Communication Patterns in the Homoeopathic Interview: A comparative study of 5th year interns and qualified practitioners.

By

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Approved for Final Submission

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I DEDICATE THIS STUDY TO WENDY, BLYE, JACOB AND PADDY:
FOR YOUR LOVE, SUPPORT AND ENCOURAGEMENT.
THANK YOU.

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Abstract

Objective

The purpose of this study was to compare the communication patterns in the homoeopathic first consultation between qualified practitioners and student practitioners. The overall patterns were also compared to standard medical literature on patient practitioner dialogue.

Patients and methods

The research groups consisted of two groups of ten participants: one group of qualified registered, and practicing homoeopaths and the other of student interns at the Homoeopathic Day Clinic at the Durban Institute of Technology.

Each participant conducted two consultations which were taped for research purposes. These were conducted in the setting of either their private practices or in the Homoeopathic Day Clinic. These tapes were used to generate a data set that described the relative frequencies of certain utterances according to the Roter Interaction Analysis System (RIAS). This data set was analysed statistically to give a comparison between the two groups, as well as being used to describe the patterns of communication in a homoeopathic setting in the larger context of medical interactions.

Results

Significant statistical differences were noted in the communication patterns of practitioners as opposed to student homoeopaths.

Furthermore there were significant correlations between the communication patterns of homoeopaths (both student and practitioner) and those of their patients.

Conclusion

The application of the RIAS to the coded homoeopathic consultations yielded significant statistical results.

In addition, the investigation into this area yielded significant data in terms of the homoeopathic consultation in the general medical context and provided questions for deeper research.

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Chapter 1: Introduction

1.1 Introduction

In any interaction between two people, the meaning that is intended and understood is to a large extent dependant on the language used and the patterns that the communication follows. (Andersen, 1991:243). In a medical interaction the clinical imperatives of diagnosis and treatment are balanced by psycho social imperatives of compassion, understanding and empathy. (Duffy, 1998:139). In homoeopathy these imperatives are inextricably linked. Remedy diagnosis and posology are tied to an understanding of the patient both physically and mentally. (Kaplan, 2001:206; Sankaran, 1991:7). Thus in medicine in general and homoeopathy in specific the outcomes of treatment are highly dependant on the quality of communication that the practitioner and patient engage in.

This study was an exploration of these communication patterns in the homoeopathic setting and an attempt to generate an understanding of the ways that qualified practitioners communicate with their patients in comparison with fifth year students of homoeopathy at the Durban Institute of Technology.

The study used audiotape analysis to describe communication patterns in the setting of homoeopathic care. The communication patterns of student practitioners were measured against those of qualified practitioners with a view to identifying distinctions between the two groups. These patterns were also compared to patterns and trends identified in the allopathic medical interview and placed in the continuum of philosophical approaches that govern the two approaches to health and disease.

1.2 Problem statement

The aim of the study was to compare the communication patterns of qualified homoeopathic practitioners to those of fifth year homoeopathic student interns at the homoeopathic Day Clinic of the Durban Institute of Technology. A description of the communication pattern of each consultation (the relative frequency distribution of different types of utterances by both patient and practitioner) from the two groups was generated by application of the Roter Interaction Analysis System. These relative frequency distributions were the basis for on which the comparison was made.

In order to statistically evaluate the communication patterns of the two groups, two objectives were identified. These allowed hypothesis testing to be applied using the relevant statistical procedures.

1.2.1 First Objective

The first objective proposed to evaluate statistically significant correlations between the relative frequency of utterances made by the homoeopaths (student and qualified) to the relative frequency of utterances made by the patients. Correlations between certain categories were noted and attempts made to explain these correlations.

1.2.2 Second Objective

The second objective proposed to evaluate statistically significant differences between the relative frequency of utterances made by student homoeopaths and their patients, and the relative frequency of utterances made by qualified homoeopaths and their patients.

1.3 Delimitation of Area of Interest

Due to the great variability between the initial homoeopathic consultation and the follow up consultations, this study restricted itself to consideration of the initial consultation. Further, the patients were required to be consulting the homoeopath for treatment of a chronic condition. Again, the different emphases that can be placed by homoeopaths on the approach to treatment of chronic as opposed to acute conditions necessitated this delimitation. The study aims to limit sources of potential variability by restricting these two aspects of the homoeopathic method.

1.4 Rationale for the Study and Research Questions

Effectively eliciting, gathering and assessing patient information is critical to the success of homoeopathic treatment. (De Schepper, 2001:572; Kaplan, 2001:206). At present no scientific assessment of the communication patterns homoeopaths adopt in the consultation has been conducted.

Identifying communication patterns that increase the success of the consultation process can increase the effectiveness of homoeopathic treatment.

Understanding the differences in the communication patterns of trainee and qualified practitioners could lay the foundation for further research into factors which impact on these communication patterns and hence on the quality of homoeopathic treatment. These factors include practitioners' or patients' personality, typology, age and life experience as well as practitioners' clinical exposure, philosophical understanding of homoeopathy and training.

As the Roter Interaction Analysis System has been widely used in the allopathic context, a description of the communication patterns in homoeopathic consultations allows a comparison between the homoeopathic

consultation and the allopathic consultation. The main rationale for this comparison is to start to understand and quantify the differences between the two medical approaches with a view to understanding the possible impact the consultation is having on patient satisfaction and health related quality of life.

Chapter 2: Literature review

2.1 Introduction

There is an increasing recognition in medical literature that the medical interview is a healing dialogue between patient and doctor. The outcomes of this interaction, both clinical and personal, depend on a set of core skills. These skills include gathering diagnostic information, building a therapeutic relationship and counselling patients (Duffy, 1998: 139). The ability to communicate effectively is critical to the successful realisation of these clinical imperatives. (Emanuel and Dubler, 1995: 323). Much of medicine's curative power is recognised as residing in the doctor-patient relationship yet relatively little is known about this source of variability in the medical context. (Roter et al., 1997:350). Although researchers agree that both technical content and communication style are important, few studies have been designed to discriminate between these and describe the relative effect that each factor has on the doctor-patient. (Roter et al., 1997: 350).

In the homoeopathic consultation these factors and effects exist to the same, if not greater, extent. Information gathering and building a therapeutic relationship are closely linked as the type of information required of the patient is more detailed, more personal and more individual.
(De Schepper, 2001:572). The need to "clearly perceive what is to be cured in.... every individual case of disease" (Hahnemann, 1836: 314) requires communication and perception that is highly demanding of the practitioners' interpersonal skills.

2.2 Communication in the Medical Consultation

Interview style and communication pattern is a good predictor of the extent of disclosure of psychosocial issues. (Wissow et al., 1994: 289). Interviewing style can significantly impact on the patient's experience of emotional distress,

(Roter et al., 1995: 1877), and the structure and dynamic of the medical interview is related to the level of patient satisfaction (Bertakis et al., 1991: 175) as well as the outcome of the intervention. (Inui et al., 1836: 49). There is an increasing drive towards 'patient centred-ness' in interactions. (Ruusuvuori, 2001: 1093). Researchers (both in the medical and sociological field) are increasingly questioning the paternalistic medical paradigm which informs the use of language and determines the type of relationship and balance of power in the medical consultation. (Roter et al., 1997: 350). The allopathic model of disease and medical interaction is gradually evolving towards recognition of the patient as a holistic being, encompassing sociological, emotional, and spiritual components. (Suchman and Mathews, 1988: 125; Fehrsen and Henbest, 1993: 49). The physician needs to explore these areas as well as the physical symptomatology in order to facilitate the patients' progress towards health.

The particular skills required to explore these areas of the patients' experience can be taught and learnt. (Novack et al., 1997: 502). The extent to which these skills are employed however, depends on the personal characteristics of the physician - including past experiences, values, beliefs, attitudes, and biases. (Novack et al., 1997: 502)

The recognition of the impact that communication patterns have on the outcomes of the medical interaction, have led to efforts to identify desirable and effective patterns within the medical framework. These patterns are measured against the theoretical ideals which describe the relationship between doctor and patient. (Roter et al., 1997: 350). This allows comparison and recognition of effective/desirable patterns within various clinical contexts, as well as more focussed and specific educational programs.

2.2.1 Homoeopathy – 'a special case'

The homoeopathic consultation can be thought of as a 'special case' of the medical interaction. (Kaplan, 2001: 206) It is guided by particular philosophical standpoints which dictate the basic approach towards the patient and his/her

disease. (De Schepper, 2001: 572). This philosophical underpinning includes the injunction to understand the patients' medical symptoms, history and pathology as well as the contributing emotional, mental and personal milieu that engendered these problems. As such the homoeopathic consultation has aims which are more broadly formulated than the medical consultation, and yet the basic aim is similar- to elicit the necessary information which will (when guided by methodology and philosophy) facilitate a return of the patient to health. "The physician's high and only mission is to restore the sick to health; to cure as it is termed." (Hahnemann, 1836: 314).

The process of case taking is seen as fundamentally important to successful homoeopathic practice. "A properly taken case is more than half cured..." (Close, 1996: 280) There is however little writing in the homoeopathic literature addressing the aspects of methodology of case taking as it relates to communication patterns. Homoeopathic philosophy clearly defines the need for certain types of information as well as setting the interaction within the patient centred paradigm. (Kaplan, 2001: 206). However, communication patterns which allow the homoeopath to facilitate information flow, counselling and medical outcomes and simultaneously express salient homoeopathic philosophy are un-described. Homoeopathic literature deals in depth with what is required from the patient (De Schepper, 2001: 572) but the way the underlying philosophy translates into individual clinical settings is variable and largely dependent on training, life experience and the personal outlook of the homoeopath. (Taylor, 2003: web site).

2.3 The doctor- patient relationship

2.3.1 Medical/Allopathic Models

Over the last few decades numerous researchers have explored the doctor patient relationship. (Detmar et al., 2001: 1351). The major models were reviewed in order to understand the current approaches and in order to place the homoeopathic consultation and communication patterns therein.

2.3.1.1 Balance of power

Parson (1951: 312) described illness and the doctor patient relationship in terms of social roles and the self regulation of deviance by society. He viewed illness as a deviance from normal functioning with negative implications for the smooth functioning of society. The doctor's role was the "gatekeeper of the sick role" i.e. the gatekeeper who held the keys to the societal privileges and rights accorded to those classified as sick. Patients were given access to the rights of a sick person only by approval of the doctor. The physician was thus seen as part of societies mechanism to ensure its' own continued functioning. (Parsons, 1951: 312).

In this framework the doctor patient relationship is described in terms of authority and power i.e. the locus of control. The consultation is classified based on the level of control over decisions, processes and procedures exercised by either the doctor or the patient. (Parsons, 1951: 312). The level of control exercised is paralleled by the degree of responsibility for decisions and choices as well as the degree of input into a decision or process. A high degree of control parallels a high level of responsibility and high level of input. Figure 2.1 summarises the classification of the doctor patient relationship based on the exercise of control and responsibility. (Parsons, 1951: 312).

Fig 2.1 Types of doctor patient relationship

Patient Control, Responsibility and input.	**Doctor Control, Responsibility and input.**	
	Low	**High**
Low	Default	Paternalistic
High	Consumerist	Mutualistic*

*Note that in this model the levels of control are not mutually exclusive i.e. it is possible for both doctor and patient to be exercising high levels of control and responsibility. In this case the areas and decisions each partner has control over and responsibility for will be determined by the individual's knowledge and self confidence.

These situations are seen to arise in various clinical settings and vary from doctor to doctor and context to context (e.g. family medicine consultations, oncological consultations, obstetrical consultations).

The paternalistic (or guidance-co-operation) category describes the situation where the doctor is dominant and decides what is in the patient's best interests. (Parsons, 1951: 312). A relationship of mutuality exists when the patient takes a more active role in the consultation. Both parties participate as equals in a consultation involving an exchange of ideas and sharing of belief systems. (Bertakis et al., 1991: 175). The consumerist model describes a situation where the power relationships are reversed with the patient taking the dominant role and the doctor assuming a more passive role. A default relationship occurs when both doctor and patient remain fairly passive. (Parsons, 1951: 312).

There is a strong correlation between the dominant form of relationship that is followed in the consultation and the type of communication patterns employed. (Roter et al., 1997: 350). In this way understanding the communication patterns used in consultation (homoeopathic or allopathic) can give significant insight into the power relationship between the doctor and patient.

Roter et al. (1997: 350) describe the communication patterns emerging from a study observing communication patterns between 127 physicians and 537 patients, as Strictly Biomedical, Biomedical-Limited Psychosocial, Mixed Biomedical-Psychosocial and Psychosocial. The strictly biomedical consultation is characterised by focus on Closed-ended questions dealing with Biomedical issues, low level of Psychosocial discussion less Emotional talk or positive talk and little control over flow or direction by the patient.

The Biomedical/Limited-Psychosocial is characterised by increased use of Open-ended questions and more Psychosocial discussion. This is limited to

major issues affecting the Biomedical condition and there is still little control by the patient. Both of these correspond to the paternalistic relationship.

Mixed Biomedical-Psychosocial and Psychosocial patterns are characterised by increasing use of Open-ended questions, focus on discussion and exploration of Psychosocial issues, increasing control over flow and direction by the patient, high levels of emotional talk and positive talk and show correspondence to mutualistic or consumerist approaches.
(Roter et al., 1997: 350)

2.3.1.2 Six C's: Components of the ideal doctor - patient relationship

This model takes an ideal view in terms of the aims and functions of the medical interaction. Emanuel and Dubler (1995: 2221) describe this model as a guideline to assessing the relationship between doctor and patient. The extent to which communication patterns support or obstruct the following ideal components is the basis for assessment of the consultation: Choice, Competence, Communication, Compassion, Continuity and Conflict of interest. (Emanuel and Dubler, 1995: 2221).

Choice includes 1) choice of practice type and setting, (2) choice of primary care physician (3) choice of specialist or special facility, and (4) choice among treatment alternatives. (Emanuel and Dubler 1995: 323).

Competence (necessary but not sufficient) includes (1) a good reference base of knowledge kept current with developing practices, (2) good technical skills to perform necessary diagnostic and therapeutic procedures, (3) good clinical judgement and (4) an understanding of physicians own limitations and a willingness to refer to specialists or other health care providers. (Emanuel and Dubler 1995: 323).

Communication entails listening to and understanding the patient as well as communicating that understanding. This includes understanding the patients' symptoms, the patients' values, the patients' health related concerns and the

effect the illness is having on the patient's life, family, job, and other pursuits. Physicians need to be capable of explaining diseases to patients including the prognosis and progression of the disease and available diagnostic and therapeutic options. Further physicians need to facilitate an exploration of the disease process in the patients experience to help them to "explicate their experiences, values and feelings." (Emanuel and Dubler 1995: 323). This criterion shows close parallels to the Psychosocial pattern described by Roter (1997: 350) as well as to the patient centred clinical method described in 2.3.1.4. In a homoeopathic context this criterion would apply equally, and would form an integral part of understanding the patient in his/her entirety. (De Schepper, 2001: 572; Sankaran, 1991: 23).

Compassion includes the ability to experience a sense of empathy and communicate this to the patient. While maintaining compassion, the physician needs to be able to challenge those experiences, values and attitudes that are causing distress to the patient and help them to review their feelings, change their attitudes and place their experience in a larger perspective. (Emanuel and Dubler, 1995: 323).

Continuity describes the need for the patient – physician relationship to endure over time. This is the time taken to build a trusting relationship where the physician can begin to understand the patient in the context of their disease and life. (Emanuel and Dubler, 1995: 323).

No Conflict of interest demands that the physicians primary concern will be his or her patient's well being. The care of the patient should take precedence over the physicians personal interests especially financial interests. (Emanuel and Dubler, 1995: 323).

These properties of the ideal relationship can express themselves in a number of different ways. The underlying paradigm will determine the form of the consultation as well as the type of information that is presented and the patterns of communication that comprise the consultation. (Bandler and Grinder, 1975: 225; Emanuel and Emanuel, 1992: 2221).

2.3.1.3 The 'Three-Function' Approach to the Medical Interview

Cohen-Cole and Bird (1991: 578) developed a functional model of the consultation for teaching and research purposes. Three functions that need to be fulfilled in consultation were identified. Each of these functions incorporates a number of practical skills which correlate with particular modes of communication.

2.3.1.3.1 Gathering data to understand the patient's problems

Gathering data relies on/makes use of open-ended questions, open to closed cone (i.e. gradual change of focus from Open-ended questions to Closed-ended questions to clarify and sift data- see Glossary), facilitation, checking, survey of problems, negotiating priorities, clarification and direction, summarising, eliciting patient's expectations, eliciting patient's ideas about aetiology and eliciting the impact of illness on patient's quality of life. (Cohen-Cole. 1991: 578) These functions are all critical to the homoeopathic consultation as they dictate the quality of information gathered and it's specificity to the patient and his/her life.

2.3.1.3.2 Developing rapport and responding to patient's emotion

Developing rapport involves reflection, legitimisation, supporting, partnership and respect. (Cohen-Cole, 1991: 578). This function serves a supportive role to 2.3.1.3.1 above. The extent to which this function is fulfilled is determined by the skill of the practitioner – particularly in dealing with emotional issues. (Suchman and Mathews, 1988: 125). This skill will impact on the quality of the information elicited. This function is vital to the success of the homoeopathic consultation. (Kaplan, 2001: 206). The homoeopath needs to include in his/her considerations the emotional aspects of the patient and the effect these aspects may have on the communication patterns. (Whitmont, 1980: 190).

2.3.1.3.3 Patient education and motivation

Patient education and motivation involves education about illness, negotiation and maintenance of a treatment plan and motivation of non-adherent patients. (Cohen-Cole, 1991: 578).

2.3.1.4 The Patient Centred Interaction

The term "patient-centred medicine" was introduced by Balint (Mead and Bouwer, 2000: 1087) who contrasted it with "illness-centred medicine".

Brown et al. (1986: 75) suggested that many physicians develop a consulting style that tends to be doctor-centred. Clinical teaching in medical schools tends to emphasize a doctor centred or disease-centred, approach. According to this model, physicians ascertain the patient's complaints and seek information that will enable them to interpret the patient's illness within their own frame of reference. This involves diagnosing the patient's disease and prescribing an appropriate management. In pursuit of this goal, physicians use a method designed to obtain objective information from the patient.

The patient-centred model presents an alternative framework that attempts to understand the patient and his/her illness in the context of his/her life. Levenstein et al. (1986: 24). In this model the physician needs to consider the biophysical manifestations of the illness as well as the mental and emotional components and the patient's family and social context. (Levenstein et al., 1986: 24; Stewart et al., 1986: 164). The patient centred model comprises six interactive components. As the doctor's familiarity with the principles of the patient centred method increases, these components become woven together in the consultation setting rather than following any prescriptive pattern. The free flow between components is a key aspect of the patient centred method. (Levenstein et al., 1986: 24; Stewart et al., 1986: 164; Brown et al., 1986: 75).

2.3.1.4.1 Exploring the disease and the illness experience

This describes the doctor's dual obligation: to explore both the disease (the structural and functional biochemical entity involving diagnostic labelling, prognosis, and treatment) and the illness (the patient's personal subjective experience of the disease). (Levenstein et al., 1986: 24). The exploration of the subjective aspect includes four principal dimensions:

(a) their ideas about what is wrong with them;

(b) their feelings about being ill (particularly their fears);

(c) the impact of their problems on their level of functioning; and

(d) their expectations about what should be done. (Levenstein et al., 1986: 24).

2.3.1.4.2 Understanding the whole person

This entails an understanding of a patient in context of their life and stage of personal development, which is gained over a period of time. This may include the family, work, beliefs, culture and personal struggles of the patient. (Levenstein et al., 1986: 24).

2.3.1.4.3 Finding common ground regarding management

This requires both parties to reach agreement in three key areas: (a) the nature of the problems and priorities, (b) the goals of treatment, and (c) the roles of the doctor and the patient. This reminds physicians to incorporate patients' ideas, feelings, expectations, and function into treatment planning. (Levenstein et al., 1986: 24).

2.3.1.4.4 Incorporating prevention and health management,

This fourth component involves a collaborative effort to plan, implement and monitor disease prevention and health promotion measures. (Levenstein et al., 1986: 24).This includes possible problem areas in the patient's life as well

as screening for anticipated and unrecognised disease. Continuing and comprehensive care is the underlying philosophy of the practice.

2.3.1.4.5 Enhancing the doctor-patient relationship

Enhancing the doctor-patient relationship entails building effective long term relationships with patients and fulfilling the healing potential therein. This requires physicians to use tools of self awareness and relationship skills (empathy, support, genuineness) to attend to patients needs. (Levenstein et al., 1986: 24; Duffy, 1998: 128).

2.3.1.4.6 Realism in a practice setting

This dictates a concern for the pragmatic realities of practice. It requires doctors to manage time efficiently including prioritising, resource allocation and teamwork. Finally, doctors need to respect their own health and energy limits and balance their work demands for sustainable and long term mutual benefit. (Levenstein et al., 1986:24)

2.3.2 The Homoeopathic model

The homoeopathic consultation is an extension of a general medical consultation. (Taylor, 2003). The materia medica and philosophy direct a need for deeper understanding of the patient than a narrow bio-medical approach. In the Organon, Hahnemann presents the ideal model of the homoeopathic relationship- the 'unprejudiced observer' relationship. Emphasis is placed on observation of the patients' disease symptoms- manifesting in physiological, mental and emotional symptomatology. This entails observing the patients' conceptual frameworks in operation in their lives.

Grimmer (1961: 345) states, "The doctor who treats his patient with the art and science of Homeopathy is a medical idealist recognizing the deeper and more subtle aspects of human sickness and its cure. He accepts the fact that the patient is sick mentally and emotionally as well as physically. He also sees

his patient as an individual unit requiring special individual study for the one individual remedy needed for his special case of sickness no matter what the diagnostic name of his illness may be." This encapsulates the ideal approach to the patient adopted by the patient-centred method.

Homoeopathic literature describes in depth the quanta of information that the physician needs to consider when pursuing the patients' symptom picture (i.e. the patient's characteristic individualising symptoms within the conceptual framework governing his/her life), however little or no description is given of discourse tools or useful conversational/interrogative techniques and skills. (Sankaran, 1991: 23; Close, 1996: 280).

The Patient-centred method closely parallels the homoeopathic approach. (Kaplan, 2001: 206; Close, 1996: 280). The method encapsulates, within the allopathic model, the homoeopathic focus on the patient with an aim to full understanding of symptomatology, experience of illness, life context and outlook and social, mental and emotional dimensions of disease.

2.4 The homoeopathic physician

Homoeopaths in South Africa need to be capable primary health care practitioners in a medical context as well as satisfy the principles expressed by Hahnemann in *The Organon of Medicine*. Medically and homoeopathically, the physician needs to have a repertoire of basic relationship skills, beyond the clinical competencies of primary health care. (De Schepper, 2001: 572). These include recognising indirectly expressed emotions, inviting exploration of unexpressed feelings, and acknowledging these feelings (Schuman et al., 1997: 678). Effective communication dynamics is critical to the successful application of these skills.

The homoeopathic consultation is a very advanced clinical interaction in terms of depth of exploration and hence skill required to recognise and elicit quality information. Sankaran (1991: 7) states the demands on the homoeopathic

physician in individualising the patient and tracing the picture of the disease "as we see it".

Furthermore, we see the need to be "free from prejudice,... to have attention in observing, and fidelity in tracing the picture of the disease".(Hahnemann, 1836: 314).

The successful Homeopathic prescriber "must take on the role of an astute detective in his search for symptoms and facts that are accurate and true. Again he must be an impartial judge of these facts and harmonize them with the facts of the Materia Medica; he must be free of prejudice and develop the art of logical thinking." (Grimmer, 1964: 212).

The homoeopathic physician needs to have the insight to elicit the key symptoms of the central disturbance (disease state) while maintaining the objectivity to recognise the diversity of presentations of this central disturbance. (Sankaran, 1991: 7). In addition, symptoms of the disturbance need to be distinguished from traits common to the culture, age, class, sex and educational levels of the patient. This requires a high level of general knowledge, clinical knowledge and self-knowledge and necessitates a communication style which supports these outcomes. (De Schepper, 2001: 572)

Sankaran (1991: 24) uses the term 'case discovering' (rather than 'case taking' or 'case receiving') as it reflects the necessarily skilful nature of the physicians role-neither active (taking) nor passive (receiving). A physician's communication level and his/her interaction with the patient are critically important in articulating the state of the patient.

The physician, by his manner of interrogation and general questions, must do everything not to determine, but to let the patient himself characterize the particular facts. (Close, 1996: 280).

2.5 Interaction Analysis

The level of interest in the medical interview, the "therapeutic interaction", has resulted in approaches to study from several disciplines. (Bertakis, 1977: 217). These include psychologists, anthropologists, operations researchers, linguists, counsellors and clinicians. Interaction analysis systems while differing widely in approach, have generic similarities:

- an observational strategy (videotape or audiotape review, direct observation or review of literal transcript),
- a process or quality of interest (verbal or nonverbal behaviour, emotion, authority use, problem solving etc.),
- a categorisation system for describing events and
- an approach to measure these events. (Inui et al., 1982: 535; Baine, 1977: 347).

Further distinctions can be made between these systems based on their orientation ('cure-oriented' or task focussed vs. 'care-oriented' or affect oriented) and setting specificity (hospital in-patients, out-patients or general practice settings). (Carter et al., 1982: 550).

The Roter Interaction Analysis System (RIAS) is a robust scale which is applicable to a broad range of clinical settings. (Roter and Larson, 2001: 33). It has been used extensively in medical interaction analysis and is well described in terms of its' statistical properties e.g. reliability and validity. In the medical context the RIAS is a recognised and accepted tool for describing and quantifying the interaction. (Ong et al., 1998: 387). In terms of this study, it satisfies the following criteria:

- It captures both care and cure oriented behaviours.
- Recorders are easy to employ and not as intrusive (and potentially disruptive of the normal interaction flow) as video cameras. (Carter et al., 1982: 550)
- The coding process is manageable from a time and implementation aspect. (In a comparison of different interaction analysis systems Inui

et al. (1982:535) found the RIAS less time consuming and performing at least as well as more complicated systems based on transcript analysis.)

- The RIAS has been tested for reliability and validity. (Inui et al., 1982: 535)
- The RIAS is one of the most commonly used systems, is well documented and has proved to be reliable. (Wolraich et al.,1986:891)

Other coding systems that were considered were Bale's Interactive Scale, Stiles' Verbal Response Mode System, and pure qualitative analysis of transcripts. RIAS was chosen in preference due to the above mentioned factors.

2.6 Communication Patterns

The communication patterns in the consultation process are important for establishing clinical outcomes as well as interpersonal ones. (Novack et al., 1997). The communication dynamic in the consultation is an important component of the therapeutic experience. (Suchman and Mathews, 1988:125). The establishment of a healing relationship is a fundamental clinical task which is equal in importance to diagnosis and biomedical treatment. In a study on physician behaviour, Beckman and Frankel (1984: 695) found that physician participation (particularly in the opening moments of the clinical encounter) has a substantial effect on the quality and type of information obtained. This participation is driven in part by training (the actual model of data gathering) and in part by the physician's experience. The communication pattern the physician adopts will thus depend on training and experience.

The interaction is coded by the RIAS into different super-categories namely: Affective, Content and Process Categories. Each utterance is placed into one of 34 comprehensive mutually exclusive categories which cluster into each of

the above super-categories. The relative occurrence of utterances in each category can be used to describe the communication dynamic and the underlying philosophy.

Communication patterns are described according to the type of information exchange that is prevalent in the consultation. Roter et al. (1997: 350) found that communication in a group of primary care physicians fell into one of five distinct patterns:

(1) "Narrowly biomedical" (biomedical talk and closed - ended medical questions) in 32% of visits,

(2) "Expanded biomedical" (biomedical talk and closed - ended medical questions with moderate levels of psychosocial discussion) in 33% of visits,

(3) "Biopsychosocial" (a balance of psychosocial and biomedical topics) in 20 % of visits,

(4) "Psychosocial" (characterised by psychosocial exchange) in 8 % of visits and

(5) "Consumerist" (characterised primarily by patient questions and physician information giving) in 8% of visits.

These communication patterns parallel the ideal forms of physician patient relationship described in 2.3.

Exploration of the difference in communication patterns between qualified and trainee homoeopaths will enhance our understanding of the development of physician competence and the training interventions which will facilitate the most rapid and sustainable growth. This understanding will be compared to a similar study evaluating residency training in interviewing skills and the psychosocial domain of medical practice. (Roter et al., 1990: 340).

Chapter 3: Materials and Method

3.1 Data

Primary and secondary data were used in this study. Primary data included audiotapes of the members of the sample groups in consultation with new patients. These audiotapes were coded according to the Roter Interaction Analysis System (RIAS). The data were collected at various sites around Durban. These were the private practices of the practitioners and the Homoeopathic Day Clinic of the Durban Institute of Technology. All practitioners and students were taped in consultation in a private practice setting.

Secondary data included literature sourced from literary sources (e.g. libraries) and the internet.

3.2 Participants

The study was conducted with two groups. The first group consisted of ten 5th year homoeopathic students at the Durban Institute of Technology. The second group consisted of ten qualified practicing (registered) homoeopaths. The participants were obtained by invitation, thus constituting a convenience sample. This sample size was sufficient for statistically significant results.

Two consultations from each of the participants (test-retest principle) were audiotaped from each group. Audiotaping was used as this was sufficient to provide the necessary information to analyse the interactions, without altering either the physicians or patients natural communication. (Ong et al., 2000: 3052). The two consultations were recorded with a minimum of 2 weeks between them. This ensured that no experimenter effects changed the natural style of the practitioners' interview.

3.2.1 Inclusion Criteria

The student homoeopaths and qualified homoeopaths needed to satisfy the following inclusion criteria, respectively.

Student Group- Group 1

1. At the time of the study, registered as a 5th year student of Homoeopathy the Durban Institute of Technology.
2. Participants had read the Practitioner Information Sheet (Appendix 1) and if participation was agreed, signed the Practitioner Consent Form (Appendix 2).

Practitioner Group- Group 2

1. Minimum of 1-year experience in practice.
2. At the time of the study, practicing in the Greater Durban Metropolitan Area
3. Qualified since the re-opening of the register in 1989.
4. Participants read the Practitioner Information Sheet (Appendix 1) and, if they agreed to participate, signed the Practitioner Consent Form (Appendix 2).

Criterion number 3 was included to ensure a commonality of education and training between the practitioner group and student group. Changes in educational strategy, syllabus content, duration of the course and training methodology in the last few decades necessitated this criterion.

3.3 Patients

Patients were recruited for the study by the physicians and students involved in the study. They formed a convenience sample drawn from the available pool of new patients. The patients needed to satisfy the following inclusion criteria:

1. The patients had read the Patient Information Sheet (Appendix 3) and if participation was agreed, signed the patient consent form. (Appendix 4)
2. The audiotape must be taken of an initial consultation. The consultation must be for treatment of a chronic condition.
3. Patients should be over the age of 18.
4. The patients should be fluent in the English language.

3.4 Experimental Design

Participants (students and practitioners) were contacted and invited to participate in the research project. The Practitioner Information Sheet (Appendix 1) was distributed to them and, if participation was agreed upon, the Practitioner Consent Form (Appendix 2) signed. The participants were then given a number of copies of the Patient Information Sheet (Appendix 3) and Consent Form (Appendix 4) as well as a tape recorder, microphone and tapes.

Patients were approached by the practitioners and asked if they would like to participate in the study. Once the patient had read the Patient Information Sheet (Appendix 3) and signed the consent form the practitioner then conducted the consultation as normal apart from the audiotaping.

Practitioners were asked to tape the full consultation, including the physical examination and any lifestyle or medical suggestions the practitioner may have made at the conclusion of the interview.

The practitioner was contacted by the researcher again after a reasonable time to allow for taping to have been conducted. The researcher then collected the tape from the practitioner.

Coding of tapes was then conducted and the results stored as a database until all the tapes were coded. Analysis of the results was then conducted.

3.5 Confidentiality

Confidentiality of patient and participant (practitioners and student practitioners) information was ensured by adherence to a Confidentiality Protocol guiding the handling of tapes and data.

Patient Confidentiality Protocol

1. No copies of any of the tapes were made.
2. The tapes were destroyed after the researcher had been awarded his degree.
3. The tapes were marked with numerical codes to avoid any identification.
4. Only the student researcher and the supervisor had access to the tapes.
5. No records of the patients' name, surname, address or contact numbers were recorded for research purposes.

Participant Confidentiality Protocol:

1. No Records of participant names or personal details were made.
2. No Records of which taped consultation was conducted by which participant, were made.

3.6 Coding and Analysis

The tapes of the consultations were encoded using the Roter Interaction Analysis System (RIAS).The RIAS is a method of coding patient-provider interaction during the medical visit.

The coding approach is tailored to capture medical visit interactants (patient and provider). All patient and provider dialogue is coded in categories, which may be applied to each speaker, although some categories may be more common to a particular speaker. Categories are tailored to directly reflect the content and context of the routine dialogue between patients and doctors during medical exchanges. Categories are mutually exclusive so utterances

are unambiguously assigned to categories reflecting their meaning and function in the interaction.

Identification and classification of verbal events are coded directly from audio, which allows assessment of the tonal qualities of interaction. These tonal qualities transmit the emotional context of the visit beyond the significance of the words spoken. Based on a general affective impression, coders also rate both the patient and physician on global affective dimensions such as anger, anxiety, dominance, friendliness and interest.

Each utterance by patient or physician was classified into one of thirty-four mutually exclusive categories. The coding process thus produced a list of frequencies representing the number of times that each type of utterance was made. This list of frequencies was then used in the quantitative analysis. Over the twenty consultations by each group, an average was generated which described the relative frequencies with which each type of utterance was made in the interactions. (Roter et al., 1997: 350). The statistician was made aware of the way that the quantitative data were generated and was satisfied that the stated sample size would provide a sufficient pool for analysis.

The RIAS is widely used in medical interaction research. There have been a number of published papers using this method of analysis (Ong et al., 1998: 387; Roter et al., 1997: 350; Detmar et al., 2001: 1351).

The quantitative data from the coding was analysed statistically using the following procedures:

- Spearman's rank ordered correlation co-efficient.
- Mann-Whitney U test.

The communication patterns revealed by the RIAS were then compared to the ideals as described in medical literature. Emanuel and Emanuel (1992: 2221) proposed 3 core elements that distinguish ideal types. In the framework of these elements, 4 ideal styles of interaction are recognised depending on

which type of questions and statements appear most often. These are: the paternalistic model, the informative/consumerist model, the interpretive model and the deliberative model.

This provided a valuable comparison to allow the homoeopathic consultation to be placed with respect to current medical understanding.

3.6.1 Coding Protocol

To facilitate accuracy of coding and validity of the results, a preparation and process protocol was established. This protocol, developed in correspondence with the author, Dr Debra Roter, was used in place of the three day training process conducted by the author at John's Hopkins University. The 3 main features were:

- Use of the comprehensive manual for reference in the coding process.
- "Warm-up coding": 3 interviews were recorded and coded, but not used for analytical purposes. These provided the researcher with the opportunity to practice coding without affecting the outcomes of the study.
- Recoding: The first 2 interviews coded for the purpose of the study were recoded at the conclusion of the coding process. This was done without reference to the original codes. This provided a measure of the changes in the researchers coding style through the course of the study. It thus gave a measure of internal validity. The two analyses were compared by an external auditor. The external auditor did not provide any supervisory function beyond the comparison of the two codings.

Chapter 4: Results

4.1 Introduction

Following the methodology described in Chapter 2, the study produced raw data in the form of frequencies of occurrence of each category of utterance used by both Homoeopath (student or qualified) and patient. In addition a short questionnaire was completed at the end of each tape coding. This included a General Affect Rating Scale, as well as short questions related to the occurrence of interruptions, the completion of basic clinical imperatives and overall impressions and additional notes on the interaction. (Appendix 5).

The specific objectives of the analysis were as follows:

(1) To describe the communication patterns of the student homoeopaths and their patients.

(2) To describe the communication patterns of the qualified homoeopaths and their patients.

(3) To explore the relation between variation in the student homoeopaths' communication pattern and the patients' communication patterns.

(4) To explore the relation between variation in the qualified homoeopaths' communication patterns and the patient's communication patterns.

(5) To compare the communication patterns of the students' and their patients and qualified practitioners and their patients

The analysis of the data was done using SPSS® for Windows™ and Excel® XP™.

4.2 Overview of Results Chapter

4.2.1 Student Group

4.2.1.1Descriptive data

These comprised mean values for number of utterances in each category as well as overall number of utterances, by both Homoeopath and patient. Include graphic representation of the communication patterns of homoeopaths and their patients. This is covered by section 4.5.1.

4.2.1.2 Intra-group comparisons

These comprised hypothesis testing to correlate the number of utterances in student super-categories to number of utterances in patient super-categories. This is covered by sections 4.5.2.

4.2.2 Practitioner group

4.2.2.1 Descriptive data

These comprised mean values for number of utterances in each category as well as overall number of utterances, by both Homoeopath and patient. Include graphic representation of the communication patterns of homoeopaths and their patients. This is covered by sections 4.6.1.

4.2.2.2 Intra-group comparisons

These comprised hypothesis testing to correlate the number of utterances in homoeopath super-categories to number of utterances in patient super-categories. This is covered by sections 4.6.2.

4.2.3 Inter group Analysis

This comprised comparison of communication patterns of consultations between student and qualified homoeopaths and their patients respectively. This is covered by sections 4.7.

4.2.4 Post Coding Notes

4.2.4.1 Student Group

4.2.4.1.1 General Affect Rating scale

This comprised summary statistics describing the General Affect Rating Scale applied at the end of each coding process. This is covered by sections 4.8.1.

4.2.4.1.2 Short question analysis

This comprised summary of each of the short questions completed at the end of each coding process. This is covered by sections 4.8.2.

4.2.4.2 Practitioner Group

4.2.4.2.1 General Affect Rating scale

This comprised summary statistics describing the General Affect Rating Scale applied at the end of each coding process. This is covered by sections 4.9.1.

4.2.4.2.2 Short Question analysis

This comprised summary of each of the short questions completed at the end of each coding process. This is covered by sections 4.9.2.

4.3 Abbreviations

Student group = group of student practitioners and their patients

Practitioner group = group of qualified practitioners and their patients

H_0 = null hypothesis

H_1 = alternative hypothesis

Pt = patient (of either student or qualified practitioner)

S.D. = Standard deviation

z= Standardised z value for statistical measurements

p= two tailed probability of equalling or exceeding z/2 i.e. p is the

N.S. = No statistically significant difference

S = Statistically significant difference

If $p < 0.05$ then no significant difference was concluded (5% level of significance)

If $p > 0.05$ then no significant difference was concluded (5% level of significance)

4.4 Content analysis

Analysis of the audiotaped consultations was conducted using the RIAS. Each discernible segment of speech or verbal utterance is the unit of analysis. Each utterance was assigned to one of 38 (Homoeopath) or 34 (patient) mutually exclusive categories. These were condensed into fewer, larger, more descriptive mutually exclusive super-categories for purposes of analysis and discussion. This resulted in 16 Homoeopath super-categories and 12 patient super-categories. (Table 4.1). These groupings were derived from those used in two studies into doctor-patient interactions in the medical context. (Roter et al., 2000: 3477; Ford et al., 1996:1511). These groupings are consistent with the RIAS author's subdivision of the utterance categories into functional groupings. (Roter et al., 1997: 350). For a complete list of the RIAS categories see the Glossary of Terms.

Table 4.1 Super-categories divided by Functional grouping: Affective/Socio-emotional and Task focussed/Instrumental

Socio-emotional/Affective Exchange		
Name of Super-category	**Type of utterances comprised of**	**Group Using Utterances**
Social talk	Personal, non medical exchange	Patient and Homoeopath
Positive Talk	Laughter, agreements, approval, compliments	Patient and Homoeopath
Negative talk	Disagreements and criticisms	Patient and Homoeopath
Emotional Responsiveness	Concern, reassurance , optimism	Patient and Homoeopath
	Empathy, legitimisation	Homoeopath only

Task Focussed/Instrumental Exchange		
Name of Super-category	**Type of utterances comprised of**	**Group Using Utterances**
Partnership Building	Asking for opinion, understanding, paraphrasing and interpretations	Patient and Homoeopath
Open Questions – biomedical	Medical condition and therapeutic regimen	Patient and Homoeopath
Open Questions – psychosocial	Lifestyle and social/psychological	Patient and Homoeopath
Closed Questions – biomedical	Medical condition and therapeutic regimen	Patient and Homoeopath
Closed questions – psychosocial	Lifestyle and social/psychological	Patient and Homoeopath
Biomedical Info	Information regarding medical condition treatment and side effects	Patient and Homoeopath
Psychosocial Info	Info regarding emotional issues and lifestyle	Patient and Homoeopath
Biomedical Counselling	Persuasive attempts regarding medical condition and therapeutic regimen	Homoeopath only
Psychosocial Counselling	Persuasive attempts regarding emotional issues and lifestyle	Homoeopath only
Facilitation	Back channel and transition	Homoeopath only
Orientation	Direct instructions, orientation.	Homoeopath only

4.5 Student group

4.5.1 Descriptive statistics

Table 4.2 Gender Distribution of Student Group

Gender	
Male	3
Female	7

4.5.1.1 Analysis using Super-categories

Table 4.3: Category Breakdown of Total Utterances: Student Group

Patient Categories	**%***	**N†**	**Homoeopath Categories**	**%***	**N†**
Socioemotional/Affective Exchange					
Social talk	1.6	217	Social talk	0.9	93
Positive Talk	9.2	1234	Positive Talk	21.1	2103
Negative talk	0.7	98	Negative talk	0.1	14
Emotional Responsiveness	1.9	252	Emotional Responsiveness	3.2	318
Task Focussed/Instrumental Exchange					
Partnership building	1.2	157	Partnership Building	7.5	750
Open Questions – biomedical	0.1	19	Open Questions – biomedical	5.7	568
Open Questions – psychosocial	0.0	2	Open Questions – psychosocial	7.9	787
Closed Questions – biomedical	0.4	54	Closed Questions – biomedical	15.3	1526
Closed questions – psychosocial	0.1	9	Closed questions – psychosocial	6.1	605
Biomedical Info	38.8	5179	Biomedical Info	6.6	660
Psychosocial Info	43.6	5823	Psychosocial Info	0.3	26
Other	2.4	321	Facilitation	17.1	1705
			Orientation	3.7	373
			Biomedical Counselling	1.2	121
			Psychosocial Counselling	0.9	87
			Other	2.3	229
Total Patient Utterances	57.3‡	13365	Total Homoeopath Utterances	42.7‡	9965

* Percentages given are percentages of only the utterances by the individual (patient or practitioner). i.e. 34% is 34 % of Patient utterances.
† N refers to the number of utterances in each super-category.
‡ The total percentage is the percentage of the total number of utterances contributed to the consultation by the individual i.e. 57.3% of the total number of utterances made were contributed by patient.

Note that the number of patient utterances exceeds the number of homoeopath utterances by almost a third. The patient accounts for 57.3% of total utterances while the homoeopath accounts for 42.7%.

Nearly 92% of patient utterances are accounted for by Positive talk (9.2%), Biomedical Information giving (38.8), and Psychosocial Information giving (43.6).

Homoeopath utterances are more evenly spread with Positive talk (21.1%), Facilitation (17%), and Closed-ended question biomedical question asking (15.3%) accounting for only 54% of total utterances.

The figures contained in the table above are represented graphically by Figures 4.1, 4.2 and 4.3.

Fig 4.1 Super-category Breakdown of Patient Utterances: Student Group

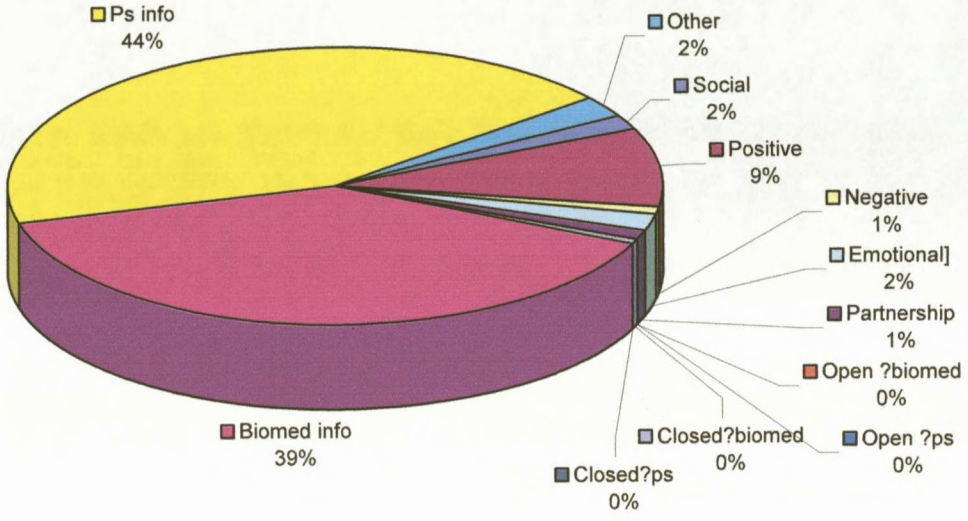


Fig 4.2 Super-category Breakdown of Homoeopath Utterances: Student Group

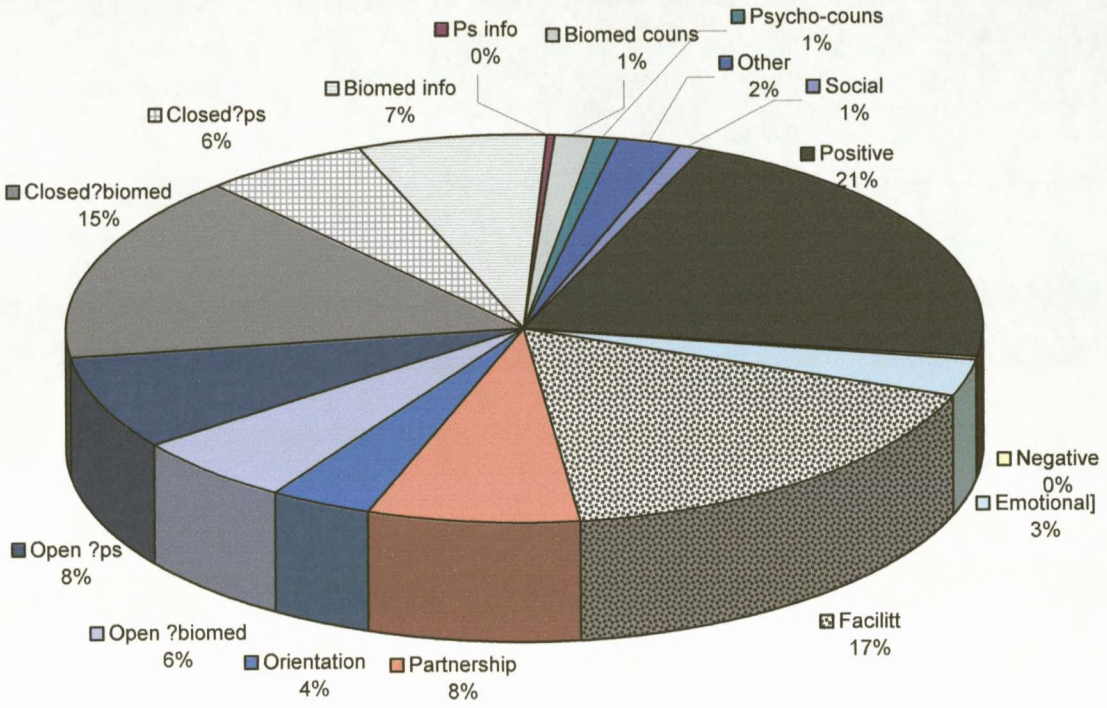
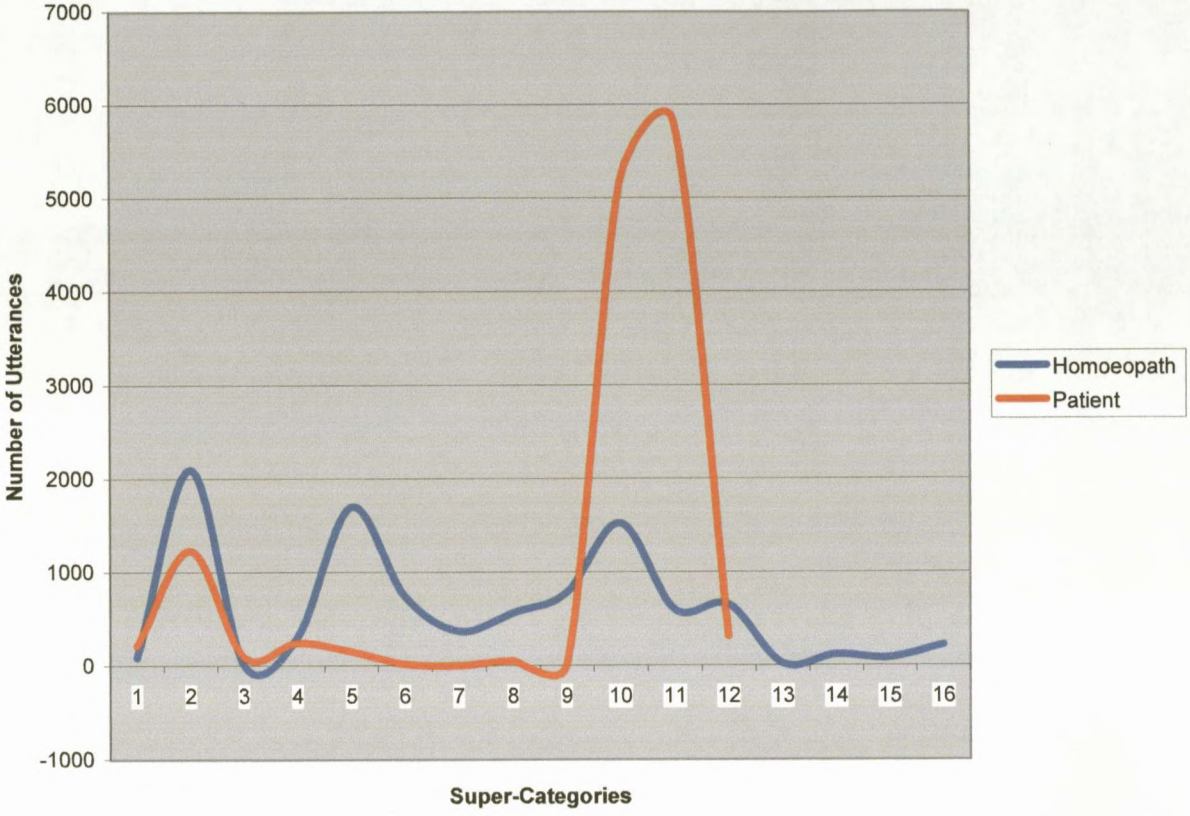


Fig 4.3 Utterance Frequency Distribution by Super-category: Student Group



In this figure certain categories are used prevalently.
The homoeopath graph demonstrates peaks at Point 2 (Positive Talk), Point 5 (Facilitation), and Point 10 (Closed ended biomedical question asking).

The patient graph demonstrates three peaks: Point 2 (Positive Talk), Point 10 (Biomedical Information Giving), and Point 11 (Psychosocial Information giving). The key to the super categories is contained in Table 4.4, following.

Table 4.4: Key to Super-Categories

Patient Categories		Homoeopath Categories	
1	Social talk	1	Social talk
2	Positive Talk	2	Positive talk
3	Negative talk	3	Negative talk
4	Emotional Responsiveness	4	Emotional Responsiveness
5	Partnership building	5	Facilitation
6	Open-ended Questions – biomedical	6	Partnership building
7	Open-ended Questions – psychosocial	7	Orientation
8	Closed-ended Questions – biomedical	8	Open-ended Questions- Biomedical
9	Closed-ended questions – psychosocial	9	Open-ended questions - Psychosocial
10	Biomedical Info	10	Closed-ended Questions - Biomedical
11	Psychosocial Info	11	Closed-ended Questions - Psychosocial
12	Other	12	Biomedical Information Giving
		13	Psychosocial Information Giving
		14	Biomedical Counselling
		15	Psychosocial Counselling
		16	Other

4.5.1.2 Analysis using individual Roter categories

In order to appreciate some of the finer variations in communication patterns similar analyses were conducted using the individual Roter categories rather than the super-categories. This is supplemental to the previous section of analyses using super-categories.

Table 4.5: Table showing mean and standard deviation values for each Homoeopath and Patient Utterance category for the Student Group.

Homoeopath Utterance Categories	Mean	Standard Deviation	Patient Utterance Categories	Mean	Standard Deviation
Personal	4.65	7.43	Personal	10.85	21.21
Laughs	17.05	18.41	Laughs	22.80	29.07
Approves	5.35	5.12	Approves	1.65	2.35
Compliment	0.25	0.79	Compliment	0.30	0.57
Agree/understand	82.50	57.79	Agree/understand	36.95	33.36
Back Channel	78.65	82.57	Empathy	0.10	0.31
Empathy	6.65	7.34	Concern	8.15	7.79
Concern	2.05	2.48	Reassures/Shows Optimism	2.15	4.50
Reassures/Shows Optimism	6.80	7.32	Legitimises	0.00	0.00
Legitimises	0.25	0.79	Disapproves	3.80	6.61
Partnership	0.65	1.18	Criticism	1.10	1.83
Self Disclosure	2.75	4.09	Asks for Reassurance	2.20	2.65
Disapproves	0.50	0.83	Transition	0.25	0.55
Criticism	0.20	0.52	Orientation	0.05	0.22
Asks for Reassurance	0.15	0.49	Check	2.05	1.79
Transition	6.60	5.92	Bid for Repetition	0.90	1.17
Orientation	18.65	13.91	Asks for Understanding	4.65	5.21
Check	32.45	20.60	Asks for Opinion	0.00	0.00
Bid for Repetition	0.10	0.31	Closed-ended Questions: Medical	2.45	2.63
Asks for Understanding	0.95	1.76	Closed-ended Questions: Therapeutic Regime	0.25	0.55
Asks for Opinion	0.60	1.14	Closed-ended Questions: Lifestyle	0.35	1.14
Closed-ended Questions: Medical	72.95	32.80	Closed-ended Questions: Psycho-social	0.10	0.45
Closed-ended Questions: Therapeutic Regime	3.35	3.39	Closed-ended Questions: Other	1.65	1.98
Closed-ended Questions: Lifestyle	24.55	43.90	Open-ended Questions: Medical	0.85	2.23
Closed-ended Questions: Psycho-social	5.70	4.09	Open-ended Questions: Therapeutic Regime	0.10	0.45
Closed-ended Questions: Other	2.50	2.59	Open-ended Questions: Lifestyle	0.05	0.22
Open-ended Questions: Medical	27.50	16.67	Open-ended Questions: Psychosocial	0.05	0.22
Open-ended Questions: Therapeutic Regime	0.90	1.68	Open-ended Questions: Other	0.30	0.57

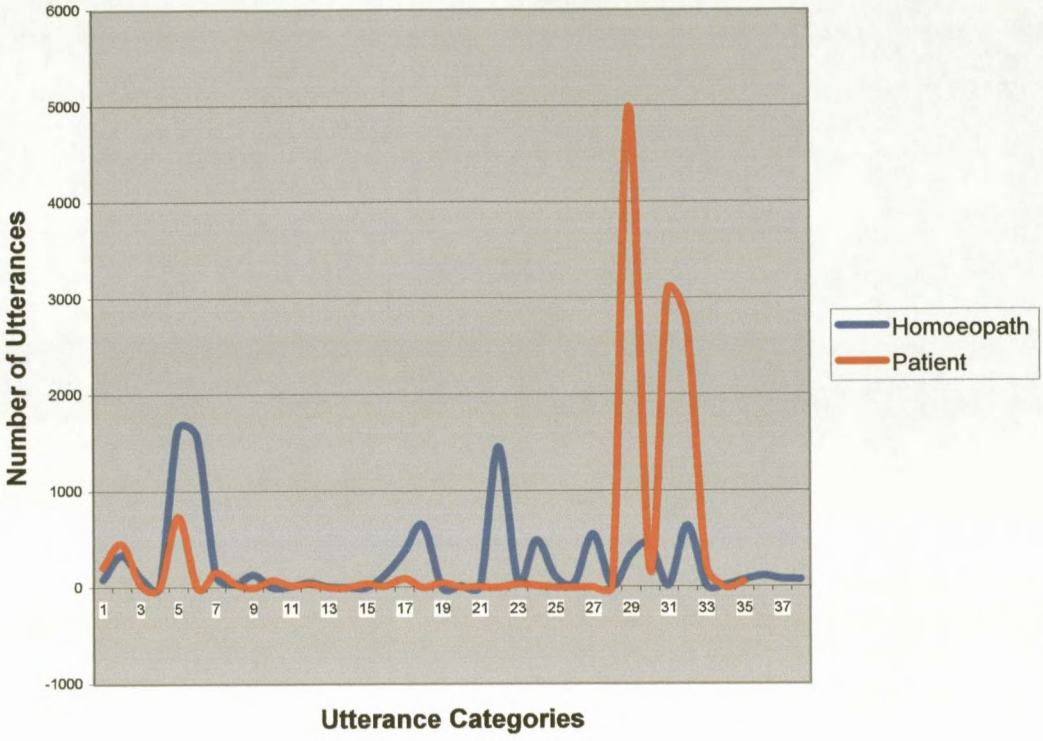
Open-ended Questions: Lifestyle	16.75	15.41	Gives information-Medical	249.75	119.63
Open-ended Questions: Psychosocial	22.60	16.43	Gives information: Therapeutic Regime	9.20	8.00
Open-ended Questions: Other	1.05	2.01	Gives information: Lifestyle	153.65	114.96
Gives information-Medical	31.90	39.57	Gives information-Psychosocial	137.50	111.05
Gives information: Therapeutic Regime	1.10	2.38	Gives information: Other	10.85	16.84
Gives information: Lifestyle	1.30	2.05	Asks for Service	0.05	0.22
Gives information: Other	3.90	4.08	Unintelligible	3.15	3.56
Counsels: Medical/Therapeutic Regimen	6.05	10.60			
Counsels-Lifestyle/Psychosocial	4.35	6.28			
Unintelligible	4.00	4.01			

Note the high incidence of the following homoeopath utterances: Agree/understand (mean 82.5), Back Channel (mean 78.65), Check (mean 32.45), Orient (mean 18.65), Medical Closed-ended questions (mean 72.95), Psychosocial Open-ended Questions (mean 22.60) and Medical Information Giving (mean 31.90).

Note also the high incidence of the following patient utterances: Medical Information Giving (mean 249.75), Lifestyle Information Giving (mean 135.65) and Psychosocial Information Giving (mean 137.5).

These incidences are graphically represented in Fig 4.4.

Fig 4.4 Utterance Frequency Distribution by category: Student Group



The first spike for the Homoeopath utterances occurs at the area of the Agree/Understand (point 5) and Back Channel (B/C) (point 6) categories. This represents those utterances that are designed to facilitate the flow of conversation- showing agreement or understanding and/or showing the patient that they are being listened to. The next spike (points 17and 18) represents the use of Check and Orient utterances. A "check" utterance is a paraphrase of the patients' communication to check the accuracy of understanding. The orient category is used to direct the mechanics of the consultation- give direction as to what the patient needs to do. The area of the graph between point 21 and 33 represents the Question-asking and Information giving area of the exchange. Numerous spikes indicate the different categories of questions asked by the Homoeopaths as well as the types of information given in the consultation.

The patient graph shows some differences. The first peak occurs at the "agree" area of the curve (point 6). Thereafter the occurrence of utterances is fairly low until point 30 -34. These represent the Information Giving categories.

The key to the Individual Categories is contained in Table 4.6, following.

Table 4.6 Key to Individual Roter Categories.

Homoeopath Utterance Categories		Patient Utterance Categories	
1	Personal	1	Personal
2	Laughs	2	Laughs
3	Approves	3	Approves
4	Compliment	4	Compliment
5	Agree/understand	5	Agree/understand
6	Back Channel	6	Empathy
7	Empathy	7	Concern
8	Concern	8	Reassures/Shows Optimism
9	Reassures/Shows Optimism	9	Legitimises
10	Legitimises	10	Disapproves
11	Partnership	11	Criticism
12	Self Disclosure	12	Asks for Reassurance
13	Disapproves	13	Transition
14	Criticism	14	Orientation
15	Asks for Reassurance	15	Check
16	Transition	16	Bid for Repetition
17	Orientation	17	Asks for Understanding
18	Check	18	Asks for Opinion
19	Bid for Repetition	19	Closed-ended Questions: Medical
20	Asks for Understanding	20	Closed-ended Questions: Therapeutic Regime
21	Asks for Opinion	21	Closed-ended Questions: Lifestyle
22	Closed-ended Questions: Medical	22	Closed-ended Questions: Psycho-social
23	Closed-ended Questions: Therapeutic Regime	23	Closed-ended Questions: Other
24	Closed-ended Questions: Lifestyle	24	Open-ended Questions: Medical
25	Closed-ended Questions: Psycho-social	25	Open-ended Questions: Therapeutic Regime
26	Closed-ended Questions: Other	26	Open-ended Questions: Lifestyle
27	Open-ended Questions: Medical	27	Open-ended Questions: Psychosocial
28	Open-ended Questions: Therapeutic Regime	28	Open-ended Questions: Other
29	Open-ended Questions: Lifestyle	29	Gives information-Medical
30	Open-ended Questions: Psychosocial	30	Gives information: Therapeutic Regime
31	Open-ended Questions: Other	31	Gives information: Lifestyle
32	Gives information-Medical	32	Gives information-Psychosocial
33	Gives information: Therapeutic Regime	33	Gives information: Other
34	Gives information: Lifestyle	34	Asks for Service
35	Gives information: Other	35	Unintelligible
36	Counsels: Medical/Therapeutic Regimen		
37	Counsels-Lifestyle/Psychosocial		
38	Unintelligible		

Table 4.7: Mean and Standard deviation for number of utterances per category for each student Homoeopath and their patients.

	Student 1	**Student 2**	**Student 3**	**Student 4**	**Student 5**	**Student 6**
Homoeopath						
Mean	20.474	8.500	8.882	10.658	14.882	11.316
Standard Deviation	45.908	12.499	19.435	22.116	23.644	24.403
Patient						
Mean	35.900	10.886	11.243	9.486	21.671	20.729
Standard Deviation	93.856	27.279	41.883	37.530	60.705	65.369
		Student 7	**Student 8**	**Student 9**	**Student 10**	**Ave**
Homoeopath						
Mean		12.28947	20.474	8.868	14.77632	**13.112**
Standard Deviation		24.12933	37.191	16.017	23.83153	**24.917**
Patient						
Mean		13.15714	23.743	25.414	18.700	**19.093**
Standard Deviation		38.38002	67.088	70.290	54.030	**55.641**

The results from this table describe the central tendency of the number of utterances per category for both the students and the patients. The relatively low mean utterance occurrence per category and the high standard deviation reflect the distributed nature of the utterances across various categories. Both Homoeopaths and patients preferred certain categories to others and used these preferentially. The large range of utterance occurrence also expresses this fact.

Also noteworthy is the fact that the average of the patient utterance scores was higher than the average of the Homoeopath utterance scores. The average standard deviation of the patient utterances was also significantly higher than (more than double) that of the Homoeopaths. This reflected the fact that

The results also indicate that on average the patients used more utterances than the Homoeopaths. The higher average standard deviation also reflects the wider spread of utterance occurrence for the patient group. The patients tended to use the information giving channels to a far higher degree relative to the other categories of utterances. Patients used these channels almost exclusively. (See Figs 4.3 and 4.4). The most commonly used utterance categories were the Gives Medical Information, Gives Life-style Information and Gives Psychosocial Information Categories.

4.5.2 Intra-group Comparison: Spearman's Rank Ordered Co-efficient

In terms of the objective 3 described in the introduction, the relationship between the communication of student homoeopaths and the communication patterns of their patients was explored. This was done by hypothesis testing using Spearman's Rank Ordered Correlation Co-efficient. The level of significance was set at 5% i.e. $p <= 0.05$.

4.5.2.1 Hypothesis testing

Null hypothesis 1: There was no significant correlation between the number of utterances in a particular homoeopath utterance category and the number of utterances in any patient utterance category.

Alternative hypothesis 1: There was a significant correlation between the number of utterances in a particular homoeopath utterance category and the number of utterances in a particular patient utterance category.

Significant correlations were established i.e. H0 was rejected for certain categories. The significant correlations are shown in Table 4.8.
Non-significant values are indicated by "N.S.", while significant correlations are indicated by marking z- and p-values.

Table 4.8 Spearman's Rank ordered Correlation co-efficient for Correlation of student Homoeopath utterance super-categories to Patient utterance super-categories.

Physician Super-categories	Patient Super-categories						
	Social	Positive	Negative	Emotional	Partnership	Open–ended biomedical questions	Open-ended Psycho-social questions
Social	Z=.749 P=.000	NS	NS	NS	NS	NS	NS
Positive	Z=.506 P=.023	Z=.479 P=.032	NS	NS	NS	NS	NS
Negative	Z=.462 P=.040	NS	NS	Z=.739 P=.000	Z=.612 P=.004	NS	NS
Emotional	NS	Z=.648 P=.002	NS	Z=.814 P=.000	Z=.648 P=.002	NS	NS
Facilitation	NS	Z=.654 P=.002	Z=.570 P=.009	Z=.636 P=.003	NS	NS	NS
Partnership	NS	Z=.495 P=.027	NS	Z=.475 P=.034	NS	NS	NS
Orientation	NS	NS	NS	NS	NS	NS	NS
Open-ended biomedical questions	NS	NS	NS	NS	NS	NS	NS
Open-ended psycho-social questions	NS	NS	NS	NS	NS	NS	NS
Closed-ended biomedical questions	NS	NS	NS	NS	NS	NS	NS
Closed-ended psycho-social questions	NS	NS	Z=-.477 Z=.034	NS	NS	NS	NS
Biomedical information giving	NS	NS	Z=.513 P=.021	NS	NS	NS	NS
Psycho-social information giving	Z=.484 P=.031	Z=.451 p=.046	NS	Z=.445 P=.049	NS	NS	NS
Biomedical counselling	NS	NS	NS	NS	NS	NS	NS
Psycho-social counselling	NS	Z=.647 P=.002	NS	Z=.654 P=.002	Z=.521 P=.018	NS	Z=.448 P=.048
Other	NS	Z=.794 P=.000	NS	Z=.574 P=.008	Z=.497 P=.026	NS	Z=.523 P=.018

Physician Super-Categories	Patient Super-categories				
	Closed-ended Biomedical questions	Closed-ended Psychosocial questions	Biomedical information giving	Psychosocial Information Giving	Other
Social	NS	NS	NS	NS	Z=.447 P=.048
Positive	NS	Z=.563 p=.010	NS	Z=.558 p=.011	Z=.457 P=.043
Negative	Z=.650 P=.002	NS	NS	NS	NS
Emotional	Z=.455 P=.044	NS	NS	NS	NS
Facilitation	NS	NS	NS	Z=.507 P=.022	Z=.495 P=.027
Partnership	NS	NS	NS	NS	NS
Orientation	NS	NS	NS	NS	NS
Open-ended biomedical questions	NS	NS	NS	NS	NS
Open-ended psycho-social questions	NS	NS	NS	Z=.491 P=.028	NS
Closed-ended biomedical questions	NS	NS	NS	NS	NS
Closed-ended psycho-social questions	NS	Z=-.465 P=.039	NS	NS	NS
Biomedical information giving	Z=.680 P=.001	NS	NS	NS	NS
Psycho-social information giving	NS	NS	NS	Z=.476 P=.034	Z=.535 P=.015
Biomedical counselling	NS	NS	NS	NS	NS
Psycho-social counselling	NS	NS	NS	Z=.506 P=.023	Z=.471 P=.036
Other	NS	NS	NS	Z=.491 P=.028	Z=.460 P=.041

4.5.2.2 Statement of Correlations

Homoeopath Social talk was significantly correlated to patient Social talk and Patient Other Information Giving.

Homoeopath Positive Talk was significantly correlated to patient Social talk, patient Positive talk, patient Closed-ended Psychosocial questions, patient Psychosocial Information Giving, patient Other Information Giving.

Homoeopath Negative talk was significantly correlated to patient Social talk, patient Emotional talk, patient Partnership building and patient Closed-ended Biomedical questions.

Homoeopath Emotional talk was significantly correlated to patient Positive talk, patient Emotional talk, patient Partnership building and patient Closed-ended Biomedical questions.

Homoeopath Facilitation was significantly correlated to patient Positive talk, patient Negative talk, patient Emotional talk, patient Psychosocial Information Giving and patient Other Information Giving.

Homoeopath Partnership building was significantly correlated to patient Positive talk and patient Emotional talk.

Homoeopath Closed-ended Psychosocial questioning was significantly correlated to patient Negative talk and patient Closed-ended Psychosocial questioning.

Homoeopath Biomedical Information Giving was significantly correlated to patient Negative talk and patient Closed-ended Biomedical questions.

Homoeopath Psychosocial Information Giving was significantly correlated to patient Social talk, patient Positive talk, patient Emotional talk, patient Psychosocial Information Giving and patient Other Information Giving.

Homoeopath Psychosocial Counselling was significantly correlated to patient Positive talk, patient Emotional talk, patient Partnership Building, patient Open-ended Psychosocial questioning, patient Psychosocial Information Giving and patient Other Information Giving.

Homoeopath Other Information Giving was significantly correlated to patient Positive talk, patient Emotional talk, patient Partnership building, patient Open-ended Psychosocial questioning, patient Psychosocial Information Giving and patient Other Information Giving.

4.5.3 Verbal Dominance Rating

A verbal Dominance Score was derived from the data by dividing the total patient utterances by the total number of Homoeopath utterances. The Verbal Dominance scores for each of the students are given in Table 4.9.

Table 4.9: Verbal Dominance in the homoeopathic Consultation: Student Group

	Patient utterances/Homoeopath Utterances	**Verbal Dominance (Ratio of Homoeopath utterance to Patient Utterance)**
Student 1	1.628367	1:1.63
Student 2	1.214181	1:1.21
Student 3	1.10959	1:1.11
Student 4	0.875388	1:0.88
Student 5	1.350804	1:1.35
Student 6	1.628871	1:1.63
Student 7	0.981595	1:0.99
Student 8	1.2785	1:1.28
Student 9	2.626244	1:2.63
Student 10	1.157055	1:1.16
Mean	**1.385059**	**1:1.39**

This table reflects the understanding that the homoeopathic practitioner has less input on a verbal level than the patient. The Lowest ratio of dominance was 1:0.88 while the highest was 1:2.63. Thus for every utterance by the Homoeopath the patient contributed between 0.88 and 2.63 utterances. Table 4.10 shows the central tendency of these utterance ratios.

Table 4.10. Mean and SD of the Verbal Dominance Scores

Mean	1.385059
Standard Deviation	0.500147

The above table shows that the mean verbal dominance ratios are fairly closely distributed about the 1:1.38 ratio. i.e. for every 1 average utterance by the homoeopath the patient contributes 1.38 utterances.

4.5.4 Revised Verbal Dominance

A large component of the Homoeopaths' verbal input (both student and qualified practitioners) is the Back Channel category. These are the 'lubricant of communication' (Roter et al., 1999) and do not contribute greatly to the factual information exchange or time dominance of communication. In order to take this into account a revised Verbal Dominance rating is used. This comprises the total number of patient utterances divided by the total number of Homoeopath utterances less the number of utterances in the Back Channel (B/C) category.

This revised Verbal Dominance ratio was 1.65 for the student group. Thus taking the B/C utterances out of the equation increased the mean ratio of Homoeopath to patient utterances from 1:1.38 to 1:1.65. For every one student Homoeopath utterance 1.65 patient utterances occur.

4.5.5 Question Asking Patterns

The ratio of Homoeopath open ended questions to closed ended questions

This ratio was calculated by dividing the total open ended question occurrences by the total closed ended question occurrences. (Ford et al. 1996: 1511).

$$R_{Qu\text{-}asking} = \frac{Tot\{Hom(Open\text{-}ended\ Questions)\}}{Tot\{Hom(Closed\text{-}ended\ Questions)\}}$$

The ratio was 0.63. Thus for every open ended question asked nearly two closed ended questions were asked.

4.5.6 Patient Direction as opposed to Homoeopath Direction of the Consultation

This ratio of effective communication control was based on patient's biomedical questions and Homoeopaths biomedical information giving utterances divided by Homoeopaths' closed biomedical questions, directions and patients' biomedical information giving.

$$R_{Direction} = \frac{Hom(Biomed\ Info) + Pat(Biomed\ Questions)}{Hom(Closed\text{-}ended\ biomed\ qu) + Hom(Orient) + Pat(Biomed\ Info)}$$

This ratio was 0.10. This low score indicated that although verbally dominant to a large degree, the patients were generally not in control of the consultation flow, content or direction. (Ford et al. 1996: 1511).

4.5.7 Patient Centeredness Score

This ratio comprised all patient's questions, psychosocial/lifestyle discussions, Homoeopaths partnership building statements and psychosocial/lifestyle discussion divided by homeopaths closed questions, biomedical information giving and patient's biomedical information giving. (Ford et al. 1996: 1511).

$$R_{P\text{-}Centred} = \frac{Pat(All\ qu) + Pat(P\text{-}S\ Info) + Pat(L\text{-}S\ Info) + Hom(Partner) + Hom(P\text{-}S\ Info) + Hom(L\text{-}S\ Info)}{Hom(Closed\ Qu - Biomed) + Hom(Biomed\ info) + Pat(Biomed\ Info)}$$

The Patient centeredness score was 0.85. This indicated a high degree of patient centeredness (as defined in the literature review).

4.5.8 Psychosocial Exchange as opposed to Biomedical Exchange

To estimate this ratio of the consultations the number of Psychosocial and Lifestyle utterances of both patient and Homoeopath was divided by the number of Medical and Therapeutic utterances. (Ford et al., 1996:1511).

$$R_{P\text{-}S \text{ vs } Biomed} = \frac{Pat(P\text{-}S/L\text{-}S \text{ Info}) + Hom(P\text{-}S/L\text{-}S \text{ Info})}{Hom(Biomed \text{ Info}) + Pat(Biomedical \text{ Info})}$$

The ratio of psychosocial utterances to biomedical utterances was 1.02. i.e. for every 1 biomedical utterance there were 1.02 occurrences of Psychosocial utterances. This indicates an even focus on both domains of the patients' experience of illness.

4.6 Practitioner Group

4.6.1 Descriptive statistics

Table 4.11 :Gender Distribution of Practitioner Group

Gender	
Male	5
Female	5

4.6.1.1 Analysis using super-categories

Table 4.12: Category Breakdown of Total Utterances: Practitioner Group

Patient Categories	%*	N†	Homoeopath Categories	%*	N†
Socioemotional/Affective Exchange					
Social talk	1.6	204	Social talk	0.9	101
Positive Talk	8.1	1035	Positive Talk	19.4	2181
Negative talk	0.4	56	Negative talk	0.3	37
Emotional Responsiveness	0.9	119	Emotional Responsiveness	3.2	355
			Facilitation	21.7	2445
Partnership building	1.2	152	Partnership Building	6.0	670
Open Questions – biomedical	0.2	23	Orientation	2.4	269
Open Questions – psychosocial	0.0	0	Open Questions – biomedical	3.1	350
Closed Questions – biomedical	0.5	58	Open Questions – psychosocial	6.6	740
Closed questions – psychosocial	0.0	4	Closed Questions – biomedical	11.9	1337
Biomedical Info	35.6	4528	Closed questions – psychosocial	3.6	407
Psychosocial Info	49.6	6306	Biomedical Info	12.5	1404
Other	1.7	222	Psychosocial Info	1.4	161
			Biomedical Counselling	1.9	218
			Psychosocial Counselling	2.6	289
			Other	2.6	288
Total Patient Utterances	53.1‡	12707	Total Homoeopath Utterances	46.9‡	11252

* Percentages given are percentages of only the utterances by the individual (patient or practitioner). i.e. 34% is 34 % of Patient utterances.

† N refers to the number of utterances in each super-category.
‡ The total percentage is the percentage of the total number of utterances contributed to the consultation by the individual i.e. 57.3% of the total number of utterances made were contributed by patient.

Note that the number of patient utterances is larger than the number of homoeopath utterances but the two utterance levels are closer than the student group.

Similarly to the student group the three patient categories Positive talk (8.1%), Biomedical Information giving (35.6%), and Psychosocial information giving (49.6%) account for nearly 94% of the patient utterances.

Homoeopath utterances are again more evenly spread with Positive talk (19.4%), Facilitation (21.7%), Closed-ended biomedical questions (11.9%) and Biomedical information giving (12.5%) accounting for nearly 68% of homoeopath utterances.

The figures contained in the table above are represented graphically by Figures 4.5, 4.6 and 4.7 following.

Fig 4.5 Super-category breakdown of Patient utterances: Practitioner group

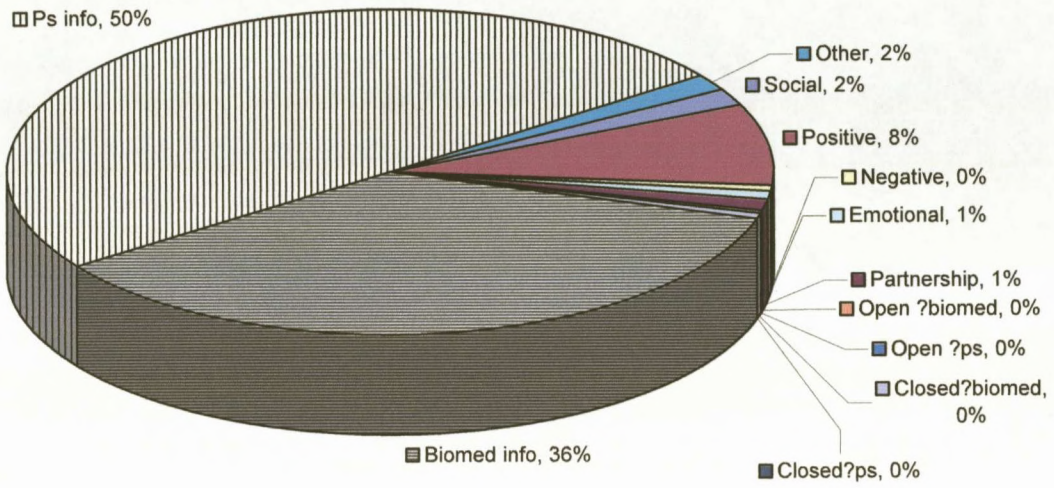
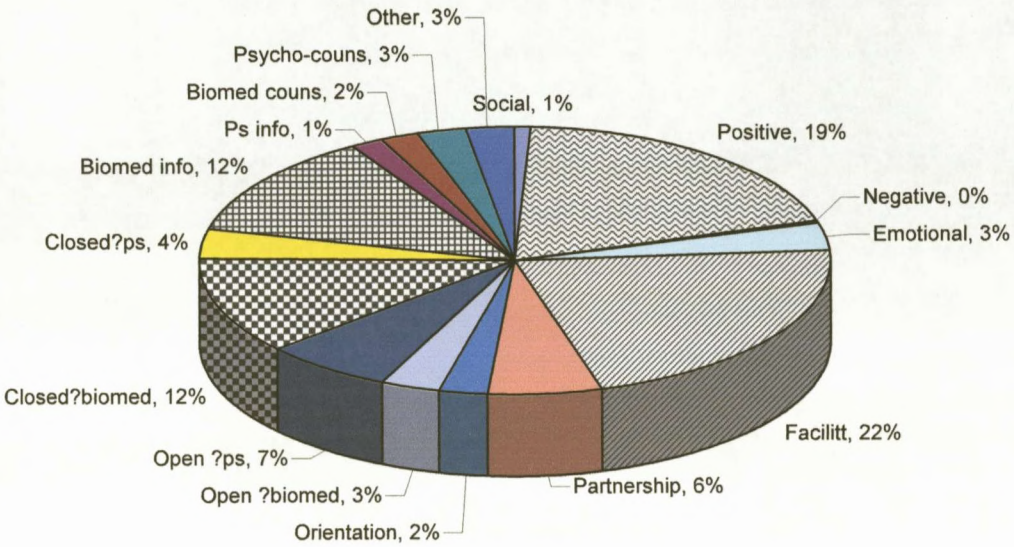


Fig 4.6 Super-category breakdown of Homoeopath utterances: Practitioner group



The relative frequency distribution for utterances in each super-category is represented by Fig 4.7.

Fig 4.7 Relative frequency of utterance super-categories: practitioner group

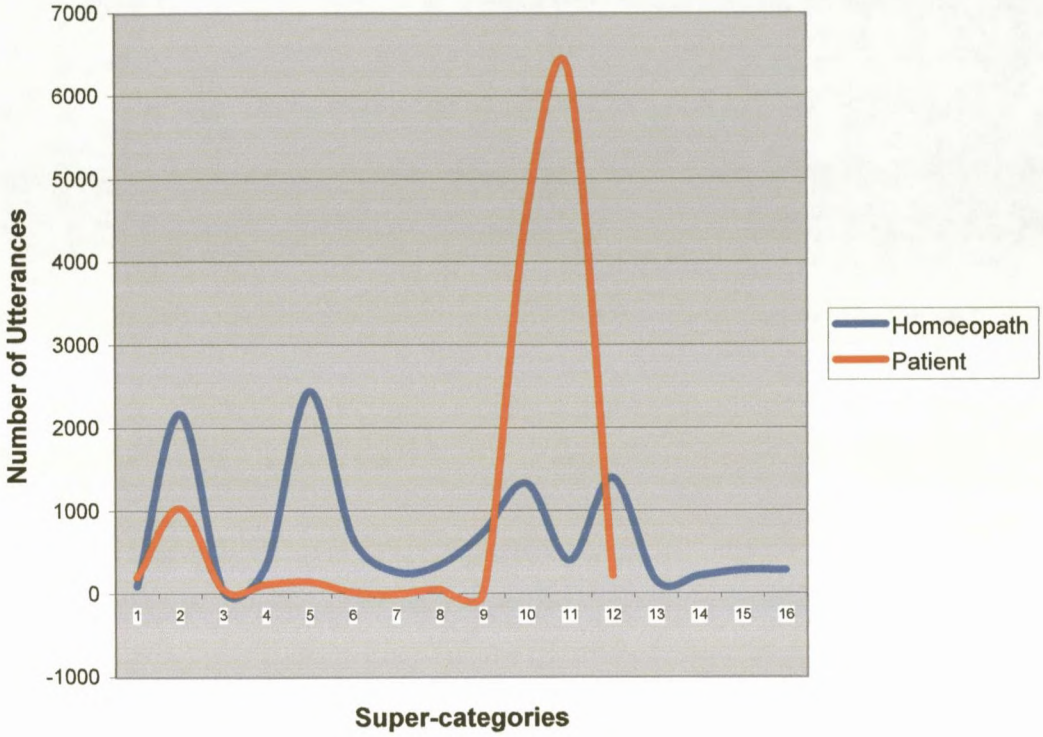


Table 4.13 Key to Super-categories.

Patient Categories		Homoeopath Categories	
1	Social talk	1	Social talk
2	Positive Talk	2	Positive talk
3	Negative talk	3	Negative talk
4	Emotional Responsiveness	4	Emotional Responsiveness
5	Partnership building	5	Facilitation
6	Open-ended Questions – biomedical	6	Partnership building
7	Open-ended Questions – psychosocial	7	Orientation
8	Closed-ended Questions – biomedical	8	Open-ended Questions- Biomedical
9	Closed-ended questions – psychosocial	9	Open-ended questions - Psychosocial
10	Biomedical Info	10	Closed-ended Questions - Biomedical
11	Psychosocial Info	11	Closed-ended Questions - Psychosocial
12	Other	12	Biomedical Information Giving
		13	Psychosocial Information Giving
		14	Biomedical Counselling
		15	Psychosocial Counselling
		16	Other

In this figure we see a graphic representation of the prevalence of certain super-categories. The Homoeopath graph shows peaks at points 2, 5, 10 and

12. These correspond to Positive talk, Facilitation, Closed-ended Biomedical questions and Biomedical Information Giving respectively.

The Patient graph peaks at points 10 and 11, corresponding to Biomedical Information Giving and Psychosocial Information Giving.

4.6.1.2 Analysis using individual Roter Categories

As for the student group, analysis was conducted with the individual Roter categories rather than the super-categories. This is supplemental to the previous section's analysis.

Table 4.14: Mean and standard deviation values for each Homoeopath and Patient Utterance category for the Practitioner Group

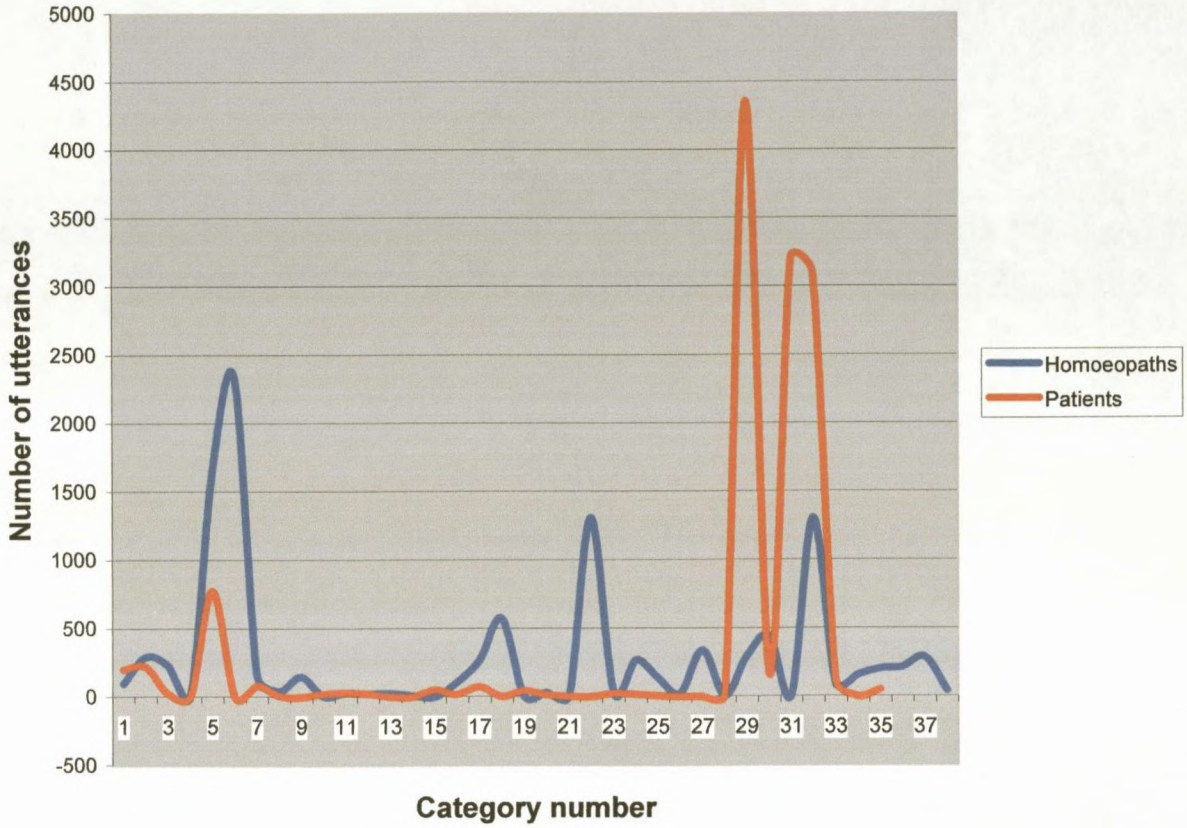
Homoeopath Utterance Categories	Mean	Standard Deviation	Patient Utterance Categories	Mean	Standard Deviation
Personal	5.05	7.65	Personal	10.20	14.01
Laughs	14.70	9.64	Laughs	11.20	11.00
Approves	11.60	13.24	Approves	1.35	2.23
Compliment	0.55	1.39	Compliment	0.30	1.13
Agree/understand	82.20	47.32	Agree/understand	38.90	31.77
Back Channel	116.90	167.20	Empathy	0.00	0.00
Empathy	7.70	8.07	Concern	4.20	6.03
Concern	2.20	3.53	Reassures/Shows Optimism	0.50	1.10
Reassures/Shows Optimism	7.50	6.79	Legitimises	0.00	0.00
Legitimises	0.30	0.66	Disapproves	1.20	1.82
Partnership	1.50	1.79	Criticism	1.60	4.01
Self Disclosure	1.20	1.94	Asks for Reassurance	1.25	1.86
Disapproves	1.35	1.66	Transition	0.10	0.31
Criticism	0.50	1.19	Orientation	0.05	0.22
Asks for Reassurance	0.05	0.22	Check	2.60	3.91
Transition	5.35	2.98	Bid for Repetition	1.00	1.49
Orientation	13.45	11.26	Asks for Understanding	3.75	4.02
Check	28.75	16.96	Asks for Opinion	0.15	0.49
Bid for Repetition	0.25	0.64	Closed-ended Questions: Medical	2.20	2.53
Asks for Understanding	1.60	3.20	Closed-ended Questions: Therapeutic Regime	0.70	2.45

			Questions: Therapeutic Regime		
Asks for Opinion	0.20	0.41	Closed-ended Questions: Lifestyle	0.15	0.49
Closed-ended Questions: Medical	65.45	32.30	Closed-ended Questions: Psycho-social	0.05	0.22
Closed-ended Questions: Therapeutic Regime	1.40	1.27	Closed-ended Questions: Other	1.25	3.81
Closed-ended Questions: Lifestyle	13.40	11.19	Open-ended Questions: Medical	0.80	1.32
Closed-ended Questions: Psycho-social	6.95	5.20	Open-ended Questions: Therapeutic Regime	0.35	0.93
Closed-ended Questions: Other	1.25	1.33	Open-ended Questions: Lifestyle	0.00	0.00
Open-ended Questions: Medical	17.15	12.90	Open-ended Questions: Psychosocial	0.00	0.00
Open-ended Questions: Therapeutic Regime	0.35	0.49	Open-ended Questions: Other	0.65	1.87
Open-ended Questions: Lifestyle	14.90	36.24	Gives information-Medical	218.00	91.44
Open-ended Questions: Psychosocial	22.10	21.63	Gives information: Therapeutic Regime	8.40	14.06
Open-ended Questions: Other	0.60	1.47	Gives information: Lifestyle	160.45	234.12
Gives information-Medical	65.45	62.55	Gives information-Psychosocial	154.85	151.26
Gives information: Therapeutic Regime	4.75	8.83	Gives information: Other	6.35	9.77
Gives information: Lifestyle	8.05	16.81	Asks for Service	0.20	0.62
Gives information: Other	10.25	25.27	Unintelligible	2.60	2.60
Counsels: Medical/Therapeutic Regimen	10.90	13.49			
Counsels-Lifestyle/Psychosocial	14.45	33.33			
Unintelligible	2.30	2.83			

Note the high incidence of the following Homoeopath utterances: Agree/understand (mean 82.20), Back channel (mean 116.90), Check (mean28.75), Orient (mean 13.45), Closed-ended Medical questions (mean 65.45), Open-ended Psychosocial Questions (mean 22.10) and Medical Information giving (mean 65.45).

These figures are represented graphically in Fig 4.8.

Fig 4.8 Utterance Frequency Distribution by Category: Practitioner Group



The frequency distribution for the Homoeopath utterances in the practitioner group is fairly similar to the Student group. The first spike for the Homoeopath utterances occurs at the area of the Agree/Understand (point 5) and Back Channel (point 6) categories. This represents those utterances that are designed to facilitate the flow of conversation- showing agreement or understanding and/or showing the patient that they are being listened to. The next spike (points 17and 18) represents the use of Check and Orient utterances. The area of the curve between point 21 and 33 represents the Question-asking and Information giving area of the exchange. Numerous spikes indicate the different categories of questions asked by the Homoeopaths as well as the types of information given in the consultation. There is a marked

Question-asking and Information giving area of the exchange. Numerous spikes indicate the different categories of questions asked by the Homoeopaths as well as the types of information given in the consultation. There is a marked difference to the student group in the volume under the area of points 31 to 37. These represent the information giving categories indicating that the practitioners were more inclined to give information and counsel behaviour than the student group.

The patient utterance distribution graph shows some differences to the practitioner curve. The occurrence of utterances is fairly low until point 30 -34. These represent the information giving categories. The patients in consultation with practitioners rely heavily on information giving utterances.

Table 4.15 Key to Individual Roter Categories

Homoeopath Utterance Categories		Patient Utterance Categories	
1	Personal	1	Personal
2	Laughs	2	Laughs
3	Approves	3	Approves
4	Compliment	4	Compliment
5	Agree/understand	5	Agree/understand
6	Back Channel	6	Empathy
7	Empathy	7	Concern
8	Concern	8	Reassures/Shows Optimism
9	Reassures/Shows Optimism	9	Legitimises
10	Legitimises	10	Disapproves
11	Partnership	11	Criticism
12	Self Disclosure	12	Asks for Reassurance
13	Disapproves	13	Transition
14	Criticism	14	Orientation
15	Asks for Reassurance	15	Check
16	Transition	16	Bid for Repetition
17	Orientation	17	Asks for Understanding
18	Check	18	Asks for Opinion
19	Bid for Repetition	19	Closed-ended Questions: Medical
20	Asks for Understanding	20	Closed-ended Questions: Therapeutic Regime
21	Asks for Opinion	21	Closed-ended Questions: Lifestyle
22	Closed-ended Questions: Medical	22	Closed-ended Questions: Psycho-social
23	Closed-ended Questions: Therapeutic Regime	23	Closed-ended Questions: Other
24	Closed-ended Questions: Lifestyle	24	Open-ended Questions: Medical
25	Closed-ended Questions: Psycho-social	25	Open-ended Questions: Therapeutic Regime
26	Closed-ended Questions: Other	26	Open-ended Questions: Lifestyle
27	Open-ended Questions: Medical	27	Open-ended Questions: Psychosocial

28	Open-ended Questions: Therapeutic Regime	28	Open-ended Questions: Other
29	Open-ended Questions: Lifestyle	29	Gives information-Medical
30	Open-ended Questions: Psychosocial	30	Gives information: Therapeutic Regime
31	Open-ended Questions: Other	31	Gives information: Lifestyle
32	Gives information-Medical	32	Gives information-Psychosocial
33	Gives information: Therapeutic Regime	33	Gives information: Other
34	Gives information: Lifestyle	34	Asks for Service
35	Gives information: Other	35	Unintelligible
36	Counsels: Medical/Therapeutic Regimen		
37	Counsels-Lifestyle/Psychosocial		
38	Unintelligible		

Table 4.16: Mean and Standard deviation for number of utterances per category for each qualified homoeopath and their patients.

	Practitioner 1	**Practitioner 2**	**Practitioner 3**	**Practitioner 4**	**Practitioner 5**	**Practitioner 6**
Homoeopath						
Mean	19.59	11.63	15.75	11.11	16.21	26.07
Standard Deviation	43.17	20.39	20.71	24.88	23.81	86.23
Patient						
Mean	15.67	17.23	28.01	8.53	26.64	28.57
Standard Deviation	54.09	50.84	83.66	26.51	72.81	97.30
		Practitioner 7	**Practitioner 8**	**Practitioner 9**	**Practitioner 10**	**Ave**
Homoeopath						
Mean		17.57	9.75	8.16	12.22	14.81
Standard Deviation		38.48	21.05	14.56	21.66	31.49
Patient						
Mean		13.00	12.20	17.69	13.99	18.15
Standard Deviation		42.97	40.86	59.31	40.83	56.92

This table describes the central tendency of the number of utterances per category for both the practitioners and their patients. Similarly to the student group, the relatively low mean utterance occurrence per category and the high standard deviation reflect the distributed nature of the utterances across various specific categories. Both Homoeopaths and patients preferred certain categories to others and used these preferentially.

4.6.2 Intra-group Comparison: Spearman's Rank ordered Co-efficient

In terms of objective 4 described in the introduction (§4.1) the relationship between the communication patterns of homoeopaths and the communication patterns of their patients was explored. This was done by hypothesis testing using Spearman's Rank Ordered Correlation Co-efficient. The level of significance was set at 5% i.e. $p<=0.05$ for statistical significance.

4.6.2.1 Hypothesis testing

Null hypothesis 2: There was no significant correlation between the number of utterances in a particular homoeopath utterance category and the number of utterances in any patient utterance category.

Alternative hypothesis 2: There was a significant correlation between the number of utterances in a particular homoeopath utterance category and the number of utterances in a particular patient utterance category.

Significant correlations were established i.e. H_0 was rejected for certain categories. The significant correlations are shown in Table 4.17.
Non-significant values are indicated by "N.S.", while significant correlations are indicated by marking z- and p-values.

Table 4.17 Spearman's Rank ordered Correlation co-efficient for Correlation of Homoeopath utterance super-categories to Patient utterance super-categories.

Homoeopath Super-categories	**Patient Super-categories**						
	Social	**Positive**	**Negative**	**Emotional**	**Partnership**	**Open–ended biomedical questions**	**Open-ended Psycho-social questions**
Social	Z=.821 P=.000	NS	NS	NS	NS	NS	NS
Positive	NS	NS	NS	NS	NS	NS	NS
Negative	NS	NS	NS	NS	NS	NS	NS
Emotional	NS	Z=.554 P=.011	NS	NS	NS	NS	NS
Facilitation	NS	NS	NS	NS	NS	NS	NS
Partnership	NS	Z=.641 P=.002	NS	Z=.514 P=.021	NS	Z=.524 P=.018	NS
Orientation	NS	NS	NS	Z=.485 P=.030	NS	NS	NS
Open-ended biomedical questions	NS	NS	NS	NS	NS	NS	NS
Open-ended psycho-social questions	NS	NS	NS	NS	NS	NS	NS
Closed-ended biomedical questions	NS	NS	NS	NS	NS	NS	NS
Closed-ended psycho-social questions	NS	NS	NS	NS	NS	NS	NS
Biomedical information giving	NS	NS	NS	NS	NS	NS	NS
Psycho-social information giving	NS	NS	NS	NS	NS	NS	NS
Biomedical counselling	NS	NS	NS	NS	NS	NS	NS
Psycho-social counselling	NS	NS	NS	NS	Z=0.612 P=.004	NS	NS
Other	Z=.469 P=.037	NS	NS	NS	NS	Z=.467 P=.038	NS

Homoeopath Super- categories	Patient Super-categories				
	Closed-ended Biomedical questions	Closed-ended Psychosocial questions	Biomedical information giving	Psychosocial Information Giving	Other
Social	NS	NS	NS	NS	NS
Positive	NS	Z=.481 P=.032	NS	NS	NS
Negative	NS	NS	NS	NS	NS
Emotional	NS	NS	NS	NS	NS
Facilitation	NS	NS	NS	NS	NS
Partnership	NS	NS	NS	NS	NS
Orientation	NS	NS	NS	NS	z=.508 p=.022
Open-ended biomedical questions	NS	NS	NS	NS	NS
Open-ended psycho-social questions	NS	NS	NS	NS	NS
Closed-ended biomedical questions	NS	NS	NS	NS	NS
Closed-ended psycho-social questions	NS	NS	NS	z=.448 p=.048	z=.446 p=.049
Biomedical information giving	NS	Z=.616 P=.004	NS	NS	z=.538 p=.014
Psycho-social information giving	NS	NS	NS	NS	
Biomedical counselling	NS	NS	NS	NS	z=.557 p=.011
Psycho-social counselling	NS	NS	NS	NS	NS
Other	NS	NS	NS	NS	NS

4.6.2.1 Statement of Correlations

Homoeopath Social talk was significantly correlated to patient Social talk.

Homoeopath Positive talk was significantly correlated to patient Closed-ended Psychosocial questioning.

Homoeopath Emotional talk was significantly correlated to patient Positive talk.

Homoeopath Partnership building was significantly correlated to patient Positive talk, patient Emotional talk and patient Open-ended Biomedical questioning.

Homoeopath Orientation was significantly correlated to patient Emotional talk, and patient Other Information Giving.

Homoeopath Closed-ended Psychosocial questioning was significantly correlated to patient Psychosocial Information Giving and patient Other Information Giving.

Homoeopath Biomedical Counselling was significantly correlated to patient Closed-ended Psychosocial questioning and patient Other Information Giving.

Homoeopath Psychosocial Counselling was significantly correlated to patient Partnership building.

Homoeopath Other Information Giving was significantly correlated to patient Social talk and patient Open-ended Biomedical questioning.

4.6.3 Verbal Dominance Rating

A verbal Dominance Score for the practitioner group was derived from the data by dividing the total number of patient utterances by the total number of

Homoeopath utterances. The Verbal Dominance scores for each of the practitioners are given in Table 4.18.

Table 4.18: Verbal Dominance in the homoeopathic Consultation: Practitioner Group

	Patient utterances/Homoeopath Utterances	**Verbal Dominance (Ratio of Homoeopath utterance to Patient Utterance)**
Practitioner 1	0.76	1:.76
Practitioner 2	0.73	1:73
Practitioner 3	1.36	1:1.36
Practitioner 4	1.64	1:1.64
Practitioner 5	0.71	1:0.71
Practitioner 6	1.50	1:1.50
Practitioner 7	0.98	1:0.98
Practitioner 8	0.66	1:0.66
Practitioner 9	1.18	1:1.18
Practitioner 10	2.65	1:2.65
Mean	**1.20**	**1:1.20**

This table again reflects the understanding that the homoeopathic practitioner has less input on a verbal level than the patient. The ratio however was lower than for the student group i.e. the practitioner group had more verbal input than the student group in relation to the patients. The Lowest ratio of dominance was 1:0.66 while the highest was 1:1.64. Thus for every utterance by a Homoeopath the patient contributed between 0.66 and 1.64 utterances. Table 4.19 shows the central tendency of these utterance ratios.

Table 4.19. Mean and SD of the Verbal Dominance Scores

Mean	1.20
Standard Deviation	0.59

This indicates that the data are not closely distributed around the mean.

4.6.4 Revised Verbal Dominance

This comprises the total number of patient utterances divided by the total number of Homoeopath utterances less the number of utterances in the Back Channel category.

This revised Verbal Dominance ratio was mean 3.00 for the practitioner group. Thus taking the Back Channel utterances out of the equation increased the mean ratio of Homoeopath to patient utterances from 1:1.20 to 1:3.00. For every one practitioner utterance 3.00 patient utterances occur.

4.6.5 Question asking Patterns

The ratio of Homoeopath open ended questions to closed ended questions was calculated by dividing the total open ended question occurrences by the total closed ended question occurrences. (Ford et al., 1996: 1511).

$$R_{Qu\text{-}asking} = \frac{Tot\{Hom(Open\text{-}ended\ Questions)\}}{Tot\{Hom(Closed\text{-}ended\ Questions)\}}$$

The ratio was 0.62 Thus for every open ended question asked nearly two closed ended questions were asked.

4.6.6 Patient Direction as opposed to Homoeopath Direction of the Consultation

This ratio of effective communication control was based on patient's biomedical questions and Homoeopaths biomedical information giving utterances divided by Homoeopaths' closed biomedical questions, directions and patients' biomedical information giving. (Ford et al. 1996: 1511; Roter et al. 2000: 3477)

$$R_{Direction} = \frac{Hom(Biomed\ Info) + Pat(Biomed\ Questions)}{Hom(Closed\text{-}ended\ biomed\ qu) + Hom(Orient) + Pat(Biomed\ Info)}$$

This ratio was 0. 24. This low score indicated that although slightly more verbally dominant, the patients were generally not in control of the consultation flow, content or direction.

4.6.7 Patient Centeredness Score

This ratio comprised all patient's questions, psychosocial/lifestyle discussions, Homoeopaths partnership building statements and psychosocial/lifestyle discussion divided by Homoeopaths closed questions biomedical information giving and patient's biomedical information giving. (Ford et al., 1996: 1511).

$$R_{P\text{-}Centred} = \frac{Pat(All\ qu) + Pat(P\text{-}S\ Info) + Pat(L\text{-}S\ Info) + Hom(Partner) + Hom(P\text{-}S\ Info) + Hom(L\text{-}S\ Info)}{Hom(Closed\ Qu - Biomed) + Hom(Biomed\ info) + Pat(Biomed\ Info)}$$

The Patient centeredness score was 0.96. This indicated a high degree of patient centeredness (as defined in the literature review). The degree of patient centeredness was greater than in the student group.

4.6.8 Psychosocial Exchange as opposed to Biomedical Exchange

To estimate this ratio in the consultations the number of Psychosocial and Lifestyle utterances of both patient and Homoeopath was divided by the number of Medical and Therapeutic utterances. (Ford et al. 1996).

$$R_{P\text{-}S\ vs\ Biomed} = \frac{Pat(P\text{-}S/L\text{-}S\ Info) + Hom(P\text{-}S/L\text{-}S\ Info)}{Hom(Biomed\ Info) + Pat(Biomedical\ Info)}$$

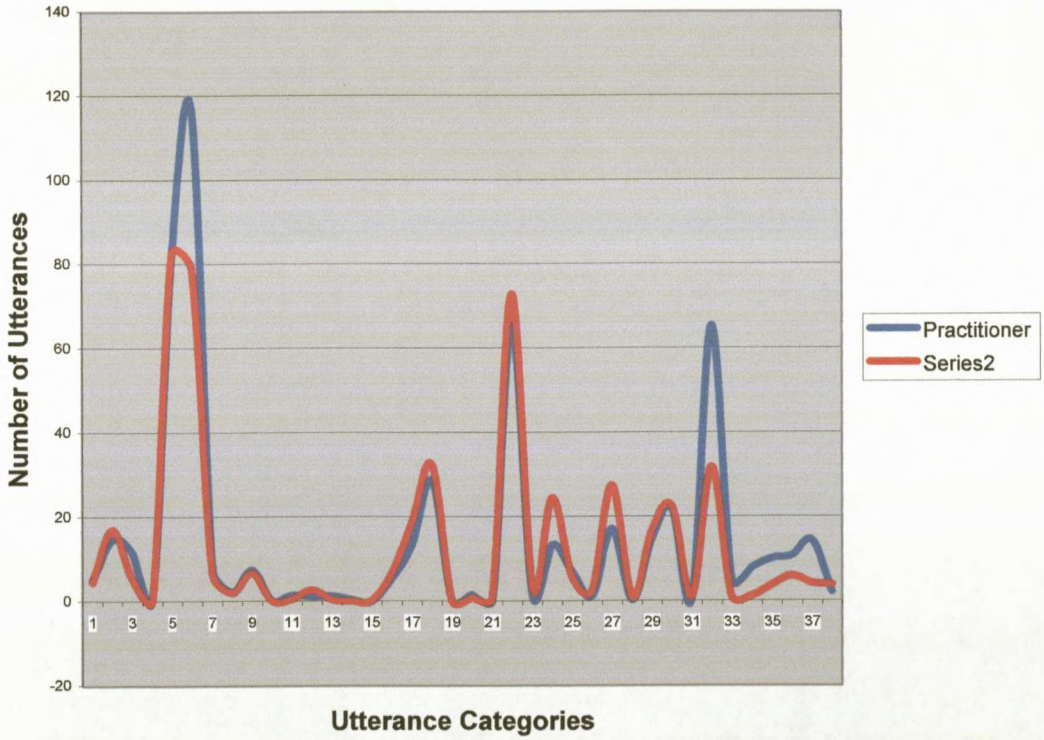
The ratio of psychosocial utterances to biomedical utterances was 1.14. i.e. for every 1 biomedical utterance there were 1.14 occurrences of Psychosocial utterances. This indicates an even focus on both domains of the patients' experience of illness.

4.7 Inter-group analysis

4.7.1 Descriptive Comparison

In terms of Objective 5 in the introduction (4.1) the Practitioner group's communication patterns and Student group's communication patterns were compared.

Fig 4.9: Relative frequency distribution showing comparison of Utterances by Homoeopaths: Student and practitioner

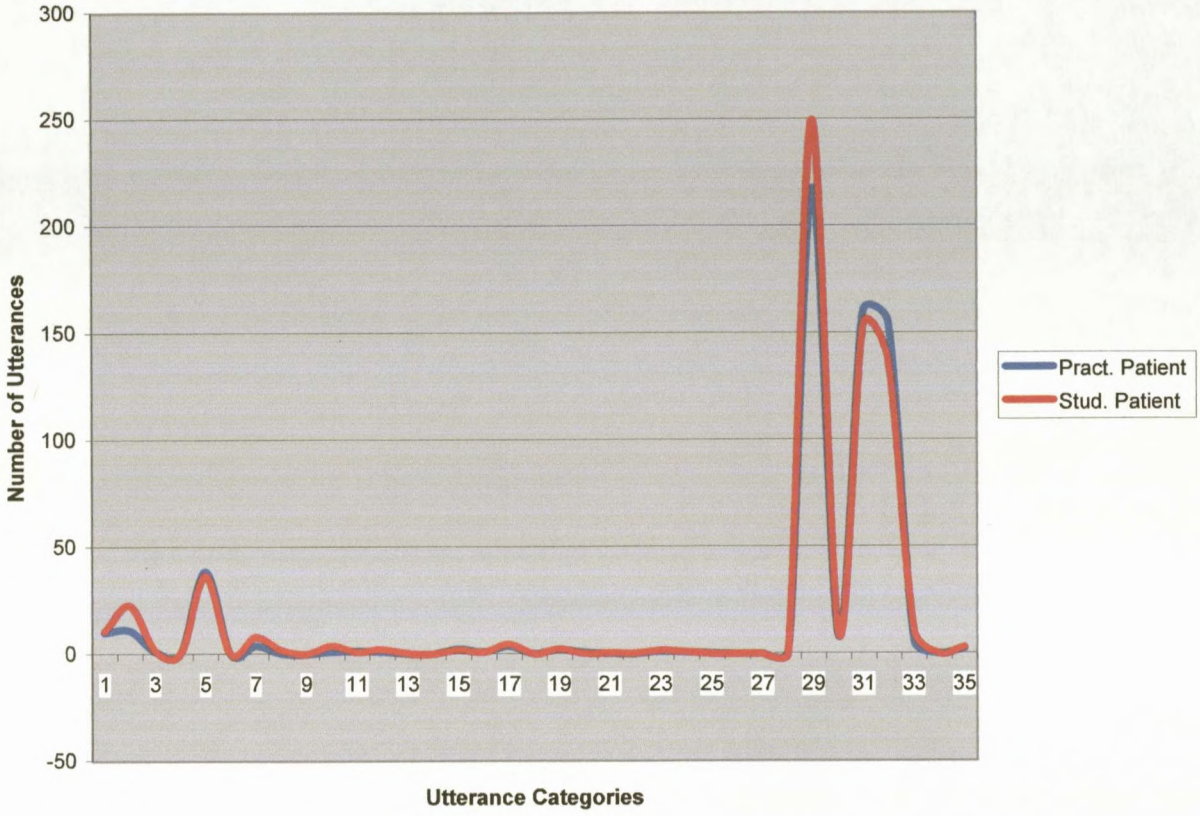


In the above figure the similarity between the communication patterns (represented by the curves) of qualified as opposed to student homoeopaths can be seen.

Note the Practitioner graph spikes at points 5, 6, 32 and 37. These correspond to Agree/understand, Back channel, Medical Information giving and Other

Information Giving. It is at these points that the practitioners use more utterances than the students.

Fig 4.10: Relative frequency distribution showing comparison of Utterances by patients of Students and patients of practitioners.



Again the similarity between the two curves is noted. The patients appear to rely mainly on the Information Giving channels as noted in the earlier graphs. This does not appear to change for patients of practitioners as opposed to patients of students.

4.7.2 Mann-Whitney U test

The Mann-Whitney U test was conducted using the both the individual Roter categories and the Super-categories. The reason for this was that aggregating categories into super-categories might mask some significant differences in the individual component categories demonstrate differences where individual categories do not. A two tailed significance was calculated as differences could be expected in either direction. The level of significance was p=0.05.

4.7.2.1 Hypothesis testing

Null hypothesis 3: There is no significant difference in median position between each utterance category in the practitioner group (both homoeopath and patient utterance categories) and each utterance in the student group (both homoeopath and patient utterance categories). i.e. both samples are drawn from the same population.

Alternative hypothesis 3: There is a significant difference in median position between each utterance category in the practitioner group (both homoeopath and patient utterance categories) and each utterance in the student group (both homoeopath and patient utterance categories). i.e. the samples are not drawn from the same population.

Significant differences were noted i.e. H_0 was rejected for certain categories. Due to the length of the list of categories (both patient and homoeopath utterances were included in the analysis) only categories where significant difference was seen, were noted.

Table 4.20: Individual Roter Categories exhibiting significant differences between the practitioner and student group.

Category Name	Statistical Significance at 5% level (p<= 0.05)
Gives Medical Information	Z=-2.165 P=.030
Patient Category: Shows concern	z=-1.974 p=0.49
Patient Category: Closed-ended questions: Other	Z=-2.381 p=.028

Table 4.21: Super-categories exhibiting significant differences between practitioner and student group.

Category Name	Statistical Significance at 5% level (p<= 0.05)
Homoeopath category: Negative talk	z=-3.294 p=.001
Homoeopath category: Emotional	z=-2.437 p=.014
Homoeopath category: Open-ended questions: Biomedical	z=-3.911 p=.000
Homoeopath category: Open-ended questions: Psychosocial	z=-2.625 p=.008
Homoeopath category: Closed-ended Questions: Biomedical	z=-2.246 p=.024
Homoeopath category: Psychosocial Information giving	z=-3.146 p=.002
Homoeopath category: Counsels or Directs Behaviour: Biomedical	z=-2.052 p=.040
Homoeopath category: Counsels or Directs Behaviour: Psychosocial	z=-2.493 p=0.13
Patient Category: Emotional	z=-2.348 p=.018
Patient Category: Other	z=-1.993 p=.046

4.8 Analysis of Post-coding Questionnaire: Student Group

At the conclusion of the coding of each tape a short summary of the interaction was completed (Appendix 5). This included the completion of an ordinal Global Affect Rating. Both Homoeopath and patient were assigned values between 1 (low) and 6 (high) for impressions such as overall anger or irritation, anxiety or nervousness, dominance or assertiveness etc. These values were then analysed to yield the following descriptions of the interviews between student homoeopaths and their patients.

4.8.1 Global Affect Rating

Table 4.22: Global Affect Ratings for Student Homoeopaths

	Mean	Standard Deviation
Anger/Irritation	1.05	0.22
Anxiety/Nervousness	1.3	0.73
Dominance/Assertiveness	2.65	0.93
Interest/Engagement	3.55	0.69
Friendliness/Warmth	4	0.79
Responsiveness	3.8	0.70
Sympathy/Empathy	3.6	0.88
Energy	3.15	0.67
Hope	3.75	0.72
Enabling/Involving	3.75	0.72

Table 4.23: Global Affect Ratings for Patients of Student Homoeopaths

	Mean	Standard Deviation
Anger/Irritation	1.00	0
Anxiety/Nervousness	1.74	0.99
Dominance/Assertiveness	2.58	0.77
Interest/Engagement	3.53	0.84
Friendliness/Warmth	3.74	0.93
Responsiveness	3.47	1.07
Depression	2.11	0.94
Emotional Distress	2.21	0.98
Energy	2.95	0.85
Hope	3.42	0.77
Enabling/Involving	3.42	0.77

4.8.2 Post - Coding Questions

Included in the post coding note were a few questions concerning specific measures of medical competency (Roter, 2000: 3477), as well as descriptors of the quality of the tapes, presence of third party, occurrence of interruption, and overall impression of dominant consultation style. These results were as follows:

4.8.2.1 Question 1

In terms of enquiry into other medication taken, the student group relied mainly on direct and intensive questioning to elicit information about other medication the patients may have been taking.

Table 4.24. Questioning approach used to elicit information regarding other medication.

Type of Questioning: Other Medication	**Number of Students**
Indirect questions	5
Direct Questions	14
Information Intensive	8
Not asked	2

A total of 5 students used indirect questioning, 14 used direct questions, and 8 used information intensive questioning, while 2 did not ask about the patients other medication. (Note that these were not mutually exclusive, so some students used direct and intensive questioning. Thus the total use exceeds the total number of students.)

4.8.2.2 Question 2

This concerned the number of incidences of recommendations for changes in various aspects of lifestyle (weight loss or diet, smoking, alcohol usage, stress levels, or exercise and activity levels).

Table 4.25. Incidences of recommendations for lifestyle changes

Lifestyle change recommended	Number of incidences
Change Weight or diet	2
Stop or Reduce Smoking	3
Stop or Reduce Alchohol usage	0
Decrease stress levels	0
Increase activity or exercise	1

4.8.2.3 Question 3

This concerned whether the Homoeopath summarised the recommendations at the end of the visit.

Table 4.26. Incidence of summary of Recommendations.

Summary provided	Incidence
Yes	3
No	9
N/a	8

(Note. N/a usually referred to a lack of reference due to premature conclusion of the tape or the students continuing conversation after leaving the consultation room.)

4.8.2.4 Question 4

This concerned tape quality and audibility.

Table 4.27. Summary of tape quality in the student group.

Tape Quality	Incidence
Good	18
Fair	1
Poor (Contains inaudible sections)	1

4.8.2.5 Question 5

This concerned descriptions of beginning and end of tape abruptness. Abrupt beginning could have been due to Homoeopaths forgetting to start the tape recorder, while abrupt ending could have been due to premature tape termination, tape failure, termination of tape during physical examination or running out of tape during the course of a long consultation.
This question also covered interruptions during the consultation (clinic staff, third parties, patients' phones, or practitioners' phones), as well as the presence of a third party during the consultation.

Table 4.28. Summary of Beginning and End anomalies, Interruptions and Third party presence.

Description	Incidence
Abrupt beginning	1
Abrupt Ending	14
Third party presence	7
Interruption during consultation	3

4.8.2.6 Question 6

This concerned the overall impression of the dominant consultation style. These included Strictly biomedical, Biomedical/Limited Psychosocial. Biomedical/Psychosocial mix and Mainly Psychosocial.

Table 4.29 Summary of Dominant consultation styles

Dominant Consultation Style	Incidence
Strictly Biomedical	2
Biomed/ Limited Psychosocial	3
Biomedical/ Psychosocial mix	11
Mostly Psychosocial	4

4.9 Analysis of Post-coding Questionnaire: Practitioner Group

4.9.1 Global Affect Rating

Table 4.30: Affect Ratings for Qualified Homoeopaths

	Mean	Standard Deviation
Anger/Irritation	1.00	0.00
Anxiety/Nervousness	1.00	0.00
Dominance/Assertiveness	2.35	0.75
Interest/Engagement	4.00	0.65
Friendliness/Warmth	4.60	0.68
Responsiveness	4.40	0.68
Sympathy/Empathy	4.50	1.15
Energy	3.85	0.75
Hope	4.40	0.68
Enabling/Involving	4.35	0.59

Table 4.31: Central Tendency of the Affect Ratings for Patients of Student Homoeopaths

	Mean	Standard Deviation
Anger/Irritation	1.00	0.00
Anxiety/Nervousness	1.50	0.69
Dominance/Assertiveness	2.30	0.98
Interest/Engagement	3.55	0.83
Friendliness/Warmth	3.90	0.79
Responsiveness	3.70	0.98
Depression	2.15	1.35
Emotional Distress	2.10	1.37
Energy	3.05	0.83
Hope	3.50	0.89
Enabling/Involving	3.55	0.83

4.9.2.1 Question 1

In terms of enquiry into other medication taken, the practitioner group relied mainly on direct and indirect questioning to elicit information about other medication the patients may have been taking.

Table 4.32 Types of Questioning used to elicit information regarding other medication.

Type of Questioning: Other Medication	Number of Practitioners
Indirect questions	6
Direct Questions	11
Information Intensive	4
Not asked	5

(Note that these were not mutually exclusive, so some practitioners used direct and intensive questioning. Thus the total use exceeds the total number of students.)

4.9.2.2 Question 2

This concerned the number of incidences of recommendations for changes in various aspects of lifestyle (weight loss or diet, smoking, alchohol usage, stress levels, or exercise and activity levels).

Table 4.33 Incidences of recommendations for lifestyle changes, by category.

Lifestyle change recommended	Number of incidences
Change Weight or diet	6
Stop or Reduce Smoking	11
Stop or Reduce Alchohol usage	4
Decrease stress levels	5
Increase activity or exercise	6

4.9.2.3 Question 3

This concerned whether the Homoeopath summarised the recommendations at the end of the visit. Most practitioners summarised their recommendations.

Table 4.34. Incidence of summary of Recommendations.

Summary provided	Incidence
Yes	12
No	5
N/a	3

4.9.2.3 Question 4

This concerned tape quality and audibility.

Table 4.35. Summary of tape quality in the student group.

Tape Quality	Incidence
Good	15
Fair	2
Poor (Contains inaudible sections)	3

4.9.2.5 Question 5

This concerned descriptions of beginning and end of tape abruptness. This also covered interruptions during the consultation (clinic staff, third parties, patients' phones, or practitioners phones), as well as the presence of a third party during the consultation.

Table 4.36. Summary of Beginning and End anomalies, Interruptions and Third party presence.

Description	Incidence
Abrupt beginning	2
Abrupt Ending	10
Third party presence	2
Interruption during consultation	7

4.9.2.6 Question 6

This concerned the overall impression of the dominant consultation style. These included Strictly Biomedical, Biomedical/Limited Psychosocial. Biomedical/Psychosocial mix and Mainly Psychosocial.

Table 4.37. Summary of Dominant consultation styles

Dominant Consultation Style	**Incidence**
Strictly Biomedical	0
Biomedical/ Limited Psychosocial	6
Biomedical/ Psychosocial mix	8
Mostly Psychosocial	6

Chapter 5: Discussion

5.1 Introduction

The data obtained from audiotape analysis of homoeopathic consultations using the RIAS was analysed using the statistical procedures described in Chapter 4. The first part of the analysis was mainly descriptive, making use of standard ratios and tables to describe the properties of the consultations. The second part of the analysis was comparative, comparing results within each group as well as comparing communication patterns across groups. Further, the General Affect Ratings and summary notes completed at the end of coding for each tape were summarised in Chapter 4. This chapter is a discussion of the results obtained in Chapter 4.

5.2 Selection Bias

Both the student group and the practitioner group were recruited on a voluntary basis. This could have introduced a selection bias into the study e.g. if students who were less skilful and less confident did not volunteer, the results would have reflected an incorrect overview of the cohorts ability. A possible mitigating factor could be a uniform overestimation of both groups abilities i.e. if practitioners who were less confident did not volunteer either. Another point to consider is the small size of the sample group as well as the population group- i.e. 10 students selected out of the total population of 16 increases the accuracy of the representation even with a slight selection bias.

5.3 Communication Categories and Super-Categories

The aggregation of the absolute categories of the RIAS into larger descriptive super-categories was derived from studies in the medical context. (Roter et al., 1997: 350), (Ford et al., 1996: 1511), (Roter et al., 2000: 3477). This aggregation served the purpose of making the categories easier to understand and work with in descriptive terms. The manipulation of these

super categories for statistical purposes (ratio derivation and charts) was also facilitated. No information was lost in this aggregation as the super categories were still descriptive and fully manipulable. Further the original absolute categories were used both descriptively and statistically in the derivation of supplementary relative frequency diagrams (Figs 4.4 and 4.8) and mean utterance occurrences (Tables 4.5 and 4.14).

5.4 Student Group

5.4.1 Homoeopath utterances

The most dominant super-categories of utterances in the Student Homoeopath group were the Positive Talk, Facilitation and Closed-ended Biomedical Question super-categories (accounting for 53.5% of utterances – Table 4.3). These three super-categories may reflect the focus of student Homoeopaths- building a rapport with patients (Positive talk), directing the communication (Facilitation) and ensuring safety of the patient by fully exploring the medical history (Closed-ended Biomedical questions). This tendency may reflect the training and primary level of experience of the student practitioners.

The ratio of Open-ended questions to Closed-ended questions was 0.63 for the student group. This ratio demonstrates the dual needs of exploring the patients' experiences of disease (Open-ended questions) with clarifying symptoms and possibly distilling usable symptoms for use in repertorisation.

Another noteworthy consideration is the relatively low occurrence of patient management and education super-categories. The Information giving super-categories (Biomedical Information, Biomedical Counselling, Psychosocial Counselling and Other Information) accounted for 10.3% of utterances by student Homoeopaths. This may reflect a lack of confidence, experience and clinical exposure in prescribing lifestyle, psychosocial and biomedical changes beyond medication. It may also reflect a non-awareness of the need for a

homoeopath to provide more than a remedy, but rather a planned and managed intervention of which the remedy is only part.

Ford et al. (1996: 1511) noted that 50.5% of utterances in the oncological consultations studied, fell into the information giving super-categories. Roter et al. (1997: 350) reported a standard deviation of between 20% and 43% (depending on the dominant communication pattern) of utterances in the information super-categories. All of these results far exceed the use of these super-categories by the homoeopathic student interns. Part of this discrepancy may lie with the different nature of the homoeopathic consultation which classically and ideally is for the homoeopath to fulfil the role of observer – unprejudiced, and intruding as little as possible (Hahnemann, 1836: 314; De Schepper, 2000: 572). However part of the discrepancy could be attributed to under utilisation of the information super-categories.

The super-categories of utterances occurring least often were the Social talk, Negative talk, Emotional talk and Psychosocial Counselling and Information Giving super-categories. Together these accounted for less than 6% of utterances. Ford et al. (1996: 1511) noted similar 'under-utilised' super-categories in the context of the oncological consultation. These are Negative talk, Emotional talk, Open-ended Biomedical questions and Open-ended Psychosocial questions.

5.4.2 Patient Utterances

By far the most widely utilised super-categories were the Gives Biomedical information (38.8%) and Gives Psychosocial Information (43.6%) super-categories, together accounting for 82.4% of utterances. The positive talk channel accounted for a further 9.2%. The patients' fulfilled their roles in the relationship by supplying information almost exclusively. The occurrence of significant levels of Positive talk may be in response to the extensive use of this category by the student group. This is in the form of Laughter, Compliments, Agreement and Approval.

In keeping with homoeopathic philosophy dictating a focus on a holistic understanding of the patient, (Kaplan, 2001: 206) and an interesting deviation from results from the medical context (Roter et al., 1997: 350) is the equally large use of the Biomedical and Psychosocial super-categories. In the oncological consultation, only 11.5 % of patient utterances fall into the psychosocial category (Ford et al., 1996: 1511) , while in general medical consultations a standard deviation of between 5% and 55% of occurrences fall into the Psychosocial category (depending on the dominant communication pattern). (Roter et al.,1997: 350).

The 43.6% use of this category places the homeopathic consultation within a Bio-psychosocial/Psychosocial model. (Roter et al.,1997: 350). This pattern is recognised by the even division of Homoeopath talk between Biomedical and Psychosocial talk, the dominance of the Psychosocial component of patient talk, a high level of Homoeopath Positive talk and relatively low levels of Orientation statements.

The frequency distributions of utterances of provide a visual depiction of the difference in utterances across different super-categories. (Figs 4.3 and 4.6). Further, the relative frequency distribution (Fig 4.9) comparing the utterances of Homoeopaths from both the student and practitioner groups highlights what may be a source of some of the observed differences: the student utterance occurrence is uniformly higher than the practitioner occurrence. The distributions appear very similar in the peaks and troughs, however the students use more of each category of utterance. This provides convincing evidence for the view that this particular distribution is particular to the nature of the homoeopathic consultation across the two groups rather than characteristic of different styles for practitioner and student.

The fact that students use uniformly more of each type of utterance could be a reflection of a lower level of skill and experience (need more of each type of utterance to elicit the information they need) or the limited time available to the practitioner group who are engaged in private practice where there is more pressure on time resources. The relative frequency distribution

comparing the patient utterances across the two groups (Fig 4.10) could support either the interpretation that students have less skill in eliciting quality information or the interpretation that the students have more time available than practitioners. The patients of students generally use uniformly more of each type of utterance than the patients of practitioners. The two interpretations are not mutually exclusive i.e. both student lack of skill and experience and practitioner time constraints may both effect the observed differences.

5.4.3 Category Correlations:

Spearman's Rank ordered Correlation Co-efficient was used to test the null hypothesis (H_0 -1): There is no correlation between the number of utterances in each of the student Homoeopaths' functional groupings with the utterances in the patients' functional groupings.

Each Homoeopath utterance super-category was tested for correlation with each patient utterance super-category. $\alpha = 0.05$ was used as confidence interval (5% level of significance). The following correlations were found to be statistically significant:

Homoeopath Social talk was significantly positively correlated to patient Social talk and patient use of the Gives Other Information super-category. The use of Social talk as an ice breaker is recognised in communication literature (Bandler and Grinder, 1975:275) and is usually responded to with replies falling in the Social talk super-category. The correlation with the patient Gives other information category reflects responses to Social talk that were not part of any other recognisable interaction category.

Homoeopath Positive talk was significantly positively correlated to patient Social talk, Positive talk, Closed-ended Psychosocial Questions, Gives Psychosocial Information and Gives Other Information super-categories. This may reflect the response by the patient to positive talk i.e. the patient feels more comfortable and relaxed (Social talk, Positive talk), asks more clarifying

questions (Closed-ended Psychosocial questions) and gives more personal and other information (Gives Psychosocial Information and Gives Other Information).

Homoeopath Negative talk was significantly positively correlated with Social talk, Emotional talk, Partnership building, and Closed Biomedical Question asking super-categories. Negative talk by the Homoeopath is not necessarily reflecting negatively on the patient. Negative talk about situations or other influences on the patient may be seen as supportive and encouraging and may stimulate the patient to respond with social, emotional and partnership talk and to feel comfortable to ask more clarifying medical questions.

Homoeopath Emotional talk was significantly positively correlated to patient Positive talk, Emotional talk, Partnership building, and Closed biomedical questions. Emotional talk stimulates the patient to respond with Social, Emotional and Partnership talk and to feel comfortable to ask more clarifying medical questions.

Homoeopath Facilitative talk is significantly positively correlated to patient Positive talk, Negative talk, Emotional talk, Gives Psychosocial information and Gives Other information super-categories. Facilitative talk may allow the patient to feel comfortable and safe enough to give voice to emotionally sensitive issues, positive and negative sentiments, and feel secure in giving psychosocial and other information.

Homoeopath Partnership talk is positively correlated with patient Positive talk and Emotional talk. This supports the interpretation that an increased sense of being valued and supported (Partnership building) may lead to increased open-ness and willingness to respond more personally (Positive talk, Emotional talk).

Note that Orientation statements are not correlated with any patient super-categories. This reflects their nature: directing behaviour and action during the

consultation. Orient statements do not require any verbal response from the patient.

Further, neither Open-ended nor closed ended biomedical questions, are significantly correlated with any patient super-categories. This suggests that Biomedical Question asking (Open-ended or Closed-ended) alone is not sufficient to correlate with information giving talk. This is supported by Beckman and Frankel (1984: 692) who concluded that building patient trust and comfort was an important part of a physician's ability to gather data. Furthermore Suchman and Mathews (1998: 125) note that the patients therapeutic experience of often depends on a synergy of factors and communication dynamics.

Homoeopath Open-ended Psychosocial question asking is significantly positively correlated with patient Psychosocial Information Giving. This implies that the patients will reveal more information in response to more questions.

Homoeopath Closed-ended Psychosocial question asking is negatively correlated with patient Closed-ended Psychosocial question asking. Patients may have less need to clarify closed-ended psychosocial questions asked by the homoeopath, by asking questions of their own as these 'closed-ended' questions are narrower in focus and hence clearer and less subject to misunderstanding.

Homoeopath Biomedical Information Giving is correlated with patient Negative talk and Closed-ended Biomedical question asking. Homoeopaths may respond to patients' negativity or questions by giving medical information.

Homoeopath Psychosocial information Giving talk is correlated with patient Social talk, Positive talk, Emotional talk, Gives Psychosocial Information and Gives Other Information super-categories. By providing the patient with counselling and psychosocial information, the homoeopath may facilitate the patients' levels of comfort (Social talk, Positive talk) and allow them to reveal

emotional issues (Emotional talk) and thus lead to information sharing by the patient (Gives Psychosocial Information).

Psychosocial Counselling talk is positively correlated with Patient positive talk, Emotional talk, Partnership talk, Open-ended Psychosocial question asking, Gives Psychosocial information and Gives Other information super-categories. Homoeopaths may respond to psychosocial questions by giving psychosocial information, which in turn stimulates, positive and emotional responses, and further information revelation (both psychosocial and other).

No Homoeopath category is significantly correlated with patient Biomedical Information Giving. This may be due to the wide variation in the way that patients respond to biomedical questioning i.e. some patients respond at length and others very briefly, destroying the statistical correlation. Another reason for this may be that patients are at a Homoeopath for treatment of a condition, of which they will reveal the nature and extent, whether specifically asked or not. In narrative terms, the patient has a story to tell and they are visiting the homoeopath with a view to telling the story. (Bandler and Grinder, 1975: 225). The extent of the revelation of the key structures of the patients' stories depends on the skill of the questioner (homoeopath). (Bandler and Grinder, 1975: 225)

As concerns psychosocial information however the subtle and sensitive nature of this area may make it more susceptible to possible synergistic effects of a Homoeopaths communication. This is evidenced by the number of Homoeopath super-categories (6- refer Table 4.17) which are correlated with the patient Gives Psychosocial Information super-category.

5.4.4 Ratios

The ratios calculated provide a description of the homoeopathic consultation as practiced by student homoeopaths. In keeping with understanding of the homeopathic interaction (Kaplan, 2001:206) the Verbal Dominance ratio was low: for every 1 Homoeopath utterance there were 1.38 patient utterances.

With the Revised Verbal Dominance ratio taken into account this increased to 1:1.65. However despite this lack of verbal dominance the Homoeopaths evidenced strong control of the direction and flow of the consultation.

The above ratios seem to reflect the students need to allow the patient to impart information while at the same time maintain control over the direction and process of the consultation. The low level of control of the consultation by the patient, could be seen as impeding a clear grasp of the patient as observed without prejudice or imposed direction. (Taylor, 2003: web site). Control of the flow of the consultation by the students could be due to insecurity, inexperience and trying to fulfil a list of requirements learnt as a theoretical check list of information needed to be elicited.

According to Hahnemann the role of the homoeopath is an 'unprejudiced observer', who observes and notes everything about the patient. However Hahnemann also includes rigorous questioning and cross examining in his directions to taking a case. Different phases of the consultation require different styles of interaction. (Kaplan,2001: 206; De Schepper, 2001: 572). As such the composite ratios and patterns would fail to reflect such diversity and extremes and instead would reflect an average which may not accurately represent any part of the consultation.

The Patient Centeredness ratio demonstrated a high degree of patient centeredness. This reflects the Homeopaths' need to understand the patient in the context of his/her life and see the illness as part of this continuum of experience. Consideration was given to the biophysical manifestations of the illness as well as the mental and emotional components and the patient's family and social context. (De Schepper, 2001: 572). The Psychosocial Exchange versus Biomedical Exchange ratio demonstrates the even focus on both realms of the patients experience of disease. The ratio of 1.02 shows an almost 50-50 split between the two aspects.

In terms of communication patterns described in the medical literature the student group fall into the Psychosocial pattern of interaction. This pattern

was described in the Literature Review and reflects the increased focus on the mental and emotional components of the patient's condition, the low use of Orientation statements, the high use of Positive talk (Approval, Agreement, Understanding) and the limited reliance on Closed-ended questions. These descriptors are in agreement with the broad guidelines for the homoeopathic approach to the consultation. (De Schepper, 2001: 572).

5.4.5 Post Coding Questionnaire

5.4.5.1 Global Affect Rating

The Global Affect Rating was an overall subjective measure of the emotional or affective dimension of the consultation. A score was assigned to a dimension for both practitioner and patient. A score of 1 was the lowest score meaning None at All, while a score of 6 indicated the highest level i.e. High.

In the Student group (Table 4.22), the Anger/Irritation levels were uniformly low. The mean was 1.05 and the standard deviation of 0.22 indicated little deviation from this level. Patients also exhibited very low levels of anger and irritation with the mean being 1 and the standard deviation 0.

Homoeopath Anxiety and nervousness were also low with mean of 1.3, however a standard deviation of 0.73 indicated slightly more variation, and a greater incidence of increased anxiety and nervousness. This may be due to the fact that the student group are constantly being exposed to clinical situations they may not be entirely familiar with. Further, a few (7) of the consultations used for coding purposes were taped with third party observation occurring, during Case Evaluations. Case evaluations are formal assessments by clinician observers of the student practitioners handling of patients including case taking and analysis, remedy selection and follow-up procedures.

Patients seemed to feel mostly at ease with the consultation process with mean of 1.74 and standard deviation 0.99 for anxiety and nervousness. Again

slightly a higher standard deviation indicated higher variation i.e. a greater incidence of increased patient Anxiety scores.

Homoeopath Dominance and assertiveness levels were slightly higher with a mean of 2.65 and standard deviation of 0.93. This is a relatively low level of control and dominance. Considering the results of the ratio analysis however it can be seen that the students exercised a high degree of control over the flow and direction of the consultation without giving an impression of dominance and assertiveness. Patient dominance levels had mean 2.58 and standard deviation 0.77. Thus the impressions of dominance given by patient and practitioner were both low. This may reflect the mutual desire not to appear aggressive and domineering. Actual control of the consultation flow and direction however lay with the homoeopath. This is in accord with the directions given for taking a case. (Hahnemann, 1836: 314).

Homoeopath Interest/engagement, Friendliness/warmth and Responsiveness were all higher with means of 3.55, 4.0 and 3.8 and standard deviations of 0.69, 0.79 and 0.70 respectively. The homoeopathic consultation is consistent with the patient centred model in which the practitioner shows compassion, friendliness and warmth in the relationship. (Stewart et al., 1986: 167). These high levels with relatively low standard deviations reflect this concern. Patients responded similarly with medium to high levels of Interest/engagement, Friendliness/warmth and Responsiveness (means 3.53, 3.74 and 3.47 and standard deviations 0.84, 0.93 and 1.07 respectively).

Sympathy and Empathy levels and Energy were slightly lower (with means of 3.6 and 3.15 and standard deviation of 0.88 and 0.67 respectively).In light of patients demonstrating low levels of Depression and Emotional distress (means 2.11 and 2.21 and standard deviations 0.94 and 0.98 3 respectively) the student group may have been unfamiliar with reflective techniques and other ways of communicating understanding and empathy. As such they did not trigger powerful emotional issues with patients and the Depression and Emotional Distress levels stayed low. Most responded to emotionally sensitive issues with silence (ostensibly to encourage patients comfort to explore

further) or Back Channel or Agreement statements (ostensibly to show agreement or understanding). Student homoeopaths relied largely on voice tone and voice volume to indicate empathy and concern for the patient's emotional issues. This may be due to the inexperience of the student group in dealing with the affective domain of the illness experience and the lack of skills in dealing with this domain. Whether the patients failed to disclose and explore painful and distressing emotional issues as a result of this inexperience or the students failed to elicit such exploration is a question for further research.

In terms the dimension of Hope, student scores had mean 3.75 and standard deviation 0.72. The patients had mean 3.42 and standard deviation 0.77. The students demonstrated more feeling of Hope than the patients, possibly trying to encourage patients about their medical conditions or showing a level of confidence in the treatment modality being offered.

Energy levels were similar with students showing medium levels of Energy (mean 3.15 and standard deviation 0.67) while the patients had a smaller mean 2.95 and a higher standard deviation (0.85). This implied the students demonstrated more energy more consistently in the consultation than the patients.

Finally in terms of Enabling and Involving, both students and patients involved the other in the communication process. Students had mean 3.75 and standard deviation 0.72 while patients had mean 3.42 and standard deviation 0.77. Again the higher standard deviation and lower mean for the patient scores reflect less consistency for this component. Taken with the Energy scores this supports the conclusion drawn from the Verbal Dominance ratios that the student homoeopaths were generally in control of the consultation. They demonstrated higher scores for Energy, Enabling/Involving and Hope more consistently than the patients. This implied a high level of responsibility felt by the student group for the consultation dynamic and the patients' experiences of homoeopathy and the homoeopathic consultation.

5.4.5.2 End of coding Summary notes

5.4.5.2.1 Question 1: Did the homoeopath ask about allopathic medication the patient is taking?

This question (4.8.2.1 and Table 4.24) covered the way the students elicited information about other medication the patients were taking. Most used direct questioning in an information intensive manner. (Only 2 did not ask about other medication.) This indicated a generally high level of concern for management of the patient. It also demonstrates a desire for student's to ascertain as much information as possible about the patients medical history.

5.4.5.2.2 Question 2: Which lifestyle recommendations did the homoeopath make?

Few recommendations were made for lifestyle changes. (4.8.2.2 and Table 4.25) Only 2 recommendations for changing weight or diet were made, 3 for stopping or reducing smoking and 1 for increasing activity or exercise. These low numbers of recommendations (6 out of 20 cases or 30%) may be due to lack of experience and a discomfort about taking responsibility for the institution of lifestyle changes. It may also demonstrate a naiveté and lack of clinical exposure in student's sole reliance on the prescription of a remedy, rather than on overall management.

5.4.5.2.3 Question 3: Did the homoeopath summarize his/her recommendations near the end of the visit?

Nearly half of the cases were concluded without summary of recommendations (9 out of 20). (4.8.2.3 and Table 4.26). A total of 3 students conducted summaries and the other 8 had end of tape anomalies that prevented the researcher drawing a conclusion. These may have been due to tapes being concluded early (i.e. before end of consultation or during physical exam) or students continuing with their discussion outside of their consulting rooms. (Due to the layout of the DIT Homoeopathic Day Clinic students escort

their patients down a long corridor back to the waiting room. A large number of students continue discussion (including summary of recommendations) on this walk back to the waiting room thus precluding taping of the final closing of the consultation.

5.4.5.2.4 Question 4: Describe overall tape quality?

Tape quality was consistently good in the student group. (4.8.2.4 and Table 4.27).

5.4.5.2.5 Question 5: Miscellaneous Anomalies in Taping

A large number of tapes had end of tape anomalies. (4.8.2.5 and Table 4.28). Possible reasons for these were mentioned in the discussion for Question 3 above. Further possibilities are long consultations with tape ending before consultation ended, battery failure, termination of tape at patients request and termination of taping during physical exam.

No workable solution can be thought of for prevention of all sources of end of tape anomalies. Most would have affected only the closing and conclusion greeting.

Third party presence was noted in 7 of the tapes. This was due to the presence of clinician observers in 5 of the cases as well as the presence of patients' companions or children in 2 others. The RIAS is considered robust enough to be used even in the case of third party observers. (see section 5.5.6 for motivation of inclusion of case evaluation tapes in the study).

Three incidences of interruption were noted, 2 due to patient cell phones and 1 due to clinician being asked to examine a patient when the student was unsure of a finding.

5.4.5.2.6 Question 6: Which best characterizes the homoeopath's style?

The dominant style of consultation used was Mixed Biomedical / Psychosocial. (4.8.2.6 and Table 4.29). This is consistent with the literature review in terms of the homoeopathic consultation falling into the patient centred model. 4 cases were seen to be mostly psychosocial, 2 strictly biomedical and 3 biomedical with limited psychosocial. This demonstrates the adaptation of the case taking process to fit the particular patient, and the comfort of the students in using different methods of diagnosing a remedy e.g. biomedical cases may be prescribed for on a more clinical level.

5.5 Practitioner Group

5.4.1 Homoeopath Utterances

The most commonly used super-categories in the practitioner group were the Positive Talk, Facilitation, Closed-ended Biomedical Questions and Gives Biomedical information Super-categories. These together accounted for 68% of the Homoeopath utterances. The Positive talk and Facilitation super-categories were similar in extent of use to the student group, however the use of Closed-ended Biomedical questions was overshadowed by the use of the Gives Biomedical information category. The Positive talk super-category (comprising Laughter, Agreements, Approval and Compliment categories) and Facilitation super-category (Back channel and Transition categories) reflect the twin goals of building rapport and trust and stimulating and encouraging reflection and information revelation. (Suchman and Mathews, 1988: 125).

The practitioner group used notably more Gives Biomedical information utterances (12.8% as opposed to the student group – 6.6%), possibly reflecting the increased confidence level, knowledge and education and management focus of experienced practitioners. The relatively less frequent use of the Closed-ended Biomedical questions category (10% as opposed to the student group - 15.8%) may demonstrate less focus on a medical

diagnosis. The practitioner group used a broader range of questions than the student group with significant use of the other question super-categories and more notably the other information giving super-categories (Gives Psychosocial information -1.7%, Biomedical Counselling -2.2% and Psychosocial Counselling -3.1%).

The most infrequently used super-categories were the Negative Talk and Social Talk super-categories, as well as the Gives Psychosocial information super-category. These together accounted for less than 4% of utterances.

The above figures imply a greater level of confidence and skill demonstrated by the practitioner group. Qualified homoeopaths appears more comfortable to give recommendations, explore subtler aspects of the patients experience (i.e. psychosocial aspects), give information, counsel patients and limit detailed biomedical questioning.

5.5.2 Patient Utterances

The most frequently used super-categories were the Gives Biomedical information (34.5%) and Gives Psychosocial information (51.0%) super-categories. These together accounted for 85.5% of utterances. Positive talk, Social talk and Emotional talk super-categories made up most of the balance. These frequencies emphasize the decreased reliance of the practitioner group on biomedical type information. The consultation is firmly placed in the Psychosocial model of the consultation. The extremely low occurrence of utterances in all the other super-categories highlights the patients' almost singular use of information giving super-categories.

In the comparative relative frequency distribution (Fig 4.10) it is visually clear that the patients of both practitioners and patients used the same categories of utterances.

5.5.3 Category Correlations

Practitioner Social talk was positively correlated to Patient Social talk. This follows from the nature of the super-category i.e. greetings, replies to greetings, friendly gestures and goodbyes.

Practitioner Positive talk was positively correlated to patient Closed-ended Psychosocial questions. The patients may have responded to positive talk (agreements, approval and understanding) by feeling more comfortable to ask closed-ended psychosocial questions. These questions mainly served as clarification for patients.

Practitioner Emotional talk was positively correlated to patient Positive talk. The patients may have felt more comfortable (evidenced by increased Positive talk- Laughter, Agreements, Understanding and Compliments) when practitioners show emotional responses (Concern, Empathy, Re-assurance, Optimism and Legitimisation categories).

Practitioner Partnership talk was positively correlated to patient Positive talk, Emotional talk and Open-ended Biomedical questions . As the practitioner built the sense of partnership the patient responded with Positive talk, increased level of emotions (Empathy, Concern and Optimism) and may thus have felt increased freedom to ask Open-ended Biomedical questions. These questions may have served as ways for the patient to explore their illness experience through investigating the knowledge and viewpoint of the homoeopathic practitioner. (Bandler and Grinder, 1975: 225)

Practitioner Orientation utterances were positively correlated to Patient Emotional talk and Gives Other information utterances. The use of these directive utterances by practitioners may encourage a feeling of being at ease on the part of patients (increased Emotional talk- Empathy, Concern, Optimism, Legitimisation categories) as well as imparting information (Gives Other information). Note that Orientation utterances in the student group were not correlated with any patient super-category. The difference in the

correlations may be a result of inappropriate directions by students as opposed to more appropriate directions by practitioners. Alternatively, the practitioners may have directed patients only to examine relevant physical systems whereas students were required to perform full general physical examinations as part of the consultation and used more of these kind of utterances (mean 18.65 for student group as opposed to mean 13.45 for practitioner group).

Of the question asking super-categories none were significantly correlated to any patient super-categories, with the exception of Practitioner Closed-ended Psychosocial questions. This was positively correlated to patient Gives Psychosocial information and Gives Other information super-categories. The patients may have responded to Psychosocial questions by answering them (Gives Psychosocial information) as well as supplying information which did not fall into any of the other super-categories (Gives Other information).

The non-correlation of any of the other question asking super-categories may be due to the synergistic nature of the homoeopathic consultation – i.e. no one super-category can be said to result in greater imparting of information by the patient. The fact that no correlations were seen between the patient Gives Biomedical information super-category and any other super-category supports this. Suchman and Mathews (1988: 125) noted the complexity of the doctor-patient relationship and the synergistic nature of therapeutic results experienced by the patient.

Practitioner Gives Biomedical Information was significantly correlated to Patient Closed-ended Psychosocial questions, and to Patient Gives Other information. The practitioners may have responded to questions in the Psychosocial area by giving more medical information in an attempt to provide re-assurance for the patient. Patients in turn supplied other information as practitioners gave more biomedical information.

The Practitioner Biomedical Counselling super-category was positively correlated with the patient Gives Other information super-category. This

implied that patients responded to being given counselling and practical information by sharing issues with the practitioner.

Practitioner Gives Other Information was positively correlated with patient Open-ended Biomedical question asking and patient Social talk. Practitioners may responded to biomedical questions by supplying other information (information that is not coded into any other category). Similarly the practitioner response to patient Social talk could have been Other information rather than social talk i.e. responses to greetings, friendly gestures etc. These correlations may point to experimenter error in the coding of Social talk and Gives Other information super-categories.

5.5.4 Ratios

The ratios calculated provide further description of the homoeopathic consultation as practiced by the sample of qualified homoeopaths. The Verbal Dominance ratio was low but higher than for the student group: for every 1 Homoeopath utterance their were 1.2 patient utterances. With the revised verbal dominance scale taken into account this decreased to 1:3.00. This large decrease is an indication that the practitioner group made extensive use of the Back Channel category. This comprises utterances used to keep the patient speaking. Qualified homoeopaths used this category to a much greater extent than the students- mean 116.90 as opposed to 78.69 for students. This implied that the practitioners relied more on active listening (use of conversational techniques i.e. Back Channel utterances) to elicit information than the students did. This may indicate a higher skill and confidence level in the practitioner group.

Practitioners appeared to exercise a degree of control over the process and flow of the consultation despite the low level of verbal dominance. This was evidenced by value of the ratio of homeopath direction as opposed to patient direction- $R_{Direction}$ - of .024 (Section 4.6.5). Practitioners had more control over the direction and flow of the consultation than their patients.

Although low, this ratio was higher than the same ratio for the student group. This reflects the greater degree of control over flow and direction exercised by the patients of qualified practitioners. This supports the conclusion that the practitioner group relied more on subtler skills and experience. Qualified homoeopaths had less verbal input than students while maintaining control over the consultation and allowing patients to direct the flow to a degree. Less control of the flow of the consultation by the practitioners than shown by the student group may reflect the increased experience, confidence and clinical exposure of the practitioners.

Both student and qualified homoeopaths recognised the need to allow the patient to impart information while at the same time maintain control over the direction and process of the consultation. Practitioners appeared to fulfil this need more subtly and skilfully.

The patient centeredness score demonstrated a high degree of patient centeredness. The score (0.96) was higher than the students' patient centeredness scores. This reflects the increased recognition by the practitioners of the homeopath's need to understand the patient in the context of his/her life. This implied that practitioners were more patient focussed.

The psychosocial exchange versus biomedical exchange ratio demonstrates the increased focus by the practitioners on the psychosocial realm of disease. The ratio of 1.14 (as compared to 1.02 for student group) supports the conclusion that the practitioner group are more patient-centred and pay more attention to patients' unique disease experiences and personal profiles.

In terms of communication patterns described in the medical literature the practitioner group fall into the Psychosocial pattern of interaction. This pattern was described in the Literature Review. Practitioners were more patient centred, used high levels of open-ended and psychosocial questions, and relied on personal contact and conversational skills to elicit information. They appeared to be more confident in relying on the subtler aspects of communication and were less directed in the types of information they used to

build their case. These factors point to a higher skill level and more awareness of the homoeopathic method as regards understanding the patient as a whole in the context of his/her life. (Close, 1996: 280).

5.5.5 Post Coding Questionnaire

5.5.5.1 Global Affect Rating

In the Practitioner group (Table 4.30), the Anger/Irritation level was uniformly low for both homoeopath and patient. The homoeopath mean was 1.00 and a standard deviation of 0.00 indicated no deviation from the mean. Patients also exhibited a very low level with mean 1.00 and standard deviation 0.00.

Homoeopath Anxiety/Nervousness was also low with mean 1.00, and a standard deviation of 0.00. Patients also seemed to feel mostly at ease with the consultation process with mean 1.50 and standard deviation 0.69 for anxiety and nervousness. Practitioners gave the impression of being slightly more relaxed and at ease than the students. This could reflect the increased levels of experience and clinical exposure.
Homoeopath Dominance and Assertiveness levels were slightly higher with a mean of 2.35 and standard deviation of 0.75. Again it can be seen that the practitioners exercised a high degree of control over the flow and direction of the consultation without giving an impression of dominance and assertiveness. Patient dominance levels had mean 2.30 and standard deviation 0.98. Again neither patient nor practitioner gave the impression of dominance or assertiveness. This is in accord with the patient-centred model in that the relationship is one of mutual respect with neither side dominating or asserting at the expense of the other. (Stewart et al., 1986: 164)

Homoeopath Interest/engagement, Friendliness/warmth and Responsiveness were all higher with means of 4.00, 4.60 and 4.40 and standard deviations of 0.65, 0.68 and 0.68 respectively. The homoeopathic consultation is consistent with the patient centred model in which interest, friendliness and responsiveness are part of the relationship. (Stewart et al., 1986:167).

Patients responded similarly with medium to high levels of Interest/engagement, Friendliness/warmth and Responsiveness (means 3.55, 3.90 and 3.70 and standard deviations 0.83, 0.79 and 0.98 respectively). Again the practitioners demonstrated higher scores more consistently than the patients. This implies the homoeopaths taking responsibility for the patients' experience of homoeopathy and the consultation process.

Sympathy and Empathy levels were higher (mean of 4.50 and standard deviation of 1.15) in the practitioner group than the student group (mean of 3.60 and standard deviation of 0.88). The practitioners gave the impression of being more sympathetic and empathetic than the students. The higher standard deviation indicates slightly less consistency in the practitioner group in the expression of Sympathy and Empathy.

Patients of practitioners demonstrated low levels of Depression and Emotional Distress (means 2.15 and 2.10 and standard deviations 1.35 and 1.37 respectively). The large standard deviations indicate more varied levels of these emotions. Patients of students had similar means with much smaller standard deviations. This implies that patients of practitioners demonstrate wider ranges of these emotions than patients of students. A reason could be the skill levels of practitioners in facilitating emotional exploration where appropriate, rather than uniformly little exploration. The high standard deviations of the practitioner Sympathy/Empathy scores support this conclusion.

Practitioner scores for Hope had mean 4.40 and standard deviation 0.68. The patients had mean 3.50 and standard deviation 0.89. Similarly to the student group, practitioners demonstrated more feeling of Hope than their patients. Overall scores were higher in the practitioner group, implying an attempt to support the patient by demonstrating Hope. This is supported by practitioner Energy scores. Practitioners gave the impression of higher energy scores more consistently (mean 3.85 and standard deviation 0.75) than the patients (mean 3.05 and standard deviation 0.83). The differential in the perceived

energy levels could also be due to the fact that the patient is generally not well when visiting a homoeopath, whereas the homoeopath is likely to be well.

Scores for Enabling/Involving demonstrated both practitioners (mean 4.35 and standard deviation 0.59) and patients (mean 3.55 and standard deviation 0.83) being involved in the communication process and actively involving the other. Again the practitioners had higher scores more consistently. This supports the conclusion that the practitioners attempt to provide non-verbal support by use of Energy, Hope and Enabling and Involving the patient. A similar result was noted in the student group.

5.5.5.2 End of coding Summary notes

5.5.5.2.1 Question 1: Did the homoeopath ask about allopathic medication the patient is taking?

This question covered the way the practitioners elicited information about other medication the patients were taking. (4.9.2.1 and Table 4.32). Most used direct or indirect questioning. A total of 5 practitioners did not ask about other medication. This could indicate a lower level of concern for allopathic medical diagnosis and management of the patient than in the student group. It could also demonstrate practitioners' experiences of homoeopathic cures where progress is made irrespective of other medication being taken. Under conditions of time pressure (private practice) the need to know the patients therapeutic regime, may be subsumed by the need to conclude the homoeopathic aspects of the consultation and prescription in as short a time as possible.

5.5.5.2.2 Question 2 Which lifestyle recommendations did the homoeopath make?

Far more recommendations for lifestyle changes were made by the practitioners than by the student group. (4.9.2.2 and Table 4.33). Practitioners made 6 recommendations for changing weight or diet, 11 for stopping or

reducing smoking, 4 for stopping or reducing alcohol, 5 for decreasing stress and 6 for increasing activity or exercise. These high numbers of recommendations reflect the experience and clinical exposure enjoyed by the practitioner group. It also reflects a need to manage the patient and introduce education into the approach to health. These incidences were far higher than in the student group, indicating the increased confidence level of the practitioners in feeling secure and sure enough o make recommendations and institute changes in patients lives. This was supported by the category correlations (5.4.3).

5.5.5.2.3 Question 3: the homoeopath summarize his/her recommendations near the end of the visit?

A total of 12 out of 20 cases were concluded with summary of recommendations. (4.9.2.3 and Table 4.34). Only 5 consultations did not have summary of recommendations. This again provides a possible reflection of the increased experience and confidence of the practitioner group. Practitioners appeared more confident to institute changes and make recommendations, and also recognised an important aspect of ensuring compliance i.e. summary of recommendations. (Roter et al., 2000: 3477).

5.5.5.2.4 Question 4: Describe overall tape quality?

Tape quality was consistently good in the practitioner group. (4.9.2.4 and Table 4.35).

5.5.5.2.5 Question 5: Miscellaneous Taping Anomalies

A large number of tapes had abrupt endings. (4.9.2.5 and Table 4.36). Possible reasons for this are long consultations with tape ending before consultation ended, forgetting to turn tape over, battery failure, termination of tape at patients request and termination of taping during physical exam.

No workable solution can be thought of for prevention of all sources of end of tape anomalies. Most would have affected only the closing and conclusion greeting.

Third party presence was noted in 2 of the tapes. This was due to the presence of patients' companions or children. The RIAS is considered robust enough to be used even in the case of third party observers.

Seven incidences of interruption were noted. All were due to telephones.

5.5.5.2.6 Question 6: Which best characterizes the homoeopath's style:

The dominant style of consultation used was a mixed Biomedical and Psychosocial style. (4.9.2.6 and Table 4.37). This is consistent with the literature review in terms of the homoeopathic consultation falling into the patient centred model. 6 cases were seen to be mostly psychosocial and 6 biomedical with limited Psychosocial. This could demonstrate the adaptation of the case taking process to fit the particular patient. It could also reflect the position of Mixed Biomedical/Psychosocial as a dominant pattern. Slight changes in focus would change the overall impression of such a consultation to either Biomedical/Limited Psychosocial, or Psychosocial.

5.6 Inter Group Comparison

5.6.1 Individual Category analysis

In the analysis using the individual Roter categories H_0 3 was accepted for most categories. i.e. there were no significant differences between the communication pattern categories of the practitioner group and the communication pattern categories of the student group in most cases.

H_0 3 was rejected for Homoeopath Gives Medical information category as well as patient Shows concern and patient Other Closed-ended Questions. Thus

significant differences were noted in the number of utterances in each of these categories between the two groups.

These three categories imply increased confidence and experience of the practitioners who were more comfortable with giving medical information and used this category significantly more. This is supported by the high number who summarised recommendations (5.5.2.3) and suggested lifestyle changes (5.5.2.2). The effect of this on patients could have contributed to the differences seen in the patient categories i.e. patients who are showing more concern may ask more questions to allay these concerns.

5.6.2 Super-category analysis

In the analysis using the Roter super-categories H_0 3 was accepted for most categories. i.e. there were no significant differences between the communication pattern super-categories of the practitioner group and the communication pattern super-categories of the student group. However there were more significant differences between super-categories than individual categories.

The following patient super-categories exhibited significant differences between the student and practitioner group: Emotional talk and Other talk. These show that the patients of both students and practitioners responded in very similar ways to the consultation process. In terms of the super-categories all the important information giving and affective categories demonstrated no significant differences. Patients of practitioners used more Emotional talk and Other talk, supplemental to the main information giving channels.

The following homoeopath super-categories exhibited significant differences between the student and practitioner group: Negative talk, Emotional talk, Open-ended Biomedical questions, Closed-ended Biomedical questions, Closed-ended Psychosocial questions, Psychosocial information giving, Psychosocial counselling and Biomedical counselling.

In terms of the communication patterns explored in the literature review these differences could point to differences in the emphasis placed on various parts of the process by students and practitioners. The students appear to focus more on the biomedical aspects of the patients' illnesses. This accounts for the difference in Biomedical questions (both Open-ended and Closed-ended) as well as the differences in the Closed-ended Psychosocial questions. This view is supported by the noted differences in the ratios (5.5.4) and the Global Affect Ratings (5.5.5.1). Practitioners employ more subtlety, psychosocial exploration, and direction of behaviour change (psychosocial and biomedical). The significant differences noted in the Psychosocial Counselling and Biomedical Counselling super-categories demonstrate this tendency.

Both students and practitioners use the Psychosocial model in consultation. However there are significant differences between the patterns used by each group. A number of these differences are attributable to greater experience, confidence and clinical exposure in the practitioner group. It accounts for the decreased incidence of question asking super-categories, the increased incidence of directive statements and counselling, and the increased incidence in Biomedical information giving.

These results are in contrast to results in an allopathic primary care setting where both residents and attending physicians used primarily medical and biomedical patterns. (Roter and Larson, 2001: 33).

Chapter 6: Conclusions and Recommendations

Based on the analysis of the data, statistically significant differences between the communication patterns of student homoeopaths and their patients and qualified homoeopaths and their patients were noted. These differences were evaluated by using two objectives.

6.1 Objective One

The first objective proposed to evaluate statistically significant correlations between the relative frequency of utterances made by the homoeopaths (student or qualified) to the relative frequency of utterances made by the patients. Significant correlations were noted between the relative frequency of utterances by homoeopaths and the relative frequency of utterances by their patients. The number of significant correlations was different in the student and practitioner group. Also the actual correlations between the super-categories were different for these two groups. This supported the finding from the second objective that there were significant differences between the communication patterns of qualified and student homoeopaths.

Roter and Larson (2001: 33) noted significant correlations between patient communication categories and those used by resident and attending physicians. These correlated categories were also different for the resident physicians and primary health care physicians.

6.2 Objective Two

The second objective proposed to evaluate statistically significant differences between the relative frequency of utterances made by student homoeopaths and their patients, and the relative frequency of utterances made by qualified homoeopaths and their patients. Significant differences were noted in the communication patterns between the two groups. The findings appear to support the recognition of lack of confidence, lack of clinical exposure and

support the recognition of lack of confidence, lack of clinical exposure and lack of experience in the student group as contributing factors in the differences between the two groups. Roter et al. (1987: 437) stressed the importance of these aspects of clinician competence. They noted the effect that task oriented communication categories (especially patient oriented skills such as giving information and counselling) had on patient recall and satisfaction.

Furthermore Roter et al. (1990: 347) noted significant differences between communication patterns employed by trained and untrained residents. Trained residents used more open-ended questions, fewer leading questions summarised main points more frequently, did more psychosocial counselling, and were rated as having better communication skills by the patient. Similar results were seen in the differences between the qualified and student homoeopaths' communication patterns. These differences as well as the use of more focussed and psychosocially directed questions and fewer leading questions were associated with more accurate diagnoses and management records.

6.3 Recommendations

Recommendations were made in terms of two areas: questions raised by this and similar studies leading to further research and practical considerations for conducting similar research.

6.3.1 Sample Size: Application of RIAS to further cases

Roter et al. (1997: 350) conducted their study using 534 patients of 127 primary care physicians. Data obtained from a large sample provided valuable statistical relationships. In the homoeopathic context application of the RIAS to further cases would similarly yield more information. The RIAS could be applied to a larger number of audiotaped consultations to facilitate further data gathering and the testing of results obtained in this study. As the first study in this field in homoeopathic research, it would be of value to firmly establish the

methodology and use larger data sources to more accurately determine communication pattern baselines.

6.3.2 Application of RIAS to different homoeopathic contexts

Ford et al. (1996: 1511) applied the RIAS to oncological consultations and Roter et al. (1999: 635) applied it to the obstetric consultation. Similarly RIAS could be applied to different homoeopathic contexts. Further areas of possible interest are:

- Exploration of follow up consultation as compared to initial consultation.
- Exploration of consultations with patients suffering from acute conditions.
- Correlation of homoeopaths' communication patterns with personal typology as established by homoeopathic interview and/or psychological personality testing.
- Assessment of effect of training interventions on communication patterns of homoeopathic students or practitioners.
- Exploration of possible correlations between communication patterns employed and patient satisfaction and/or clinical improvement, as measured by appropriate instruments.
- Application of RIAS to multiple tapes (20-40) of a single practitioner. This would be done with a very experienced practitioner to build up a picture of an individual homoeopath's communication patterns and the variations that may occur over different patient types. These variations in communication patterns could be correlated to patient typology as defined by the remedy given by the homoeopath in the consultation.
- Exploration of the differences in communication patterns of primary health care general practitioners in a South African setting and homoeopathic primary health care practitioners.

6.3.3 Geographical differences

This study used only students of the Durban Institute of Technology and qualified homoeopaths practicing in the Durban area. Further research could explore possible differences in communication patterns between geographically distributed practitioners (e.g. Cape Town or Johannesburg based homoeopaths). Alternatively differences in communication patterns between students at Durban Institute of Technology and Witwatersrand Technikon could be explored.

6.3.4 Customising RIAS: Adaptation of RIAS for Homoeopathic Use

The RIAS is a customise-able scale and is able to be adapted to specific needs and contexts. (Roter et al.,1997: 350). The following adaptations could be considered for specific use in the homoeopathic context:

- Refinement of practitioner question asking and patient Information giving categories to better reflect necessary homoeopathic points e.g. Modalities, Concomitants, Sensation. These were all grouped under Medical Information.
- Introduction of specific post coding questions e.g. "Did homoeopath ask about aggravations/ameliorations?"

6.4 Practical Recommendations

The researcher noted a few issues which could be avoided in future studies using the RIAS. These were related to practical issues of conducting the research. Recommendations to circumvent these issues are as follows:

- It was noted that some difficulty was experienced in finding patients willing to participate. In a larger study budgetary allocation could be made to reimburse practitioners for patient's consultation fees. Patients would thus have free treatment if agreeing to participate. This could encourage patients to participate and facilitate quicker turnover of coded tapes.

- Tape anomalies occurred due to incorrect use of tape recorders, battery failure, and misunderstanding the briefing regarding conducting taping. This could be avoided by having refresher briefings for participant homoeopaths during the course of the research process. A more detailed protocol description could also be issued with a description of necessary steps and checkpoints for participants to consider.

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Glossary of Terms

Communication pattern: the relative frequency distribution of utterances in each of the RIAS utterance categories. Also described by the composition of utterance supercategories.

Homoeopath: a medical professional using the methodology and modality of homoeopathy. For the purposes of this study the homoeopaths were either student homoeopaths or qualified homoeopaths.

Open to Closed Cone: This is a term used to describe the gradual change in type of questions from open-ended (information gathering and exploratory) to closed –ended (clarifying and delimiting).

Practitioner Group: Group of qualified practitioners participating in the study.

RIAS: Roter Interaction Analysis Scale

Student group: group of student homoeopaths participating in the research study.

Typology: Diagnosis of an individuals character and symptom complex in terms of homoeopathic remedy types.

Utterance category: each of the particular categories used in the RIAS for coding utterances.

Super-category: category aggregated from individual Roter categories according to the following schema.

Table G1: Table showing aggregation of individual categories into super categories.

Socio-emotional/Affective Exchange		
Name of Super-category	**Utterances comprised of**	**Group Using Utterances**
Social talk	Social talk	Patient and Homoeopath
Positive Talk	Laughs, Agree, Approves, Compliments	Patient and Homoeopath
Negative talk	Disagrees and Criticises	Patient and Homoeopath
Emotional Responsiveness	Shows Concern, Reassures and Shows optimism	Patient and Homoeopath
	Shows Empathy, Legitimises	Homoeopath only
Task Focussed/Instrumental Exchange		
Partnership Building	Asks for opinion, Asks for understanding Checking	Patient and Homoeopath
Open Questions – biomedical	Open-ended questions: Medical condition and Open-ended questions: Therapeutic regimen	Patient and Homoeopath
Open Questions – psychosocial	Open-ended questions: Lifestyle and Open-ended questions: Social/psychological	Patient and Homoeopath
Closed Questions – biomedical	Closed-ended questions: Medical condition and Closed-ended questions: Therapeutic regimen	Patient and Homoeopath
Closed questions – psychosocial	Closed-ended questions: Lifestyle and Closed-ended questions: Social/psychological	Patient and Homoeopath
Biomedical Info	Gives Information: Medical Condition, Gives Information: Therapeutic regimen	Patient and Homoeopath
Psychosocial Info	Gives Information: Social/psychological and Gives Information: Lifestyle	Patient and Homoeopath
Biomedical Counselling	Counsels/Directs behaviour: Medical condition and Counsels/Directs behaviour: Therapeutic regimen	Homoeopath only
Psychosocial Counselling	Counsels/Directs behaviour: Social/psychological and Counsels/Directs behaviour: Lifestyle	Homoeopath only
Facilitation	Back channel and Transition	Homoeopath only
Orientation	Direct instructions, orientation	Homoeopath only

Appendix 1: Practitioner Information Sheet

Title of Research: Communication Patterns in the Homoeopathic interview: A comparative study of 5th year interns and qualified practitioners.

Name of Researcher: Nicholas Nell

Name of Supervisor: Dr C.R. Hopkins

Introduction: The purpose of this study is to explore the differences between the communication patterns in a homoeopathic consultation conducted by trainee and qualified homoeopathic practitioners.

Selection Criteria: Practitioners are either 5th year homoeopathic students at the Durban Institute of Technology or qualified registered practitioners practicing in the Greater Durban Metropolitan Area with more than one year of practical experience. Patients should be over 18 years of age and English speaking. The consultation should be an initial consultation.

Procedures: This study will be done by audiotaping consultations between the homoeopath/student and the patient. These audiotapes will be coded using the Roter Interaction Analysis System. (RIAS). This system involves grading certain types of question or answer during the interview e.g. the practitioner might offer reassurance, or support. The patient may ask questions related to dietary changes or may ask questions about the possible outcomes of the condition. Each of these represents a different category in the RIAS and will be marked as such. Thus the actual content of questions or answers is less important than what type of question or answer they are.

Risks/Discomfort: There will be no risk to either patient or the practitioner. If discomfort is experience, either by the patient or the practitioner, the taping can be stopped.

Benefits: The benefits the practitioner may experience are indirect. These could be due to the enhanced awareness of their consultation style or due to training suggestions arising from the results.

Remuneration: There will be no remuneration for either patients or practitioners.

Costs of the study: The study is expected to cost R2985.

Confidentiality: The patient's and practitioners details (both medical and personal) will remain strictly confidential. This will be done by adhering to the following protocol:

- No copies of any of the tapes will be made.
- The tapes will be destroyed after the researcher has been awarded his degree.

- The tapes will be marked with numerical codes to avoid any identification.
- Only the student researcher and the supervisor will have access to the tapes.
- No records of the patient's name, surname, address or contact numbers will be made.

The consultation should proceed entirely normally apart from the fact that it will be audiotaped. The interaction during the physical examination will also be recorded.

If the patient or practitioner feels that the taping is uncomfortable or negatively impacting on the quality of the treatment the patient is receiving, the taping should be stopped. The patient's interest and health is protected.

Person to contact for problems and questions: Nicholas Nell (031- 4648905)

Reasons for withdrawal of patient without Consent: If the consultation (or tape recording there-of) is not completed the information will not be used in the study.

It is the responsibility of the homoeopath/student to approach patients who may be interested in the research. The patient should be given an information sheet and asked to sign a consent form. This should be given to the researcher with the tape of the consultation.

The researcher will supply a tape recorder for use during the research process.

By adhering to the research protocol there should be no costs to either the patient or yourself. The benefits of participation lie in the furthering of our understanding of the unique interaction that is the homoeopathic consultation. A précis of the insights and findings generated by this study will be distributed to all participating practitioners at the conclusion of the research process.

Thanking you in anticipation.

Yours Sincerely

Nicholas Nell

Appendix 2: Practitioner Consent Form

Title of Research project: Communication Patterns in the Homoeopathic interview: A comparative study of 5th year interns and qualified practitioners.

Name of Supervisor: Dr C.R. Hopkins

Name of Research Student: Nicholas Nell

(Please Circle the appropriate answer)

Have you read the practitioner information sheet? Yes/No

Have you had the opportunity to discuss this with the researcher? Yes/No

Do you understand the nature of this research project and it's structure? Yes/No

Do you understand the commitments involved in participating i.e. approaching patients for permission for the consultation to be audiotaped and taping the interview. Yes/No

Do you understand that the personal details revealed in this consultation will remain strictly confidential? Yes/No

If you have answered NO to any of the above Questions have you had the Opportunity to discuss this with the researcher? Yes/No

---

I..... the undersigned, hereby agree to participate in this research project.

.....
Signature

.....
Witness name

.....
Witness signature

.....
Date

Appendix 3: Patient Information Sheet

Title of Research: Communication Patterns in the Homoeopathic interview: A comparative study of 5th year interns and qualified practitioners.

Name of Researcher: Nicholas Nell

Name of Supervisor: Dr C.R. Hopkins

Introduction: The purpose of this study is to explore the differences between the communication patterns of trainee and qualified homoeopathic practitioners.

Selection Criteria: Patients should be over 18 years of age and English speaking. The consultation should be an initial consultation.

Procedures: This study is going to be done by analysing audiotapes of the consultation process. As a patient your input will consist of reading this Information Sheet and, if you agree to participate, to sign the Patient Consent Form. Once this is done the consultation will proceed entirely normally apart from the the tape recording. If at any stage you feel uncomfortable with being taped, you can ask that the taping be terminated. There will be no negative consequences either on the consultation process or on the quality of treatment you receive from your homoeopath.

Risks/Discomfort: There will be no risk involved in participating in this project. If discomfort is experience, either by the patient or the practitioner, the taping can be stopped, with no effect on the consultation process or on the quality of treatment received.

Benefits: The benefits of this study will be in terms of an increase in understanding if the homoeopathic consultation. This may result in an increase in the general quality of homoeopathic treatment.

Remuneration: There will be no remuneration for either patients or practitioners. Your participation in this study will however, help in trying to understand the ways in which homoeopathy and homoeopaths may benefit patients, as well as patterns of communication which may not be conducive to therapeutic results.
Costs of the study: The study is expected to cost R2985.
Confidentiality: The details that are revealed in the consultation (both medical and personal) will remain strictly confidential. This will be done by adhering to the following protocol:

- No copies of any of the tapes will be made.
- The tapes will be destroyed after the researcher has been awarded his degree.
- The tapes will be marked with numerical codes to avoid any identification.
- Only the student researcher and the supervisor will have access to the tapes.
- No records of the your name, surname, address or contact numbers will be made.

The consultation should proceed entirely normally apart from the fact that it will be audiotaped. The interaction during the physical examination will also be recorded.

If you or practitioner feels that the taping is uncomfortable or negatively impacting on the quality of the treatment the patient is receiving, the taping should be stopped. Your interest and health is protected.

Person to contact for problems and questions: Nicholas Nell (031- 4642328)

Reasons for withdrawal of patient without Consent: If the consultation (or tape recording there-of) is not completed the information will not be used in the study.

Thank you for your interest and participation.

Yours Sincerely

Nicholas Nell

Appendix 4: Patient Consent Form

Title of Research project: Communication Patterns in the Homoeopathic interview: A comparative study of 5th year interns and qualified practitioners.

Name of Supervisor: Dr C.R. Hopkins

Name of Research Student: Nicholas Nell

(Please Circle the appropriate answer)

Have you read the patient information sheet? Yes/No

Have you had the opportunity to discuss this with your practitioner? Yes/No

Do you understand that the information presented in this consultation will remain strictly confidential? Yes/No

Do you understand that you can withdraw from the research at any time during the consultation and ask that the audiotaping be terminated? Yes/No

Do you agree to participate in this research project i.e. allow audiotaping of your consultation? Yes/No

If you have answered NO to any of the above Questions have you had the Opportunity to discuss this with the practitioner or researcher? Yes/No

---

I..... the undersigned, hereby agree to participate in this research project.

.....
Signature

....
Witness name Witness signature

.....
Date

The Researcher would like to take this opportunity to thank you, the patient, for participating in this study. Your contribution is greatly appreciated and will help to further our understanding of the communication patterns of the homoeopathic consultation.

Appendix 5: Coding Sheet

Case Number: Date Coding:

PHYSICIAN	Opening
Personal	
Laughs	
Approve	
Comp	
Agree	
BC	
Empathy	
Concern	
R/O	
Legit	
Partner	
SDis	
Disapprove	
Crit	
?Reassure	
Trans	
Orient	
Check	
?Bid	
?Understand	
?Opinion	
[?]Med	
[?]Thera	
[?]L/S	
[?]P/S-F	
[?]Other	
?Med	
?Thera	
?L/S	
?P/S-F	
?Other	
Gives-Med	
Gives-Thera	
Gives-L/S	
Gives-P/S	
Gives-Other	
C-Med/Thera	
C-L/S-P/S	
?Service	
Unintell	

Case Number:

PATIENT	
Personal	
Laughs	
Approve	
Comp	
Agree	
Empathy	
Concern	
R/O	
Legit	
Partner	
Disapprove	
Crit	
?Reassure	
Trans	
Orient	
Check	
?Bid	
?Understand	
?Opinion	
[?]Med	
[?]Thera	
[?]L/S	
[?]P/S-F	
[?]Other	
?Med	
?Thera	
?L/S	
?P/S-F	
?Other	
Gives-Med	
Gives-Thera	
Gives-L/S	
Gives-P/S	
Gives-Other	
?Service	
Unintell	

Tape Summary

Interview code_____ Sex of provider
Date of coding_____ Sex of patient
Coder ID

Global Affect Ratings [(LO) 1 2 3 4 5 6 (HI)]

Affect	Homoeopath	Patient
Anger/Irritation		
Anxiety/Nervousness		
Dominance/Assertive		
Interest/Engagement		
Friendliness/Warmth		
Responsiveness		
Sympathetic/Empathetic		
Depression		
Emotional distress		
Energy		
Hopefulness		
Enabling/Involving		

1. Did the homoeopath ask about allopathic medication the patient is taking?

___Yes; Indirect style ___No
___Yes; Direct question
___Yes; Information intensive

2. Which lifestyle recommendations did the homoeopath make?

lose weight or change diet yes / no
cut down or quit smoking yes / no
cut down on alcohol yes / no
try to reduce stress yes / no
change level of physical activity yes / no

3. Did the homoeopath summarize his/her recommendations near the end of the visit? yes / no

4. Describe overall tape quality?
   ___good
   ___fair (somewhat difficult to understand)
   ___poor (explain:_____)

5. Abrupt beginning? yes / no If yes: brief history unknown
   Abrupt end? yes / no If yes: brief closing
   unknown
   Third party presence? yes / no
   Any interruptions? yes / no
   _3rd party interruption
   _telephone
   _Dr. leaves room
   _clinic staff participates

6. Which best characterizes the homoeopath's style?

   _____Biomedical (strictly)
   _____Biomedical / Limited psychosocial
   _____Biomedical / Psychosocial (mix)
   _____Psychosocial (mostly)

Additional descriptors of physician style:

Additional notes: