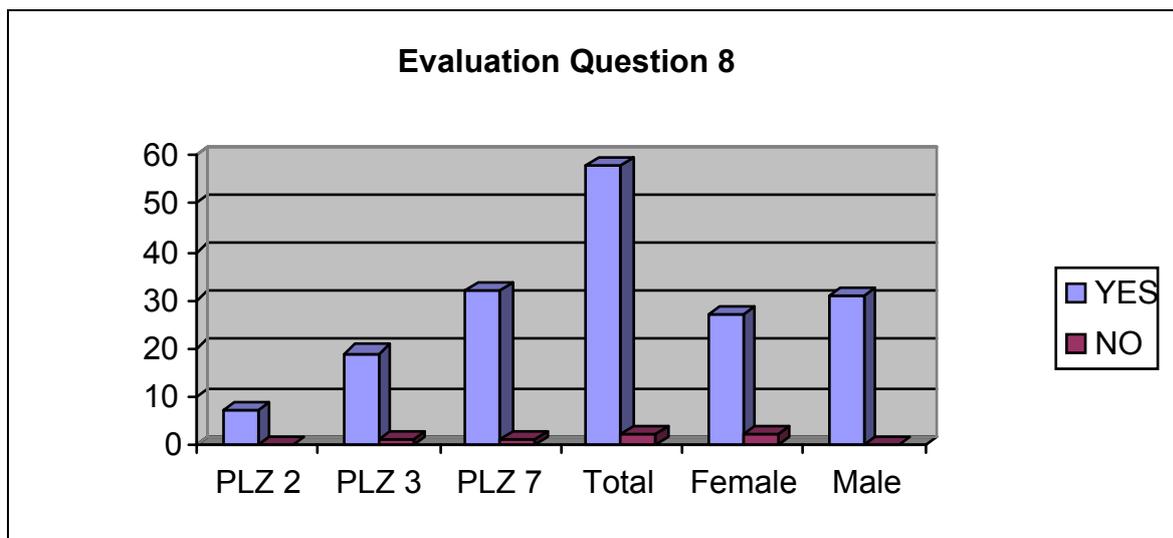
By sex:

N(T)=60; N=29 female (100%) / N=31 male (100%)

Female: YES=27 (93,10%); NO=2 (6,89%)

Male: YES=31 (100%) ; NO=0 (0%)

Picture 27: Evaluation Question Eight



Finally: zip code two=YES =100%

zip code three= YES=19 (95%); NO=1 (5%)

zip code seven= YES=32 (96,96%); NO=1 (3,03%)

AV. =99,82%

Female: YES=27 (93,10%); NO=2 (6,89%)

Male: YES=31 (100%) ; NO=0 (0%)

In certain parts of Germany 99,82% of the osteopaths know that a *Biomechanic* and a *Biodynamic Model* exist in cranial osteopathy.

Female: YES=27 (93,10%); NO=2 (6,89%)

Male: YES=31 (100%) ; NO=0 (0%)

This shows a high level of unanimous knowledge, also evaluated by sex.

6.3.3.10 Results of Question Nine

The question (closed):

Do you know the differences between these two models?

Possible answers:

YES / NO

6.3.3.10.1 Zip Code Two

N(2)=7 (100%)

YES=5 (71,42%); NO=2 (28,57%)

6.3.3.10.2 Zip Code Three

N(3)=20 (100%)

YES=15 (75%); NO=5 (25%)

6.3.3.10.3 Zip Code Seven

N(7)=33 (100%)

YES=27 (81,81%); NO=6 (18,18%)

6.3.3.10.4 Summary Question Nine

Total:

N(t)=60 (100%)

YES=47 (78,33%); NO=13 (21,66%)

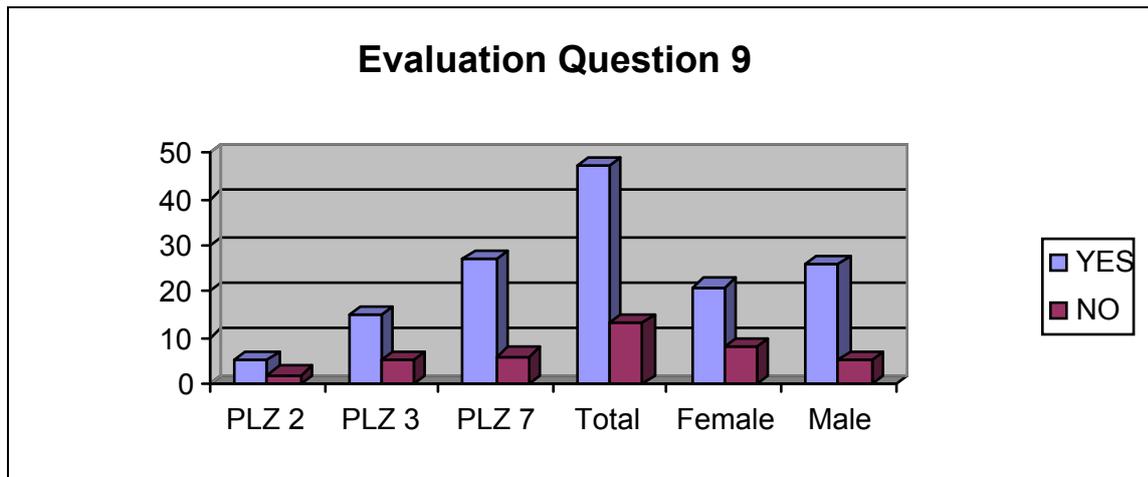
By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

Female: YES=21 (72,41%); NO=8 (27,58%)

Male: YES=26 (83,87%); NO=5 (16,12%)

Picture 28: Evaluation Question Nine



Finally: zip code two= YES=5 (71,42%); NO=2 (28,57%)
zip code three= YES=15 (75%); NO=5 (25%)
zip code seven= YES=27 (81,81%); NO=6 (18,18%)
AV. = YES =76,01%; NO=23,91%

Female: YES=21 (72,41%); NO=8 (27,58%)

Male: YES=26 (83,87%); NO=5 (16,12%)

In certain parts of Germany 76,01% of the osteopaths know the difference between Sutherland's *Biomechanic* and *Biodynamic Model* as part of CO. This shows a high level of an almost unanimous knowledge.

6.3.3.11 Results of Question 10

The question (closed):

Within the *Biomechanic Model* the correction of a dysfunction is done by ligamentous or membranous activity?

Possible answers:

YES / NO

6.3.3.11.1 Zip Code Two

N(2)=7 (100%)

YES=7 (100%); NO=0 (0%)

6.3.3.11.2 Zip Code Three

N(3)=20 (100%)

YES=18 (90%); NO=2 (10%)

6.3.3.11.3 Zip Code Seven

N(7)=33 (100%)

YES=28 (84,84%); NO=5 (15,15%)

6.3.3.11.4 Summary Question 10

Total:

N(t)=60 (100%)

YES=53 (88,33%); NO=7 (11,66%)

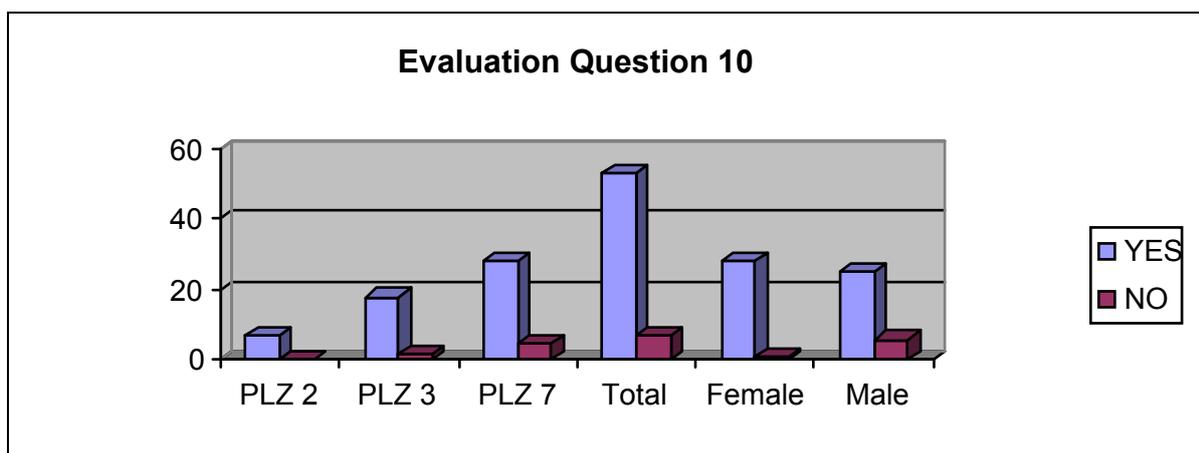
By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

Female: YES=28 (96,55%); NO=1 (3,44%)

Male: YES=25 (80,64%); NO=6 (19,35%)

Picture 29: Evaluation Question 10



Finally: zip code two= YES=7 (100%); NO=0 (0%)

Zip code three= YES=18 (90%); NO=2 (10%)

Zip code seven= YES=28 (84,84%); NO=5 (15,15%)

AV. = YES=91,61%; NO=8,38%

91,61% of the investigated osteopaths think that within Sutherland's *Biomechanic Model* the correction of dysfunctions is done by membranes or ligaments.

Female: YES=28 (96,55%); NO=1 (3,44%)

Male: YES=25 (80,64%); NO=6 (19,35%)

This represents a high level of unanimous knowledge.

6.3.3.12 Results of Question 11

The question (closed):

Within the Biodynamic Model the corrections of osteopathic dyfunctions are done by invisible parts of body fluids?

Possible answers:

YES / NO

6.3.3.12.1 Zip Code Two

N(2)=7 (100%)

YES=5 (71,42%); NO=2 (28,57%)

6.3.3.12.2 Zip Code Three

N(3)=20 (100%)

YES=17 (85%); NO=3 (15%)

6.3.3.12.3 Zip Code Seven

N(7)=33 (100%)

YES=27 (81,81%); NO=6 (18,18)

6.3.3.12.4 Summary Question 11

Total:

N(t)=60 (100%)

YES=49 (81,66%); NO=11 (18,33%)

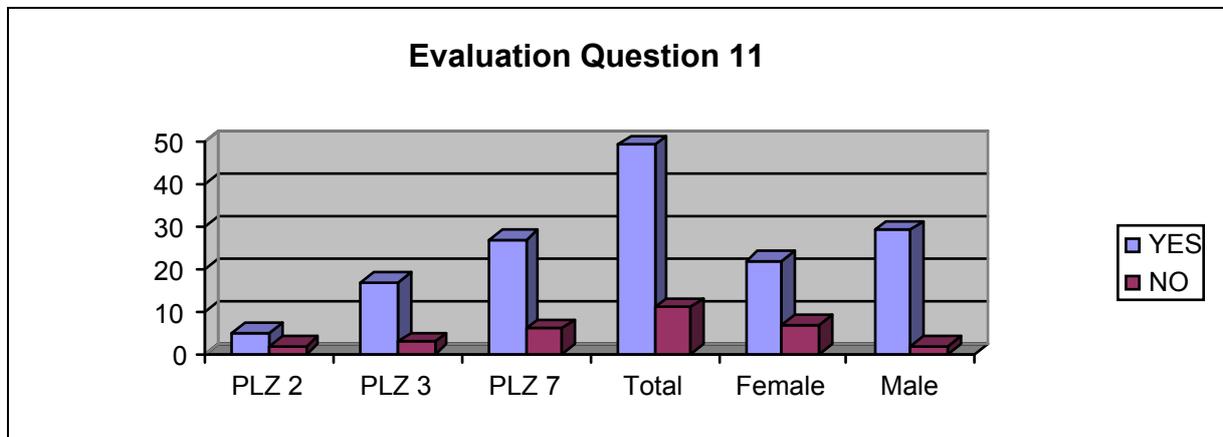
By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

Female: YES=22 (75,86%); NO=7 (24,13%)

Male: YES=29 (93,54%); NO=2 (6,45%)

Picture 30: Evaluation Question 11



Finally:

zip code two= YES=5 (71,42%); NO=2 (28,57%)

zip code three= YES=17 (85%); NO=3 (15%)

zip code seven= YES=27 (81,81%); NO=6 (18,18)

Av. = YES=79,41%; NO=20,58%

Within Sutherland's *Biodynamic Model* the correction of osteopathic dyfunctions should be done by invisible parts of the body fluids. 79,41% of the participants think that this is correct.

Female: YES=22 (75,86%); NO=7 (24,13%)

Male: YES=29 (93,54%); NO=2 (6,45%)

This represents a high level of almost unanimous knowledge.

6.3.3.13 Results of Question 12

The question (closed):

Do you differentiate between both models consciously in your daily work?

Possible answers:

YES / NO

6.3.3.13.1 Zip Code Two

N(2)=7 (100%)

YES=2 (28,57%); NO=5 (71,42%)

6.3.3.13.2 Zip Code Three

N(3)=20 (100%)

YES=11 (55%); NO=9 (45%)

6.3.3.13.3 Zip Code Seven

N(7)=33 (100%)

YES=14 (42,42%); NO=19 (57,57%)

6.3.3.13.4 Summary Question 12

Total:

N(t)=60 (100%)

YES=27 (45%); NO=33 (55%)

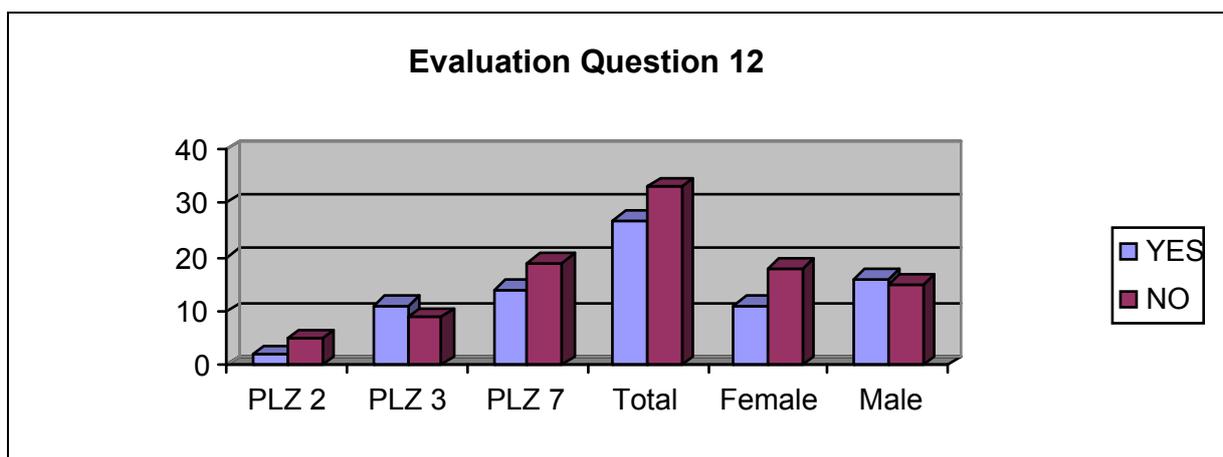
By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

Female: YES=11 (37,93%); NO=18 (62,06%)

Male: YES=16 (51,61%); NO=15 (48,38%)

Picture 31: Evaluation Question 12



Finally: zip code two= YES=2 (28,57%); NO=5 (71,42%)

zip code three= YES=11 (55%); NO=9 (45%)

zip code seven= YES=14 (42,42%); NO=19 (57,57%)

Av. = YES=41,99%; NO=57,99%

41,99% differentiate between both models in their daily work, 57,99% do not.

Female: YES=11 (37,93%); NO=18 (62,06%)

Male: YES=16 (51,61%); NO=15 (48,38%)

These results show a low level of a split decision concerning the YES answer and a high level of the NO answer. An evaluation by sex shows a low level of almost unanimous knowledge concerning the NO answer of the female group. The male group shows a consistent high level of a split decision.

6.3.3.14 Results of Question 13

The question (closed):

Do you consciously mix both models?

Possible answers:

YES / NO

6.3.3.14.1 Zip Code Two

N(2)=7 (100%)

YES=1 (14,28%); NO=6 (85,71%)

6.3.3.14.2 Zip Code Three

N(3)=20 (100%)

YES=9 (45%); NO=11 (55%)

6.3.3.14.3 Zip Code Seven

N(7)=33 (100%)

YES=18 (54,54%); NO=15 (45,45%)

6.3.3.14.4 Summary Question 13

Total:

N(t)=60 (100%)

YES=28 (46,66%); NO=32 (53,33%)

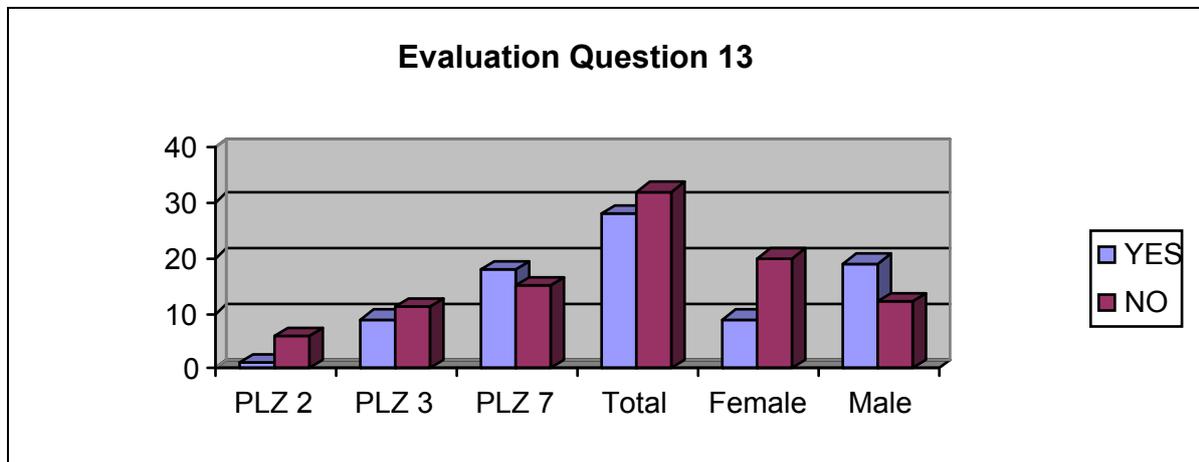
By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

Female: YES=9 (31,03%); NO=20 (68,96%)

Male: YES=19 (61,29%); NO=12 (38,70%)

Picture 32: Evaluation Question 13



Finally: zip code two= YES=1 (14,28%); NO=6 (85,71%)

zip code three= YES=9 (45%); NO=11 (55%)

zip code seven= YES=18 (54,54%); NO=15 (45,45%)

Av. = YES=37,94%; NO=62,05%

62,05% explain that they do not mix both models consciously.

Female: YES=9 (31,03%); NO=20 (68,96%)

Male: YES=19 (61,29%); NO=12 (38,70%)

This describes a low level of almost unanimous opinion. The female group shows a low level of almost unanimous opinion, while the male group shows no unanimous opinion at all.

6.3.3.15 Results of Question 14

The question (closed):

Do you maybe mix both models unconsciously?

Possible answers:

YES / NO

6.3.3.15.1 Zip Code Two

N(2)=7 (100%)

YES=7 (100%); NO=0 (0%)

6.3.3.15.2 Zip Code Three

N(3)=20 (100%)

YES=14 (70%); NO=6 (30%)

6.3.3.15.3 Zip Code Seven

N(7)=33 (100%)

YES=17 (51,51); NO=16 (48,48%)

6.3.3.15.4 Summary Question 14Total:

N(t)=60 (100%)

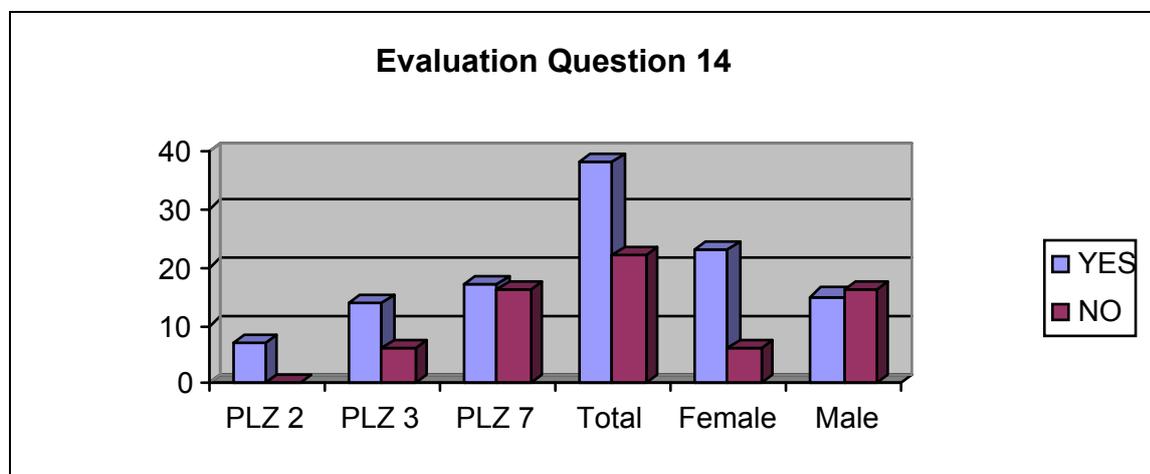
YES=38 (63,33%); NO=22 (36,66%)

By sex:

N(T)=60; N=29 female (100%)/ N=31 male (100%)

Female: YES=23 (79,31%); NO=6 (20,68%)

Male: YES=15 (48,38%); NO=16 (51,61%)

Picture 33: Evaluation Question 14

Finally:

zip code two= YES=7 (100%); NO=0 (0%)
 zip code three= YES=14 (70%); NO=6 (30%)
zip code seven= YES=17 (51,51); NO=16 (48,48%)
Av. = YES=73,83%; NO=26,16%

A high level of almost unanimous opinion or knowledge as far as the unconscious mixing of both models is concerned is shown by 73,83% (YES).

Female: YES=23 (79,31%); NO=6 (20,68%)

Male: YES=15 (48,38%); NO=16 (51,61%)

The result of this question presents a high level of almost unanimous opinion according to the unconscious mixing of both models by the participants. The female group seems to be aware of the unconscious mixing with a high level of almost unanimous opinion or knowledge. The male group is in a low level split decision in contrast to the female group and at the threshold between a high and a low level of almost unanimous opinion or knowledge.

6.3.3.16 Results of Question 15

The question (semi closed):

Do you know any **Biodynamic Models** which are different from WG Sutherland's?

Possible answers:

YES / NO

Free text area:

If YES, what, why and how are they different, What is new?

6.3.3.16.1 Zip Code Two

N(2)=7 (100%)

YES=1 (14,28%); NO=6 (85,71%)

Free text N=1 (14,28%)

6.3.3.16.2 Zip Code Three

N(3)=20 (100%)

YES=4 (20%); NO=16 (80%)

Free text N=5 (40%)

6.3.3.16.3 Zip Code Seven

N(7)=33 (100%)

YES=8 (24,24%); NO=25 (75,75%)

Free text N=4 (12,12%)

6.3.3.16.4 Summary Question 15

Total:

N(t)=60 (100%)

YES=13 (21,66%); NO=47 (78,33%)

Free text N=10 (16,66%); N=50 (83,33%) without free text

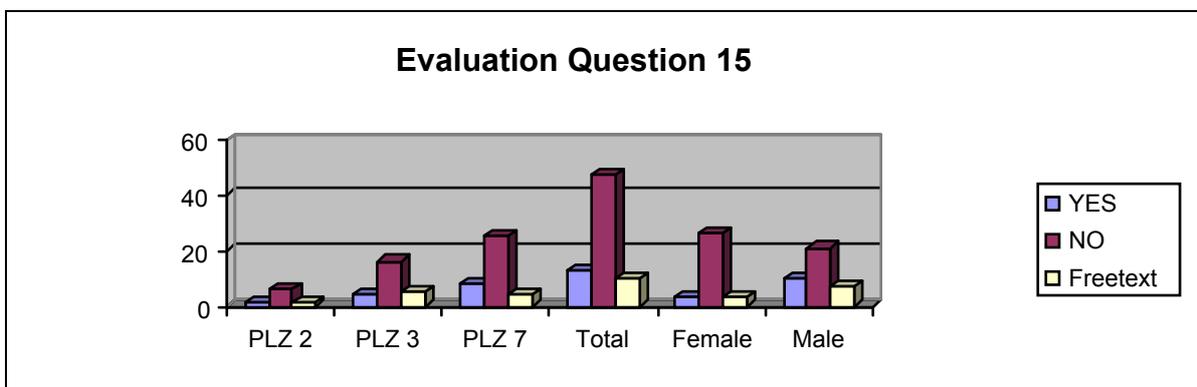
By sex:

N(T)=60; N=29 female (100%) / N=31 male (100%)

Female: YES=3 (10,34%); NO=26 (89,65%); Free text N=3 (10,34%)

Male: YES=10 (32,25%); NO=21 (67,74%); Free text N=7 (22,58%)

Picture 34: Evaluation Question 15



Finally:

zip code two= YES=1 (14,28%); NO=6 (85,71%)

zip code three= YES=4 (20%); NO=16 (80%)

zip code seven= YES=8 (24,24%); NO=25 (75,75%)

Av. = YES=19%; NO=80,48%; Free text N=25%

80,48% did not know any Biodynamic Models which were different to WG Sutherland's model.

Female: YES=3 (10,34%); NO=26 (89,65%); Free text N=3 (10,34%)

Male: YES=10 (32,25%); NO=21 (67,74%); Free text N=7 (38,70%)

Collection of Optional Text in the Free Text Area:

The German texts were copied from the answers by short key– maintaining wrong spelling, interpunctional or grammatical mistakes as well. Maintaining the original answers was considered, because different types of short messaging were used. Corrections and adaptations into English were done by author.

Zip Code Two: N=1 free text

Free text 1: *Ich bin bei Tom Shaver in der Ausbildung der Biodynamic.*

I am attending a postgraduate course in biodynamic with Tom Shaver.

Comment: This free text is no answer to the question, thus drop out!

Zip Code three: N=5 free texts (only one answer accepted)

Free text one: *Jim Jealous hat auf die Arbeiten von Sutherland und Anderen aufgebaut und weiterentwickelt. Eigentlich hat Sutherland auch schon mit der Potency, der Fluid in the Fluid gearbeitet, traf aber auf viel Kritik und Zweifler. Die Frage ist ob es überhaupt ein rein Biomechanisches Modell gibt, da auch Sutherland schon mit Fluktuationstechniken gearbeitet hat. --Guten Abend, erlauben Sie mir ein paar Anmerkungen: Habe mich über Ihre Fragestellung gewundert. Es gibt doch nie eine einheitliche Meinung zu Etwas. Für mich als Biodynamic Student von Jim Jealous und Tom Shaver gehört die Biodynamik nicht zur kranialen Osteopathie, sonder zur OSTEOPATHIE. In Ihrem Fragenkatalog schreiben sie über Kranio Sakrale Osteopathie. Sutherland hat immer über Kraniale Osteopathie gesprochen.*

Jim Jealous built his work on Sutherland's writings and the works of others'. Actually, Sutherland had already worked on the Potency, a fluid within a fluid, but at the time he had too many critics and skeptics. The question is whether there is one Biodynamic Model at all, because Sutherland had already worked with fluctuation techniques, too.----Good evening, please let me make some comments: I was surprised about the question in general. There is never one unanimous opinion on anything. For me, as a biodynamic student of Jim Jealous and Tom Shaver, biodynamic is not part of cranial osteopathy but of OSTEOPATHY in general. In your catalog of questions you wrote about cranio sacral osteopathy, but Sutherland always talked about cranial osteopathy.

Comment: This participant did not answer the question directly. Jealous and Shaver represent further development of cranial osteopathy, but the participant did not point out what was new or different? No explanation or description were given. Biodynamic was related to osteopathy in general, and not limited to

cranial osteopathy. The participant made one comment about the author's use of CO and/or CSO in the texts. He wrote that WG Sutherland did not talk about cranio sacral osteopathy, he only used cranial osteopathy. The question was not answered, thus DO.

Free text two: *Rollin Becker, Jim Jealous, Weiterentwicklung des Modells.*

Rollin Becker, Jim Jealous, further development of the model.

Comment: He did not answer the question as well; definitions of differences or new developments were missing, thus DO.

Free text three: *Die Biodynamik ist die Königin der Osteopathie, die Behandlung ist völlig unterschiedlich, ich gehe nicht in den Körper!*

Biodynamic is the queen of osteopathy, the treatment is totally different, I do not step into the body!

Comment: This answer was accepted because the description of the approach was not distributed by Sutherland. What has to be discussed is whether it is in line with Sutherland's principles if you do not step into the patient's body mentally. Still and Sutherland consistently approached the *material body* and were conscious of both other parts of Still's *Trinity*. Sutherland and Still left them untouched (co.chap. 5.1, 7.2).

Free text four: *Ich weiß nicht genau, ob das Modell von z.B. James Jealous anders ist.*

I do not know exactly, whether James Jealous' model is different.

Comment: This text did not answer the question at all; definitions of differences or new developments were missing, thus DO.

Free text five: *Michael Shea legt sehr viel Wert auf die long tide.*

Michael Shea strongly emphasizes the long tide.

Comment: This text did not answer the question either; definitions of differences or new developments were missing, thus DO.

Zip Code seven: N=4 free texts (1 answer accepted)

Free text one: *Wir haben mehr eine Unterschied zwischen Osteo-Menbranöse Ebene, Menbranöse Ebene und Liquido-Menbranöse Ebene; das ist was ich verstehe unter Bio-Mechanische und Bio-Dynamische Model.*

Comment: Definitions of differences or new developments were missing, thus DO.

Free text four: *Schade, dass zuwenig über biodynamische Modelle gefragt wird. Wie kann man wissen, ob hier überhaupt von demselben Modell geredet wird?*

It is a pity that so little is asked about Biodynamic Models. How can somebody know whether everybody talks about the same model?

Comment: Question not answered, thus DO.

Evaluation of the free texts:

Only two free texts (N=20%) out of a total of N=10 were accepted. Unfortunately these two accepted answers did not mention anything new. This supports the thesis that Sutherland's *Biodynamic Model* is still up to date by N=58 participants.

6.3.3.17 Criticism and Suggestions / Free Text Area

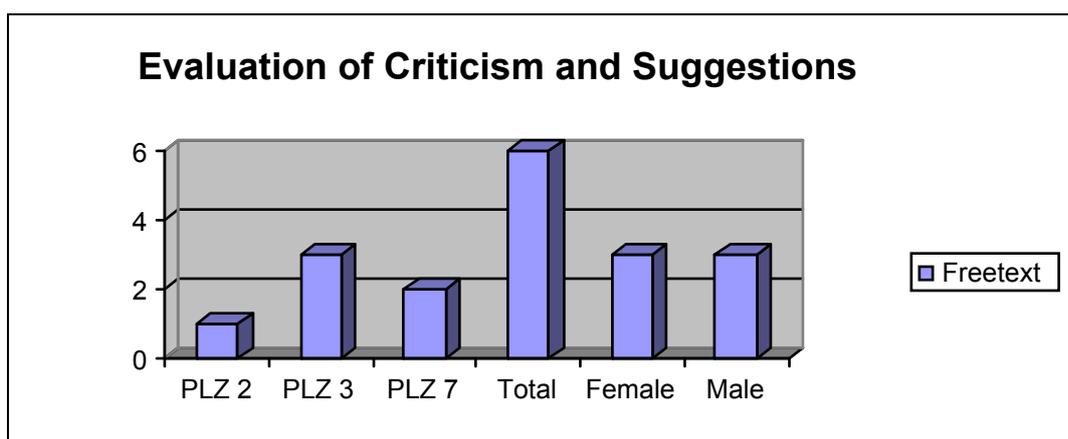
Evaluation:

zip code two:	N=1 free text (14,28%)
zip code three:	N=3 free texts (15%)
<u>zip code seven:</u>	<u>N=2 free texts (6,06%)</u>
Total:	N=6 free texts (10%)

By sex:

Female:	N=3 free texts (50%)
Male:	N=3 free texts (50%)

Table 20: Criticism and Suggestions



Collection of Optional Text in the Free Text Area at the End of the Form:

The German texts were copied from the answers by short key– maintaining wrong spelling, interpunctional or grammatical mistakes as well. Maintaining the original answers was

considered, because different types of short messaging were used. Corrections and adaptations into English were done by author.

Free text one: *Eindeutigkeit der Fragen, z.B. Berufserfahrung als Osteopath (seit wann zählt Osteopathie als Beruf - ist gemeint seit wann osteopathische Techniken am Patienten angewendet werden?) z.B. Titel (D.O. ist kein Titel sondern eine Marke.*

Clarity of the questions, for example, experience as an osteopath (since when is osteopathy an accepted profession, do you mean when are osteopathic technics applied to patients?); for example, title (D.O. is no title it is a trademark).

Free text two: *Frage seven verstehe ich nicht wie ich die Prozentzahlen vergeben soll. Muß ich auf 100% kommen? Im Verhältnis zu meiner Zeit? Zu meinen FoBi s insgesamt. Ende der Ausbildung 2005 hatte ich deutlich mehr, als jetzt nach 3 Jahren...*

Frage 3: Antworten unbefriedigend. Ich weiß soviel wie mir meine Lehrer beigebracht haben, halte das aber nicht für ausreichend.

I do not understand question seven as far as the percentage is concerned. Do I have to add up to 100%? In relation to my time? To my postgraduate education as a whole? At the end of the basic education, in 2005, I had much more than now, after three years...

Question three: Answers are dissatisfactory. I know as much as I was taught by my teachers, but I do not think that this is sufficient.

Comment: Partly because of this criticism question seven was eliminated from the evaluation of the results. Question three was intentionally designed as it is because this concurs with the fundamental principles of quantitative social research. If the question was designed as the participant demanded, there would have been a chance that osteopathic teachers were judged on a personal level.

Free text three: *Ich finde Ihre Fragestellung etwas merkwürdig. Ist dies wirklich das Niveau einer Masterthese??? Es gibt meiner Meinung nach wichtigere Themen in der Osteopathie. Diese Frage nützt weder dem Patienten in der täglichen Praxis noch hat es Bedeutung für die Anerkennung des Berufsbildes des Osteopathen. Trotzdem wünsche ich viel Erfolg für die These.*

I think that your questions as a whole are strange. Is this really the level of a master's thesis??? In my opinion there are more important things in osteopathy. This question does not help the patient in daily practice nor does it have any impact for the acknowledgement of osteopaths as a profession. Nevertheless wish you a lot of success for your thesis.

Comment: This participant is not happy with the scientific level of the thesis. He did not grasp the necessity to discuss Sutherland's models, possibly resulting in a common terminology. If the osteopathic community spoke with one voice, osteopathy and our patients would profit from this. A precondition for clinical studies is a review of the relevant theoretical backgrounds, because theoretical foundations of the osteopathic principles are of critical importance for the value of clinical studies.

Free text four: *die zeitangaben (drop down menu) ist ja wohl eher als scherz zu verstehen. wer sitzt 90 minuten an diesem fragebogen? es müssten reichen: 1-10, 10-20, 20-30 min. - kann mir kaum vorstellen, dass jemand mehr als 10-15 minuten aufwendet/aufwenden muss... - es müsste auch antwortmöglichkeiten wie \\\"weiß ich nicht\\\" oder \\\"keine angabe\\\" o.ä. geben. ansonsten viel erfolg.* The time frame (drop down menu) must be a joke: who needs 90 minutes to fill in this questionnaire? It should be enough: one to ten, ten to 20, 20 to 30 minutes.- I cannot believe that anybody would spend/more than ten to 15 minutes.....- there should be answering possibilities like: „I do not know“, „no answer“, or „something else“. Otherwise good luck.

Comment: This is a good argument, but as a matter of fact one participant needed more than 15 minutes to answer the questions. In the pretest the possible periods of duration were discussed orally. All participants of the pretest group accepted the offered time frames. Answers like „I do not know“ and „no answer“, or „something else“ are not useful in quantitative social research (Bernerburg 2006).

Free text five: *Frage 7 ist für mich verwirrend, wenn ich osteopathisch arbeite beschäftige ich mich vollzeit mit allen Aspekten, die mir bis dato bekannt sind und setze neu erlernte Kenntnisse, je nach Fobi ein (100%) Frage 14 kann wohl weder mit ja oder nein beantwortet werden, da ich unbewußt nicht entscheide!* Question seven is confusing to me; when I work osteopathically I workfull time on all aspects which I know. New knowledge is applied in relation to my

participation in new postgraduate courses. Question 14 can not be answered with YES or NO because I do not decide unconsciously.

Comment: Partly because of this criticism question seven was eliminated from the evaluation of the results. Question 14 offered a chance to think about different ways of approaching osteopathic treatment, which is important for the evaluation of way of decisions.

Free text six: *Es ist schwierig die Fragen zu beantworten, wenn man der Überzeugung ist, dass es kein kranielles System gibt.*

It is difficult to answer these questions if you are convinced that there is no cranial system.

Comment: This answer supports the view that there is only one osteopathy, because it denies a separation into models or systems of the human body. This coincides with Sutherland's and Still's principles of osteopathy.

SUMMARY: Finally only two of six comments were accepted this represents 33,33% out of all optional free texts.

N=25 (41,66%) osteopaths added free text next to semi closed question 15. Only two free texts (N=13,33%) of N=15 as a total were accepted in quality. The facts brought in are not really new and mainly without explanation.

Only N=6 (10%) added criticism or suggestions. Out of these four might be eliminated by minor quality. Criticism and answers concerning question seven were the reason to eliminate that question from statistical evaluation completely.

One participant criticized the style of writing in the form by emphasizing that Sutherland only talked about CO, not about CSO.

Sutherland never lost contact to *triune man* and *biogen* power, he consciously visualized bodies and their possible *transmutations* back to health

6.3.4 Summary of the Results from PRACTICAL PART

The original project - evaluation and survey of a North South gradient by zip code areas and sex had to be abandoned. Working on the statistics of the form it turned out that there would be no sufficient data to crystallize the North South. The study failed in this, because there was too little participation in zip code area two to be compared to the zip code areas three and seven. The evaluation of results was also complicated because question seven had to be eliminated completely. Misunderstanding in content resulted in 48,88% wrong answers/calculations. The digital form had not made any provision for a situation like this, for

example by hidden features, because the pretest had not shown any necessity. N=28 osteopaths answered with wrong calculations which either did not add up to 100% or went above 100% (N=14 from each sex).

Investigated were $N(g2+g3+g7)=274$ osteopaths from certain parts of Germany. N=71 questionnaire were returned, which had to be reduced by N=11 drop outs. Thus, a total of $N(T2+T3+T7)=60$ osteopaths were investigated as a whole. Thus the participation rate was 25,90% which a drop out rate of 4,01%. The participation rate was 21,89%; 29 female and 31 male osteopaths from certain parts of Germany.

Details of Participation:

zip code two=	N(T2)=7	(4 female, 3 male)	N(g2)=72	(4 DO)
zip code three=	N(T3)=20	(13 female, 7 male)	N(g3)=83	(5 DO)
zip code seven=	N(T7)=3	(12 female, 21 male)	N(g7)=119	(2 DO).

The average age (N=60) was 40,75 years (25 to 55 years) and the study group showed 5,63 years (1 to 17 years) of postgraduate osteopathic experience. The female osteopaths had an average age of 39,79 years and 4,65 years (1 to 11 years) of postgraduate osteopathic experience, whereas the male osteopaths showed an average of 41,64 years and 6,54 years (2 to 17 years) of experience. Thus, the 29 female osteopaths were 1,85 years younger than the men, whereas the 31 male osteopaths had 1,89 additional years of postgraduate experience.

Among all (N=60) osteopaths (N=28) graduated from College Sutherland in Germany, (N=32) from 11 other institutions (ten SKOM, five IFAO, five IAO, four Still Academy, two COE, one OSD, one ESO, one OAD, one DOK, one OAM, one VIO). Degrees and professions of the study group are as follows: one medical doctor, one M.Sc.Ost., one B.Sc.Ost., four DO®, 38 alternative practitioner, 38 physical therapists, one PE instructor, three masseurs & medical pool attendant, one masseur, one gymnastics teacher.

Only one male osteopath needed 15 to 30 minutes to fill in the questionnaire, all other osteopaths needed one to 15 minutes.

The questionnaire consisted of 15 questions, ten closed (YES/NO), five semi closed (four YES/NO and one question with eight answering possibilities to select from; one question had an additional field to add free text). At the end there was a free text area open for criticism and suggestions. The questions were arranged in a Big Block System, using repeatedly overlapping questions comparable to a zipper. The closed questions were evaluated in per cent, the semi closed questions without additional free text by a ranking. The only semi closed question with an optional free text area as well as the criticisms and suggestions had to be assessed, too.

The Quantitative Evaluation of 14 Questions:

Question one: In certain parts of Germany an average of 96,66% of all osteopaths know WG Sutherland's mechanical principles of cranial osteopathy.

Female: 28=YES (96,55%); 1=NO (3,44%)

Male: 30=YES (96,77%); 1=NO (3,22%)

This shows a high level of unanimous knowledge, and this also by sex.

Question two: In certain parts of Germany an average of 98,98% of all osteopaths know WG Sutherland's five factors of the PRM.

Female and male: 30=YES (96,77%); 1=NO (3,22%)

This shows a general high level of unanimous knowledge.

Question Three: 85% of all investigated osteopaths try to increase their knowledge regularly, 23,33% know the writings from their basic education and they think that this is sufficient. 15% know Sutherland's writings well and 5% are no longer interested in them. Only one female participant knows Sutherland's writings very well and not one participant thought of her/himself as an expert in this field. Five osteopaths stated not to know WG Sutherland at all. By sex, female and male rankings were almost identical. The male group seemed to be a little more familiar with the writings of WG Sutherland, because only three out of 31 participants from the male group chose not to know Sutherland in contrast to the female group (N=5 out of 29). This ranking represents a unanimous knowledge concerning the writings of WG Sutherland.

Question four: A total of 61,66% of the investigated osteopaths always use certain parts of cranial osteopathy (female=23; male=14). The female osteopaths seem to be somewhat more cranial because 79,31% always use CO and 20,68% often use it. In the male group only 45,16% always use CO and 48,38% often use it. Only one male osteopath never used CO in osteopathic treatment. This shows a high level of an almost unanimous practice within the female group and a low level of split decision within the male group concerning the frequency of CO applications in osteopathic treatment.

Question five: Out of N=60 osteopaths (29 female; male 31) N=20 (14 female, six male) attended less and N=15 (seven female, eight male) attended more than five postgraduate courses in CO. N=14 (four female, ten male) did not attend any course at all. N=7 osteopaths (two female, five male) attended courses where CO was only one subject among other topics referring to special diseases. N=5 (three female, two male) attended more than ten postgraduate courses in CO. This represents a high level of a non-unanimous behavior, and this also by sex .

Question six: All osteopaths (N=60) attended courses in other fields. Leading osteopathic fields were fascia techniques; N=30 osteopaths (11 female, male 19) visited courses in this field followed by courses in anatomy & physiology N=23 (seven female, male 16). Visceral techniques were the focus of N=23 (ten female, male 13) followed by embryology with a difference of 8,33% (ten female, male 13). N=12 osteopaths (six of each sex) visited MET courses; finally courses in psychology & psychiatry were attended by N=9 (four female, five male). These results show a high level of unanimous postgraduate behavior. The female group seems to be more interested in embryology and visceral techniques followed by anatomy & physiology. The male group focuses on anatomy & physiology, first followed by embryology and seems to be the least interested in visceral techniques. Courses in HVLA techniques, MET and psychology & psychiatry were less attended by males.

Question eight: In certain parts of Germany 99,82% of the osteopaths know that a *Biomechanic* and a *Biodynamic Model* exist in cranial osteopathy.

Female: YES=27 (93,10%); NO=2 (6,89%)

Male: YES=31 (100%) ; NO=0 (0%)

This shows a high level of unanimous knowledge, and this also by sex.

Question nine: In certain parts of Germany 76,01% of the osteopaths know the difference between Sutherland's *Biomechanic* and *Biodynamic Model* as part of CO. This shows a high level of an almost unanimous knowledge.

Female: YES=21 (72,41%); NO=8 (27,58%)

Male: YES=26 (83,87%); NO=5 (16,12%)

Question 10: 91,61% of the investigated osteopaths think that within Sutherland's *Biomechanic Model* the correction of dysfunctions is done by membranes or ligaments.

Female: YES=28 (96,55%); NO=1 (3,44%)

Male: YES=25 (80,64%); NO=6 (19,35%)

This represents a high level of unanimous knowledge.

Question 11: Within Sutherland's *Biodynamic Model* the correction of osteopathic dysfunctions should be done by invisible parts of the body fluids. 79,41% of the participants think that this is right.

Female: YES=22 (75,86%); NO=7 (24,13%)

Male: YES=29 (93,54%); NO=2 (6,45%)

This represents a high level of almost unanimous knowledge.

Question 12: 41,99% differentiate between both models in their daily work, 57,99% do not.

Female: YES=11 (37,93%); NO=18 (62,06%)

Male: YES=16 (51,61%); NO=15 (48,38%)

These results show a low level of a split decision concerning the YES answer and a high level of the NO answer. An evaluation by sex shows a low level of almost unanimous knowledge concerning the NO answer of the female group. The male group shows a consistent high level of a split decision.

Question 13: 62,05% explain that they do not mix both models consciously.

Female: YES=9 (31,03%); NO=20 (68,96%)

Male: YES=19 (61,29%); NO=12 (38,70%)

This describes a low level of almost unanimous opinion. The female group shows a low level of almost unanimous opinion, while the male group shows no unanimous opinion at all.

Question 14: A high level of almost unanimous opinion or knowledge as far as the unconscious mixing of both models is concerned is shown by 73,83% (YES).

Female: YES=23 (79,31%); NO=6 (20,68%)

Male: YES=15 (48,38%); NO=16 (51,61%)

The result of this question presents a high level of almost unanimous opinion referring to the unconscious mixing of both models by the participants. The female group seems to be aware of the unconscious mixing with a high level of almost unanimous opinion or knowledge. The male group is in a low level split decision in contrast to the female group and at the threshold between a high and a low level of almost unanimous opinion or knowledge.

Question 15: 80,48% do not know any Biodynamic Models which are different to WG Sutherland's. In total this represents a low level of a unanimous opinion or knowledge.

Female: YES=3 (10,34%); NO=26 (89,65%); Free text N=3 (10,34%)

Male: YES=10 (32,25%); NO=21 (67,74%); Free text N=7 (22,58%)

80,48% are represented by a low level of a unanimous opinion or knowledge. The female group shows a low level of a unanimous opinion or knowledge too; 10,34% of the osteopaths added an optional free text. The male group shows a low level of an almost unanimous opinion or knowledge, 38,70% added an optional free text.

Qualitative Evaluation of Questions 15 Optional Free Text and the Free Text Area at the End of the Form with Criticism and Suggestions:

Question 15:

16,66% of the osteopaths added free text next to semi closed question 15. Only two optional free texts out of ten could be accepted because of their quality. The other eight osteopaths

did not give any answers to the question. The arguments and facts filled in by the osteopaths were not really new and most of the time they were presented without argumentation and explanations. This supported the common fact that WG Sutherland's *Biodynamic Model* is unanimously current without a clear perspective for the practical use in certain parts of Germany.

Optional Free Text Area for Criticism or Suggestions at the End of the Form:

Only N=6 (10%) osteopaths added criticism or suggestions. Out of six four might be eliminated because of bad quality. Criticism and suggestions which corresponded to question seven initiated to eliminate that question from the statistical evaluation.

One criticism mentioned the style of writing insofar as this osteopath emphasized that Sutherland talked about CO, not about CSO. Here the author failed because of minor inconsistency in preparing the questionnaire.

7 THE RESULTS

This chapter summarizes all results from the previous chapters. At the end of this thesis, specifically in chapter 7.2 a different approach to osteopathy is offered for discussion, finishing with personal reflections and suggestions concerning for the future.

7.1 Summary and Conclusions

RESULTS FROM THE THEORETICAL PART

Cranial Osteopathy started in 1900 when WG Sutherland compared the temporal bone with the gills of a fish. He used AT Stills's principles of osteopathy to conclude that this design might represent function and a type of breathing mechanism. Cranial Osteopathy set out with a *Biomechanic Model* according to Still's principles. Sutherland's *Biomechanic Model* included: the fluctuation of the cerebrospinal fluid, the reciprocal tension membranes, the motility of the neural tube, the articular mobility of the cranial bones and the involuntary movement of the sacrum between the ilia, of which the latter is also part of his *Biodynamic Model*. The only difference between the two is Sutherland's late addition of *The Potency of the Tide*, making the one model biodynamical. But Sutherland never explicitly used the term *Biodynamic*. Although the author has been aware of the fact that Sutherland never explicitly used the term, he nonetheless decided to use the expression in this thesis when ever a reference to *the Potency of the Tide* was made; in addition to this decision it also seems that the term is being used in certain parts of Germany as well.

One element of Sutherland's *Biomechanic Model* is that the correction of dysfunctions is done by ligaments and membranes. Within his *Biodynamic Model* the correction of dysfunctions should be done by something intelligent and invisible inside body fluids which has *the Potency* to restore health.

The characters of the body fluids doing this are described as *The Potency of the Tide* and gaining their power from *The Breath of Life* out of Genesis. *The Potency of the Tide* and *The Breath of Life* within the patient's body should be palpable as a „tide within a tide“ inside the body fluids with a frequency of eight to 12 impulses per minute. This is what Sutherland called a Primary Respiratory Mechanism (PRM) or the Cranial Rhythmic Impulse (CRI). Sutherland himself emphasized the visualization of anatomy and physiology and approached the patient's body despite apparent problems which were fixed in mind and/or soul i.e. postnatal depressions or psychosis.

The literal noun *Biodynamic* is directly related to Rudolf Steiner, Carl Gustav Jung, Wilhelm Reich and Gerda Boyesen, but no reference to osteopathy was found. The philosophical background of these four individuals is close to osteopathy. But, these four persons primarily approached the *being of mind* and not the *material body*. Giving the historical situation Still and Sutherland could have known basic articles by Steiner and Jung, but only Sutherland could have read more about Reich and Boyesen. There is now evidence whether Sutherland knew Reich and Boyesen or not and whether he was influenced by them. But if we have a closer look at the terms we find that the English „*Biodynami-c*“ is related to Rudolf Steiner and Carl Gustav Jung, and the German „*Biodynami-k*“ to Wilhelm Reich and Gerda Boyesen. The association to Reich and Boyesen seems to be a new one. Osteopathic primary treatment of spirit and/or soul like Steiner, Jung, Reich and Boyesen could mean a step out of osteopathy into fields of different professions, instead of an obvious manual approach to the patients' body. This is important because the patient should get an osteopathic treatment and not something that just looks like it.

RESULTS FROM THE PRACTICAL PART

The original project - evaluation and survey of a North South gradient by zip code areas and sex - had to be abandoned. It was not possible because the comparison of different groups depends on their comparability. The study failed in this respect because participation in zip code area two was too small to draw a comparison with zip code areas three and seven. The evaluation of results was also complicated because question seven had to be eliminated completely. Misunderstanding in content resulted in 48,88% wrong answers/calculations. The digital form had not made any provisions for a situation like this, – for example by hidden features, because the pretest had not revealed any necessity. N=28 osteopaths answered

with wrong calculations which either did not add up to 100% or went above 100% (N=14 from each sex).

The other results from the empirical part were presented in five Big Blocks, because this was the system of construction and configuration behind the questionnaire (co.chap. 6.1.4). The results are presented by a decreasing classification in per cent and also literally.

- Unanimous opinion or knowledge (80-100%)
(high level = 90-100%; low level 80-90%)
- Almost unanimous opinion or knowledge (60-80%)
(high level = 70-80%; low level 60-70%)
- Splitted decision (40-60%)
(high level = 50-60%; low level 40-50%)
- No unanimous opinion or knowledge (0-40%)

In addition, in order to visualize and compare the results more easily a ranking system was used whenever more than one answer was possible. The highest ranking (=1) received the highest value in per cent, the lowest ranking (=8) received the smallest value in per cent.

The Quantitative Evaluation of the Results from the Questionnaire (Big Block One to Five)

Big Block One: Common Personal Information

Investigated were N(g)=274 osteopaths from certain parts of Germany. N=71 questionnaires were returned, but had to be reduced by N=11 drop outs. N(T)=60 were further investigated by a survey and evaluation. This represented a participation of 25,90% and 4,01% drop outs (DO). The participation rate was 21,89% in total (29 female, 31 male). The average age (N=60) was 40,75 years (25 to 55 years) and the investigated osteopaths represented 5,63 years (one to 17 years) of postgraduate osteopathic experience. The female osteopaths had an average age of 39,79 years and 4,65 years (one to 11 years) of postgraduate osteopathic experience, whereas the male group showed an average age of 41,64 years and showed an experience of 6,54 years (two to 17 years) of osteopathic experience. Thus, the 29 female osteopaths were 1,85 years younger than their male colleagues, whereas the 31 male osteopaths had additional 1,89 years of postgraduate experience. The largest group (N=28) of the investigated osteopaths graduated from College Sutherland Germany; 32 osteopaths attended 11 other institutions (ten SKOM, five IFAO, five IAO, four Still Academy, two COE, one OSD, one ESO, one OAD, one DOK, one OAM, one VIO).

The study group represented different degrees and professions: One MD (Dr.med.), one M.Sc.Ost., one B.Sc.Ost., four DO®, 38 (German) Heilpraktiker, 38 physical therapists, one PE instructor, three masseurs & med. Bademeister, one masseur, one gymnastic teacher.

Only one male osteopath needed 15 to 30 minutes to fill in the questionnaire, all other osteopaths needed one to 15 minutes.

Big Block Two: Basics from Sutherland and Still (Questions One to Three and Eight to 11)

Recalling Sutherland's and Still's basic teachings the study group showed a high level of a unanimous opinion or knowledge both in per cent and by ranking. The opinions or knowledge concerning the content and differences between Sutherland's *Biomechanic* and *Biodynamic Model* were found in the area between a high level of a unanimous and a high level of an almost unanimous opinion or knowledge, this statement also holds true for an analysis by sex.

Big Block Three: Postgraduate Behavior (Questions Four to Six)

The female group showed a high level and the male group showed a low level of a splitted decision in their frequencies of cranial approaches. Only one participant stated that he had never used a cranial approach. Postgraduate cranial courses were attended by a high level of no unanimous behavior. The study group showed a high level of a unanimous behavior insofar as they were less interested in postgraduate courses in the fields of HVLA techniques, MET and psychology & psychiatry, both in ranking and by sex.

Big Block Four: Analysis of Practical Approach (Questions 12-15)

The female participants showed an almost unanimous behavior of the practical use of both models. In the male group there was no unanimous behavior as far as the practical use was concerned. The women showed a low level of a unanimous opinion, whereas the men showed a low level of an almost unanimous opinion both referring to other biodynamic models, different from Sutherland's.

Evaluation of Question 15:

16,66% of the osteopaths added a free text to semi closed question 15. Only two free texts out of ten could be accepted because of their quality. The eight others contained no answers to the question. The arguments and facts filled in were not really new and most of them were presented without arguments and explanations. This supports the thesis that WG Sutherland's *Biodynamic Model* is unanimously well known in certain parts of Germany without a clear perspective on the practical handling. This is supported by the statements of two participants who believe that an osteopathic approach is not necessarily and consistently one to the body of the patient. This is not in tune with Sutherland's and Still's principles and could mean to leave the field of osteopathy. If you do not step into the body of the patient you cannot visualize health within the body's anatomy and physiology. A borderline to leave

osteopathy was detected in the head of the practitioner despite of a manual approach to patient's body. This strategy seemed to be similar to the approaches of Steiner, Jung, Reich, Boyesen and other different disciplines whose principles are close to the ones of osteopathy.

Big Block Five: Criticism and Suggestions

N=6 (10%) osteopaths added criticism or suggestions. Out of these six four had to be eliminated because of their bad quality. Criticism and suggestions concerning question seven resulted in its elimination from statistical evaluation in addition to the 48% with wrong calculations. One critic mentioned the style of writing by pointing out that Sutherland talked about CO and not about CSO. Here the author failed because of minor inconsistency in the preparation of the questionnaire.

Conclusion: The Results in Relation to the Hypothesis

In contrast to the hypothesis it turned out that there is a unanimous opinion on WG Sutherland's *Biodynamic Model* among osteopaths in certain parts of Germany. This outcome does not mean that all applied approaches are in line with Still's and Sutherland's principles. The empirical part gave proof of the opposite. This is always the case when a patient's body is not the main objective or the center of the focus. The decision whether a patient is approached according to Still's and Sutherland's principles or in a different way is to be found in the practitioner's head. The invisible and individual decision what an osteopath approaches in the first place - the body or something outside the body - characterizes whether the approach is in line with Still's and Sutherland's principles.

7.2 Critical Reflections, Points to be Discussed Further, Personal Experiences and Future Perspectives

In quantitative social research it is useful but also dangerous to use a digital questionnaire. If the questions are not designed profoundly and well formulated one risks to lose participants because they might misunderstand the questions. There is also a potential loss of participants by ignoring the careful implementation of necessary digital features. Thus thorough preparation is a precondition for the success of any questionnaire.

On a personal level both new answers and more questions developed some of which resulted in a deeper understanding of the principles of osteopathy in general and specifically of Still and Sutherland. This additional gain was mainly influenced by the work on social psychological principles and linguistics which disclosed new insights into Still's and Sutherland's work. Moreover, new fields of interests could be connected to osteopathy. The

work with the field of social psychology also permitted a better insight into the politics of the osteopathic profession.

Sutherland's *Biomechanic* and *Biodynamic Model* rest on Still's principles of osteopathy. A borderline to leave the field of osteopathy by using interdisciplinary methods was presented in this thesis. There is an implicit tendency for osteopaths to get lost in methods which do not focus on the body itself. Because they now know about the existence of the borderline, each osteopath automatically assumes more responsibility. Because nowhere in the literature were any hints that either osteopathy or Still and Sutherland were analyzed from this perspective. I would like to have this approach discussed among osteopaths; in my opinion this approach has an important impact on the process of forming an opinion and thus on the social identities of individuals as well as on groups within the profession's daily practice. If this thesis was supplemented by further studies two different qualitative social research methods might be considered: first, social psychological and linguistic research on additional students of Still and Sutherland; second, an interview study on the philosophy of osteopathy in which more osteopathic experts should participate. The following individuals

(N=30) were considered spontaneously (*in alphabetical order*):

R. Becker Jr., B. Chickley, A. Chila, E. Cloet, T. Esser, W. Gehrmann, M. Giradin, N. Handoll, C. Hartmann, J. Jealous, JP. Hoepfner, P. Klein, R. Lee, T. Liem, HI. Magoun Jr., J. and R. McGovern, N. Mitha, E. Moeckel, R. Molinari, S. Paoletti, M. Patterson, M. Poettner, T. Shaver, F. Sills, J. Stark, C. Towbridge, P. van den Heede, A. Wales, P. Wüthrl.

In the end I am content with all of the results of the thesis because I believe and anticipate that they will influence osteopathic philosophy and all practical work in a positive way.

APPENDIX

A Preliminary Outline – An Alternative Approach to Still, Sutherland and Osteopathy

The starting point for the research of this thesis set out with the basic works on and by WG Sutherland, AT Still and the relationship of the two. It was intended to present the background for Sutherland's models and the evidence that Sutherland had always followed Still's osteopathic principles. Because the research was done chronologically reverse it only turned out later that neither Still nor Sutherland had ever used the term *Biodynamic*. In contrast to this we face common language among osteopaths who speak of Sutherland's *Biomechanic* and *Biodynamic Models*. Being confronted with this contradiction the motivation for this thesis was born.

The literature which had been studied before was reread and reconsidered. Both, Still and Sutherland wrote and taught new thinking and concepts, thus influencing the opinion and the knowledge of their readers and students. What were Still's and Sutherland's stylistic devices and which impact did the latter have on osteopaths in general? The questions in turn resulted into questions from a social psychological point of view. It is interesting to gain insights into why and how knowledge is communicated and how specific scientific terms are used, thereby creating opinions and concepts. But it is even more interesting because this thesis argued that there was no unanimous opinion on Sutherland's *Biodynamic Model*, thus spreading the opinion that there were minimum two schools of osteopaths. From the empirical part of this thesis we have learnt that within the profession there are different osteopathic approaches to the patient despite of similar theoretical backgrounds. Thus, if it is not the primary sources which generate the differences, we should reconsider teachings, perception and their consequences. The results of these reconsiderations have to be compared to osteopathical practice.

To gain this end it is useful to review the principles of illustration and marketing (Zick 2008, p.4). An investigation on how these principles might influence interpretation, opinion and knowledge of the individuals as well as of social groups (i.e: patient, osteopaths and osteopathy in general) might give an insight into why and how the contradictory results from the empirical part of this thesis came about. It might be revealing for osteopaths to discuss this style of approach, because nowhere in the literature were any hints that either osteopathy or Still and Sutherland were analyzed from this perspective.

The points which are subject to discussion in this chapter fall into the category of social facts. To gain a deeper insight into communication processes it seems adequate to apply social psychological and semantic methods; this is a first attempt with relation to osteopathy.

More in detail social psychology is both, part of psychology and of the social sciences. Social psychology belongs to the social sciences, exploring the influence that social groups have on the individual; as a scientific discipline it asks for the meaning that this relationship (group dynamics, prejudices, norms, perception) exerts on the societal order (Schubert, Klein 2006, www.bpb.de).⁸⁸ Osteopaths are members of a social group consisting of many individuals and their characteristics. In order to improve the understanding the current situation of cranial osteopathy a social psychological approach is useful. This perspective is helpful to underline the motivation, history, meaning and the use of individual osteopathic terminology. By using social psychological perspectives as instruments to approach osteopathy it will become evident how and why Still's and Sutherland's writings almost automatically caused contradictions and misunderstandings. This affected the past and still affects present and future generations of students.

Because the contradictions and misunderstandings have had such an enormous impact on osteopathy in general and on WG Sutherland's *Biodynamic Model* in particular their description and clarification is the focus of this chapter (co.chap. 1, 2). The social psychological approach mentioned above has to be kept in mind, because it has an impact on the identities or characters of social groups. In this chapter the influence of a social psychological approach on osteopathic identities or groups is investigated; a group of osteopaths from certain parts of Germany is asked for their opinion on Sutherland's *Biodynamic Model*. Basically two questions were asked: How many osteopaths have an opinion at all and how do they understand WG Sutherland's *Biodynamic Model*? The situation is more complicated because not only osteopaths use the term „Biodynamic“, but also individuals of other professions, such as Rudolf Steiner, Carl Gustav Jung, Wilhelm Reich and Gerda Boyesen. Their philosophies are to some extent close to osteopathy, but they are not identical (co.chap. 5.2). Because of their affinity an investigation of specific osteopathic terms and their meanings is part of this chapter, too. For example, Steiner, Jung, Reich and Boyesen seem to use *Biodynamic* to label a scientific field, thereby using „Biodynamic“ as a noun. Today osteopathy seems to use the term *Biodynamic* as a scientific field as well or as a term expressing function. In contrast to Steiner, Jung, Reich and Boyesen and contemporary osteopaths, Sutherland used *Transmutation* to show biodynamic function or biodynamic character; he did not use the term *Biodynamic*. “*The great battery, the Tide, functions through that region. Realize that the „highest known element“ is transmuted to this centers. The cranial nerve nuclei also receive the transmutation from that „highest known element“, from the battery that contains the „juice“.*“ (Sutherland 1990, p.22)⁸⁹ Hereby he wanted to picture the workings of the *Potency* which is routed in the *The Breath of Life* which, again comes out of the Genesis inside cerebrospinal fluid (Sutherland 2004, p. 1-28). Both, Still and Sutherland never used the term *Biodynamic* in their literature at all. In the field

of osteopathy especially Still and Sutherland as founders were in the situation to create models or symbols (pictures, comparisons, metaphors, etc.) for teachings, because they could not rely on any existing terminology. Nonetheless, a language is necessary to transfer meaning and perspectives in absolute terms. Still and his principles are included in this study because he was Sutherland's teacher and their relationship was emphasized by Sutherland himself (Sutherland 2004, p. 1-200). Still's and Sutherland's individual understanding and interpretation can be seen as a starting point for osteopathic thinking and different osteopathic opinions of individual and social identities.

These social psychological circumstances in general forced to pay attention to the principles of social identities. In addition, the principles of illustration and the lasting effects of teaching are present in osteopathy. For example the term *Biodynamic* was not only used by osteopaths (co.chap. 5.2). The osteopathic meanings have to be considered in detail to get a better understanding of individual social identities within the osteopathic profession. For example, to some osteopaths *Biodynamic* is just a word describing function or character; it is used like an adjective. For other osteopaths it seems to describe a separate scientific field, a model or osteopathic philosophy; it is used like a symbolic noun. This gives a first impression of how language is used and how it can influence people, depending on whether an additional context is presented. This will be discussed in detail later.

For the purpose of clarifying opinions and of defining social identities when referring to osteopathy Tajfel's and Turner's (1979, 1986) social psychological theory of inter group processes seems to be adequate for a comparison with the inside/outside processes of osteopathy. According to Tajfel and Turner a process of differentiation between groups is characterized by conflicts as well as by experience of any communication in teachings. In their studies Tajfel emphasized among other topics the distinction between *personal* and *social identities*. Any osteopath represents a personal identity herself/himself and is at the same time also a member of different social identities. Tajfel and Turner came up with three basic assumptions which are fundamental principles of all *personal identities* (Tajfel et Turner 1986, www.sozpsy.sowi.uni-mannheim.de)⁹⁰ and thus also present in osteopathy:

1. Individuals try to get and increase a positive self assessment.
2. Part of this self assessment is the social identity which is a combination of multiple memberships in different social group and the assessments of these memberships.
3. The assessment of the membership depends on an individual comparison of different relevant groups.

The influence of these three basic assumptions on anybody might not be obvious, but it works in an unconscious way. Transferring the fundamental principles of all personal identities to osteopathy we learn that these principles influence the unconsciousness of students' and teachers' behavior. Because of the fact that individuals try to get a positive self

assessment or a positive social identity and moreover try to increase assessment and identity, both conflict and progress will occur. Each student of osteopathy gets his/her first osteopathic social identity through elementary osteopathic teachings. By applying the principles of personal identities they try to defend their position or knowledge. In the case of diverging language or content conflicts are inevitable.

Recalling the above said, taking the fundamental principles of personal identities into consideration it can be easily imagined how conflicts were caused by Still and Sutherland and kept alive until today. The absence of a common osteopathic terminology results into various personal and social identities. Each teacher creates single personal identities of his students and also one common social identity for his subject. Thus, different teachers create different personal and social identities for their subject. Now we can see that personal identities are influenced by the principles of *social identities* in which basic assumptions lead to theoretical principles as described by Zick(2008, p.3):

1. Individuals try to reach a positive identity which is completely defined by a membership in a group.
2. A positive social identity depends on an advantageous comparison of the in group and the out group.
3. A non- sufficient social identity tries to step out of the own group into another group which is viewed more positive or tries to establish the original group in a more positive way. The pressure to view the own group positively by an in group-out group-comparison creates barriers between the groups (Zick 2008, p.3).⁹¹

Because the ways of creating personal and social identities are influenced by such principles as described above it is extremely important that content and language of teachings are identical on each subject. If this is not the case the results will be personal and social conflicts which in turn are necessary to further develop osteopathy. Conflicts or different individual opinions and knowledge are the basis of any discussion and thereby also of progress. Constructive criticism and fair comments give the chance to reconsider, to compare and to increase personal opinion and knowledge. When different opinions are present, as seen in the empirical part of this thesis, conflicts and/or discussions are essential to get into a further development of topics and subjects. The individual behavior in these situations rests on conscious and unconscious psychological processes which have to be further investigated. These processes are based on a subjective perception and influence objective results in an obstructive way at the same time. Accordingly Zick described four unconscious psychological processes responsible for social conflicts (Zick 2008, p.4).⁹²

1. Social categorization
2. Social comparison
3. Identification with the ingroup

4. Distinction from the outgroup

In order to avoid the creation of different personal and social identities referring to one single subject in osteopathic basic education Gaertner (1993) suggested building one common higher identity. This means that members of different groups form a new group (Gaertner 1993, 2000, p.2).⁹³ In order to develop a higher social identity among osteopaths it is necessary once again to review osteopathic teachings and writings. Today's osteopaths cannot get first hand information from their founders any more. It is important that the not obvious social psychological effects as quoted by Tajfel, Turner and Zick are taken into consideration by osteopaths (Tajfel et Turner 1979, 1986, p. sozpsy.sowi.uni-mannheim.de; Zick 2008, p.3). Obvious social psychological effects, their influences and circumstances have mainly been investigated and are used in professional marketing for example (www.ddesignmedia.de 2008).

Marketing is used to provide osteopathic philosophies, theories and techniques and thereby used to treat the human body. We should keep in mind that these processes are always involved with different priorities though.

Back to the processes of social and personal identities we might also think about the principles of illustration. They are very important because there is a great variety of styles and power to alter possible understanding.

The principle of illustration is one of the oldest principles at all and present in osteopathy, too. Illustration is a basic precondition to increase knowledge by stimulating the senses. For example, to teach anatomy and function, Sutherland wrote about „A Tour of the Minnow“, thereby visualizing the human body for students: *„In this tour of the living brain we are like a little minnow on a sightseeing tour. We are taking a swim in the cerebrospinal fluid with a little minnow who can crawl into cervices such as the entrance of the fourth ventricle from the subarachnoid space* (Sutherland 1990, p.227).⁹⁴

Aristotles, for example, regarded human knowledge as a result of sensual experience. To Pestalozzi, illustration was the fundamental basis of all knowledge. Anthropologically speaking illustration builds up own opinions and the competence to act correctly referring to Rudolf Steiner (www.ddesignmedia.de 2008). Thereby the principles of illustration have exercised a strong influence on social and personal identities. Illustration as a combination of listening and viewing is highly effective in teachings (www.ddesignmedia.de 2008).

Illustration, i.e. describing in words is basic to teaching and should be kept in mind whenever teachers confront students with new topics, specifically when these topics demand a special language. If language is the media by which illustrations are communicated, instruments like comparisons, models or metaphors draw verbal pictures, thus illustrating; paralinguistical means like articulation, speed of talking, modified volume of the voice or attitudes like irony or sarcasm modulate the verbally drawn picture (www.ddesignmedia.de 2008). By these

means individual senses and reception can be modified as well as existing values of teachings. Another way of illustration uses concrete models with the purpose to demonstrate graphically. A model is a miniature reality which can be viewed more easily, but students are not always capable to grasp the most important relations because they concentrate on less important things too intensely or they might simply understand the model through a different individual filter (www.ddesignmedia.de 2008). Also symbols and contexts can be used to illustrate items, but especially when the interrelationships of things are in the focus of interest (www.ddesignmedia.de 2008). „*I have walked along a quiet shore with lots of seaweed floating out in the water. I have watched this seaweed moving rhythmic patterns with the groundswell, with the tide. See the stillness at the center and the spiral movement. For a large pattern, see the hurricane, see the potency in the eye of the hurricane, not the destruction around the outside. See the stillness in the center and the spiral movement. Like the pilot on the ferry that crosses San Francisco Bay, you can get on the balance point and let the potency carry you along.*“ (Sutherland 1990, p.174).⁹⁵ X

The general ways of illustration were arranged empirically and hierarchically by Dale (2008, p.4); the picture he used was a cone:⁹⁶

1. Learning by abstractions (symbols, schemes)
2. Learning by observation (pictures, models, preparations)
3. Learning by doing (direct observation, originality)

Going back to the basics of illustration as far as cranial osteopathy is concerned Still and Sutherland acted differently by using different wording and models, but with the intention to show the same (co.chap. 5.1). Both used all three types mentioned above to support learning and understanding processes (Still AT 2005, Sutherland WG 2004). At this point we should at least consider a minimum of two different social identities, because we have to deal with two different languages coming from two different osteopaths, Still and Sutherland.

Recalling Gaertner (1993, 2000, p.2) and his suggestion to create a higher identity as a possible solution to mediate between various different opinions, one possible finding of this study could be: neither call it *biomechanic* nor call it *biodynamic*, just call it osteopathy.

This fact should be remembered when reviewing Still, Sutherland and others.

Another social psychological aspect has to be kept in mind, namely the fact that Still and Sutherland had to face the necessity to give structure to their teachings and hereby to social identities as well. Both were interested in the durability of their work, which they also proved by founding Kirkesville School of Osteopathy in 1894 by Still (Still 2005, p.I-66)⁹⁷ and the Sutherland Cranial Teaching Foundation (SCTF) in 1953 by Sutherland (Wales 1990,

X For a description of the ferry's operation, see: Sutherland, W.G., Teachings in the Science of Osteopathy, p.32, Fort Worth: 1990, Rudra Press.

p.295)⁹⁸ or Sutherland's book „Teachings in Science of Osteopathy“ (Rudra Press 1990)⁹⁹. They might have had economic aspects in mind too, because they used the principles of the sustainability of marketing in their teachings and they also did work to keep the profession alive, consciously and / or unconsciously.

The principles of the sustainability of marketing rest on three pillars - economy, ecology and social behavior. According to the definition of sustainability the whole process of marketing should be designed along the lines of social and ecological criteria (Lang 2008, p.1-4).¹⁰⁰

Osteopathic teachings can also be seen as a product to be marketed. Exactly for this reason the sustainability of marketing influences personal and social identities and personal styles of illustration. Moreover it is correct to say that these principles and their social psychological effects are part of any teaching. Experts in other social sciences may further investigate these aspects.

Individual Osteopathic Terms

In line with the above mentioned social psychological principles research should also include an analysis of terms and their contextual use, because terms by themselves and the same terms in (other) contexts can have different meanings. Their meanings depend on whether they are used as a symbol, a metaphor or a picture. In the following the term „Biodynamic“ is used to demonstrate its multiple meanings as a single term. Moreover, more than one meaning of the term „*Biodynamic*“ was detected depending on its context: different contents, meanings and relations of the English term *Biodynamic*c and the German *Biodynamik*k were discovered. Using online encyclopedia these are the findings (www.duden.de/fremdwörter):

to distinguish the noun form:

English: B-(b)iodynami-c

German: *Biodynami-k*

plural (www.dict.cc 2008):¹⁰¹

English: B-(b)iodynami-cs

German: *Biodynami-ken*

to distinguish the adjectives:

English: biodynami-c

German: *biodynami-sch*

The plural meaning of *Biodynamic* can mean different things. One meaning is to describe more than one biodynamic action. Another is to show a connection to a biodynamic field itself and arouse some sort of sensitivity for the character of a symbol. The English version of the noun *Biodynamic* is directly related to the use of the term by Rudolf Steiner and Carl Gustav Jung and they both do not use it in contexts related to osteopathy (co.chap. 5.2). Taking this into consideration we are almost forced to think about the character of a symbol, because linguistically the word *Biodynamic* does not really exist as shown above; there is an analogy to how Sutherland used his pictures (co.chap. 5.1).

The different meanings can only be identified contextually. The German literal version is directly related to Wilhelm Reich and Gerda Boyesen (co.chap. 5.2). Both are somehow in tune with Still's global view of *Trinity*, but their focus was not on Still's *Material Body* (co.chap. 5.1, 5.2). Still and Sutherland continuously approached the patient's body, always with an awareness of mind and soul. Both visualized and palpated primarily a patient's anatomy and physiology. Clearly, they acted mentally and manually on the patients' bodies by using the same principles (co.chap. 5.1). Only with a larger context the differences between Still and Sutherland in contrast to Steiner, Jung, Reich and Boyesen can become evident, and only the context reveals the symbolic meaning of the character of a noun, i.e. *Biodynamic*. Another possibility is to create an adjective in order to emphasize the function itself, either standing alone or in combination with a noun: "*The great battery, the Tide, functions through that region. Realize that the „highest known element“ is transmuted^{XI} to this centers. The cranial nerve nuclei also receive the transmutation^{XII} from that „highest known element*^{XIII}*“, from the battery that contains the „juice“.*" (Sutherland 2004, p.1-33).

In German a clear distinction can be made by adding the ending „sch“. In English we cannot always differentiate adjectives from nouns that clearly, neither from a grammatical nor from an orthographical point of view. It must be remembered though that the original osteopathic texts were written in English, thus we have to review German translations critically and comparatively, specifically when considering the contexts. As a result from the above shown one can easily realize that the context is of utmost importance in historical osteopathic literature. Referring to the previous chapter and getting a deeper insight into osteopathical work it is necessary to combine the social psychological facts with knowledge about the individuals and how they used certain tools to create or emphasize context: individual terms, repetitions, pictures, metaphores, models consisting of smaller or larger units of text. It is correct for osteopathy (osteopathic terminology) that adjectives together with nouns form entities and have to be interpreted in smaller or larger contextual units. The meaning of the noun or the meaning of the symbol created by the noun shows the meaning of the adjective which belongs to the noun. This represents a larger context of more than one unit in linguistics. Taking the term *Biodynamic* as used by Franklyn Sills and James Jealous as an example we face a different situation. The contexts and contents shown by Jealous and Sills are similar to those shown by Still and Sutherland, but the title of Sill's book „Craniosacral Biodynamics“ shows that he uses *Biodynamic* with a plural „s“ (Sills 2001, p.Title). Thus, when dealing with Sills we have to consider all possible relations and meanings he might have chosen, because he did not explain whether he used the term as a noun or as a

^{XI} The adjective itself.

^{XII} The noun itself.

^{XIII} The adjective in combination with a noun (noun unit).

symbol. On the one hand Sills increased the range of meanings for *Biodynamic* by using its plural form – *Biodynamics*, and on the other hand he limited the range by placing it into a specific context - *craniosacral*. James Jealous is also not consistent in his use of the term *Biodynamic*; his postgraduate courses have the title „Biodynamic Osteopathy“, but on his homepage he also writes about „Biodynamics series“, which regarded contextually seems not to be a separate field (Jealous 2008, www.jamesjealous.com).¹⁰²

Semantics: a Linguistic Feature

In order to extract more from osteopathic texts research was also conducted on how Still and Sutherland illustrated and emphasized contexts. Their individual terms and their specific use were already seen. This chapter focuses on principles of contexts, defined as smaller and larger units of text in general and whether there are regularities and fixed connections in the use or not.

In order to broaden the scope of meanings linguistic features have to be investigated. The sense of a single term and / or its context depends on whether it has the form of a noun and / or an adjective. Now we are in the midst of the field of semantics. Semantics is part of linguistics and describes the study of the meaning in the process of communication (Lang 2008, p.7).¹⁰³ These facts necessarily have to be kept in mind because they can influence the meaning. The word *Semantic* originates from Greek (*semantikos*), meaning "significant"; splitting it up etymologically it goes back to (*semaino*), meaning "to signify to indicate" (www.duden.de).¹⁰⁴ Linguistics is the science which deals with the interpretation of signs when used by agents or communities (www.duden.de), whereas within osteopathy particular circumstances and contexts have to be analyzed. Semanticists have different opinions on what creates the meaning of an expression. For example, in the sentence, "*Sutherland used Still's principles*", the term *Still's principles* can be meant literally; it can also refer to his principles as a concept and *Sutherland used* can mean that Sutherland applied Still's principles. Another example was found in the free texts of the participants of the questionnaire: one participant understood *Biodynamic* as a number of osteopathic actions and another used it as a term for a separate osteopathic field (co.chap. 6). The traditional semantical meaning can be close but might not automatically be the same. We do not know whether Still and Sutherland used their terms consciously or whether they differentiated between literal or contextual meaning. In the field of linguistics, semantics is the subfield which emphasizes the study of meaning, expressed as words (at all levels), sentences or larger units of texts. Meanings are not complete without certain elements of context (Polzin-Hausmann 2002, p.268-272). For example, taken as a single word *Biodynamic* is not defined by osteopaths, but its meaning in a phrase such as *biodynamic work* is similar to how it is used frequently and can be called compositional. However, the

actions implied in such phrases like "biodynamic work", "biodynamic principles", "biodynamic connection", "biodynamic philosophy" or „*Biodynamics*“ are different. The actions themselves cannot be called "*biodynamic*"; they only have an expressive meaning when they are used in comparison with other phrases like *the Biodynamic Model* of WG Sutherland. In osteopathic literature no explanation can be found whether the term *Biodynamic* is used as a noun or as an adjective. In Sutherland's writings a citation can be found where he gave a clue on how to read and understand what he meant: "*In doing so, we are directing not only a potency that has intelligence within it. A body of fluid that has the Breath of Life. That has something invisible, not only of potency but an Intelligence spelled with a capital „I“.* In that potency of the fluctuation you have an unerring intracranial and intraspinal force with the tendency toward the normal as the motive power for the reduction of the lesions." (Sutherland 1967, p.142)¹⁰⁵ Here the noun „Intelligence“ is related to *the Potency of the Tide* and by emphasizing its importance by the capital „I“ Sutherland described the character of the potency in a special way. He could have used the adjective „intelligent“, which he consciously chose not. At some other points Sutherland also used the interweaving of two texts (Sutherland 1998, p.260, 261; co.chap. 5.1) to guide us towards the “between the lines”; by using semantical and linguistical features as a conscious means he pointed at something (Sutherland 2004, p.II-229-231).¹⁰⁶ ^{XIV} Maybe Still and Sutherland created their own pictures and symbols for the osteopathic field because they wanted their students to understand more easily. More specifically they used letters, words and models as symbols containing the principles of illustration.

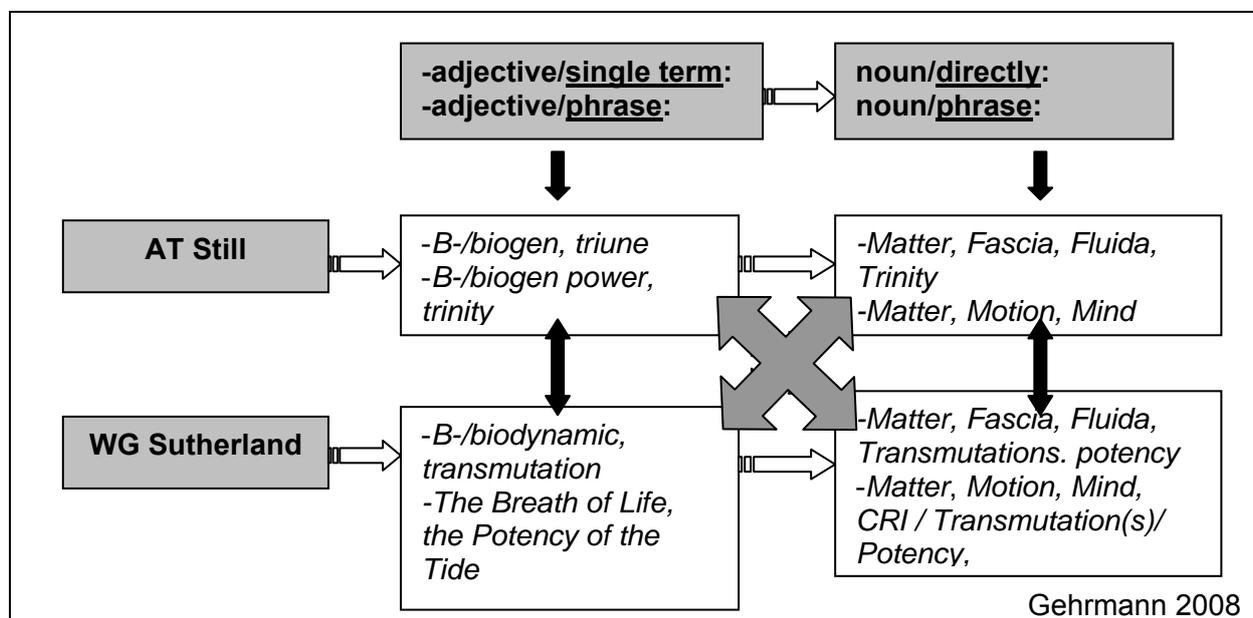
In German it is easier to differentiate between nouns and adjectives than in English, simply because nouns are capitalized. The relations are nonetheless blurred because there are many syntactical possibilities of structuring sentences (Polzin-Hausmann 2002, p.270). When *biodynamic* is used as an adjective it does not automatically mean that there is a relation to Steiner, Jung, Reich and Boyesen (co.chap. 5.2). *Biodynamic* could be understood as a created model, symbol or metaphor. Or it could be used to visualize dynamics in living tissues or organisms by considering a combination of the terms „bio“ and „dynamic“. This case describes the use of the two terms, *bio* and *dynamic*, but does not automatically mean a relation to *Biodynamic* when used as a noun, as used in Franklyn Sill's book title „Craniosacral Biodynamics“ (Berkeley, California, USA 2001). In the title of the book *biodynamics* is obviously used as a noun because of the plural „s“ and by the context which is created by the adjective „craniosacral“. This underlines the necessity to approach the term *Biodynamic* both linguistically and social psychologically, as a symbol, metaphor or picture, because only then it will become apparent that it is the missing „s“ which makes the

^{XIV} Addition: This method of linking was also used in constructing the questionnaire of this thesis (co.chap. 6.2).

difference. The inconsistency of osteopathic terminology becomes even more obvious if we look beyond Sill's book title. Although *Biodynamics* is part of the title he did not follow Sutherland's factors of the PRM; he neglected *The Potency of the Tide* (Sills 2001, p. 16).¹⁰⁷ By taking out a complete term which was linked to Sutherland's *Breath of Life* it seemed that Sills lost contact to Sutherland. But *craniosacral* does not automatically refer to the bones (skull and os sacrum). *Cranio* could be a link to mind and spirit and *sacral* to the Christian religion and *the breath of life*. With an interpretation like this Sills would be back in line with Sutherland's factors of the PRM despite of the title of his books and the neglect of *the potency of the tide*.

Giving a graphical impression on Still's and Sutherland's use of symbols according to linguistics the following chart was put together:

Picture 35: Listing of Still's and Sutherland's Linguistic Symbols



In addition to the graphical demonstration the following terms can also be seen as a symbol or picture increasing meaning and osteopathic contexts or are directly related to Still's and Sutherland's writings:

Ability, Architect, Battery, Biogen, biogen, Complexity, CRI, Dynamics (Biodynamics), Electricity, Force, Function(s), Hurricane, Intelligence, Invisibility, Koaxial cable, (fluidic)-Light, Ocean, parallel, Potency, Power, PRM, Tide(s), Transmutation(s), Trinity, triune, Waves.

In this whole chapter it was tried to apply social psychological and semantic methods on osteopathy. It was thought to exemplify methodological structure for more qualitative research in this direction. It is open for discussion now whether another investigation in the social psychological field should be conducted or whether another quantitative social study should be tried, thereby applying the method which was presented in this thesis.

Abbreviations in Alphabetical Order

A

App.	Appendix
Av.	Average (mathematical in per cent / one to 100%)

B

BLT	Balanced Ligamentous Tension
BMT	Balanced Membranous Tension

C

CO	Cranial Osteopathy
(co. chap. X)	(compare chapter X)
COE	Europäisches Colleg für Osteopathie
CSO	Cranio Sacral Osteopathy

D

DO	Drop outs
DOK	Deutsches Osteopathie Kolleg

E

ESO	European School for Osteopathy (GB)
-----	-------------------------------------

F

(f.ex.)	(For example)
---------	---------------

H

HPG	Official Law of Germanies <i>Heilpraktiker</i>
HVLA	High Velocity Low Amplitude

I

IAO	International Academy of Osteopathy
i.e	in example
IFAO	Institut für angewandte Osteopathie

L

LAS	Ligamentous Articular Strain
-----	------------------------------

M

MAS	Membranous Articular Strain
MET	Muscle Energy Technique

N

N(g)	All sent out questionnaires
N(T)	The study group; reduced by drop outs

O

OAM	Osteopathie Akademie München
OMT	Osteopathic Manipulative Treatment
OSD	Osteopathie Schule Deutschland
<u>P</u>	
PLZ	Zip code area of Germany
PRM	Primary Respiratory Mechanism
<u>R</u>	
RTM	Reciprocal Tension Membrane
<u>S</u>	
SKOM	Privatschule für klassisch Osteopathische Medizin
SRM	Secondary Respiratory Mechanism
SSF	Self Shifting Fulcrum
<u>T</u>	
THM	Traube Hering Mayer Oscillation
<u>V</u>	
VIO	Vesalius Institut für Osteopathie
VOD e.V.	Association of German Osteopaths

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