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**What Makes a 'Good' Doctor? The Patients'
Perspective**

**A thesis presented in partial fulfilment of the
requirements for the degree of**

Doctor of Clinical Psychology

at Massey University, Manawatu, New Zealand

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2018

Abstract

Personalised care by doctors has been shown to facilitate better engagement by patients in their care (Thorne, Oliffe, & Stajduhar, 2013). However, the communication required for care that is more effective has been primarily characterised from the perspective of medical experts. The patient perspective remains understudied. The aims of the current study were three-fold. Firstly, to explore the way patients' interpret their General Practitioner's (GP's) communication behaviour. Secondly, to organise these behaviours into practice styles describing patient preferences. Finally, to compare the practice styles patients prefer to the practice styles they experience, and examine the impact of preference mismatch upon patient-doctor alliance. To address these aims participants were interviewed about their positive experiences with their GPs, and thematic analysis conducted on the transcripts. This identified a set of 90 communication behaviours, which participants sorted by similarity, and multi-dimensional scaling was utilised to map the behaviour. To organise the behaviour further into practice styles preferred and experienced, 100 participants sorted 67 of the behaviours by both degree of helpfulness and relative frequency with which their GP utilises the behaviours.

As hypothesised, participants described behaviours consistent with collaborative interactions, which incorporate patient perspective, feelings, and problem-solving. The organisation of communication behaviours within the multi-dimensional map were consistent with such collaborative interactions, with decision-making and biomedical behaviours grouping with behaviours facilitating participation. Furthermore, the map also demonstrated communication varied along a unique relational dimension in addition to the predicted instrumental and affective dimensions. Participants organised

GPs' communication behaviour into five practice styles consistent with past research, but surprisingly, a high doctor-control, paternal practice style was not evident. The discrepancy between participants' preferred and experienced styles had a weak negative impact on patient-doctor alliance. These findings support the theories of social reciprocity and socio-pragmatics in General Practice consultations. The absence of a paternalistic practice style is consistent with the personality traits associated with GPs, which include agreeableness, abasement, and nurturance. The findings imply that it is important for doctors to facilitate patient participation and tailor practice behaviour to patient preferences for a personalised experience.

Acknowledgements

I sincerely thank my supervisors, Shane, Don, and David. Having been around academia for a while, I know that academics perform many roles, including and not limited to teacher, administrator, researcher, and in some cases clinician. Thus, you have contributed to this research in a number of ways while also managing other responsibilities, and I am grateful for your contributions.

I must extend my sincere gratitude to the participants/patients who contributed to this research in a range of ways. Some of you shared detailed stories of your health experiences with me. These stories were both personal, and at times they were clearly emotionally arousing for you. I am humbled by the level of honesty you displayed, and the level of trust you extended to me. Over one hundred people participated in sorting tasks. I thank you for being generous with your time, and for your patience. I am also deeply thankful to the participants who aided in the recruitment process. I have to admit that when I started this project I was doubtful of my ability to recruit the necessary number participants, and weary of the time required. If memory serves me, I collected one hundred data sets in less than six months. Thank you.

I must also thank the General Practitioners and practice managers who met with me when I made impromptu visits, and allowed me to advertise the research in their waiting rooms.

Finally, although the university states we can only acknowledge people who contributed to the content of a thesis, I am going to be a rebel and thank my parents for their ongoing support without which I'm not sure where I would be, but possibly cold and hungry.

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Abbreviations

ANOVA -	Analysis of variance
GOPA -	Grouping, Opposites, Partitioning, Addition
GP -	General Practitioner
HCA -	Hierarchical Cluster Analysis
MDS -	Multi-dimensional scaling
MOSS -	Method of successive sorts
PCA -	Principal component analysis
PCC -	Patient centred communication
SDM -	Shared decision-making

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Preface

“For some patients, though conscious that their condition is perilous, recover their health simply through their contentment with the goodness of the physician....” – Hippocrates, Precept VI (Hippocrates, 2014, p. 319).

Hippocrates is regarded as the forefather of Western medicine, practicing as a doctor approximately 400 BC. We can summarise the contributions of Hippocrates and his contemporaries to modern medicine in two broad strokes: guidelines for the professional behaviour of doctors which include the nature of the doctor-patient interaction, and a scientific approach to human health, grounded in observation and reason (Miles, 2003). Although the scientific approach is important to modern medicine, it has only seen limited application to understanding the doctor-patient interaction. Perhaps modern medicine finds it challenging to integrate these two aspects of Hippocratic philosophy due to the medical model’s requirement for specificity.

Specificity speaks to the aetiology and mechanisms of change of pathological states. That is, by acting on the mechanisms of pathological states such as an infection, and being solely responsible for change, a therapeutic intervention has specificity (Wampold, 2010). In the context of mental health, this requirement for specificity has led the field of psychology and psychological interventions to struggle for acceptance and legitimacy under the medical model. Yet, while specificity has driven psychological intervention research, it has become apparent that specific components of treatment in the mental health context may be relatively unimportant. Rather than focus on specific therapeutic techniques, the patient perspective focuses on aspects of patient-clinician

relationship, or ‘common factors’ found in all psychological interventions (Levitt, Butler, & Hill, 2006). These include aspects of the therapeutic relationship such as empathy and collaboration on the goals and tasks of treatment. Some aspects of patient-doctor interaction are implicit in the Hippocratic Oath, and more widely discussed by Hippocrates’s peers.

The Hippocratic Oath is a foundational document in the ethical behaviour of modern medicine. The Oath can be summarised as a pledge to do the following while practising medicine: respect colleagues, prioritise patients’ needs, practice within one’s area of expertise, do not harm patients, refrain from unprofessional relationships with patients, and protect patient-doctor confidentiality. Despite the popularity of the Oath, as discussed by Miles (2003), modern ethicists challenge the relevance of the Oath as they argue it is grounded in a paternalistic relationship and communication style, inconsistent with the ethics of medical practice today. These ethicists define paternalism as withholding information from the patient in order to coerce the acceptance of treatment. However, Miles (2003) argues there is little evidence for such paternalism in the egalitarian Greek society of the time. Plato writes of voluntary and informed patient-doctor relationships, and Greek texts suggest doctor-patient conversations should begin by listening to the patient. That is, the patient perspective should be given priority.

In summary, although the ideal characteristics of doctor-patient communication style were first suggested over 2,500 years ago, these characteristics are still the subject of debate. A recent review highlighted that the patient’s perspectives and preferences have been neglected in the medical communication research literature (Deledda, Moretti, Rimondini, & Zimmermann, 2013). In light of this, it appears appropriate to now explore the two aspects of Hippocrates writing together, that is, to take a scientific approach to understanding the impact doctor-patient communication has on health. In

order to understand the truth of the previous quote, it may be necessary to realise the sentiment expressed in the following quote from Hippocrates:

“Life is short, the Art long, opportunity fleeting, experiment treacherous, judgment difficult. The physician must be ready, not only to do his duty himself, but also to secure the co-operation of the patient, of the attendants and of externals.” – Hippocrates, Aphorisms (Hippocrates, 2014, p. 99).

Chapter One: Introduction

The assertion within the medical communication research literature is, effective doctor-patient communication has a positive impact on patient health (Griffin et al., 2004; Stewart, 1995; Stewart et al., 2000). This includes a direct impact upon symptoms of illness such as blood pressure and mood (Fallowfield, Hall, Maguire, Baum, & A'Hern, 1994; Orth, Stiles, Scherwitz, Hennricus, & Vallbona, 1987), and indirectly on health behaviour such as adherence to medication (Dimatteo, Reiter, & Gambone, 1994). However, this research predominantly documents the doctors' perspective. This was highlighted by Deledda and colleagues (2013) who estimated there were only 27 research publications documenting the patient perspective in 2013. Furthermore, the common research focus in the literature are the communication functions of information provision, fostering the relationship, and shared decision-making (SDM) (de Haes & Bensing, 2009). Arguably this focus stems from ethical considerations- namely, being patient-centred by fully informing patients about their health and treatment options, and enabling full participation in decision-making (de Haes, 2006). Other behaviours such as attending to patient emotion, have been relatively neglected in the research literature, despite their positive impact on health (Sep, van Osch, van Vliet, Smets, & Bensing, 2014). Thus, the overall objective of this thesis is to gain insight into the patient perspective.

We know which communication behaviours medical doctors value and prioritise in research and practice, which behaviours do patients value? This was the impetus for Study 1. Participants were interviewed to identify behaviours they value in positive experiences with their General Practitioner (GP). In addition, as doctors' responses to emotion had been relatively neglected in the literature these were also queried. The

general practice context was chosen due to the more established nature of the patient-doctor relationship, and greater frequency of encounters from which participants could draw. Analysis took place at the explicit level with thematic analysis.

Within the medical literature there are also dominant theoretical models with social and affective dimensions (Roberts & Aruguete, 2000), and functional frameworks through which communication behaviours are understood. These functional frameworks include varied combinations of the following themes: fostering relationships, responding to emotions, educating patients, information exchange, and decision-making (de Haes & Bensing, 2009). However, we again see the dominance of the doctors' perspective within these interpretive frameworks as they are generated and supported through observational coding of doctors' behaviour (Roter & Larson, 2002). Not only do these coding systems neglect patient perspective by failing to account for patient interpretation of doctors' behaviour, there is between-patient variance in the interpretation of the same behaviour. Thus, the aim of Study 2 was to explore the way patients interpret and organise doctors' behaviour. The research question was, are existing theoretical and functional frameworks of behaviour valid from the patient perspective? To address this question, a methodology of card sorts followed by multi-dimensional scaling (MDS) was applied to behaviours identified in Study 1. In this approach participants are asked to sort behaviours based on perceived similarity, not preference, and sorting is atheoretical. That is, participants are not asked to rate behaviours on predetermined dimensions.

Another dominant theme in the medical literature is the ideal of a patient centred communication (PCC) style. Although an ethical ideal, elements of PCC such as SDM for example, have been found to have non-significant or small positive associations with health outcomes. As part of this dominant medical perspective PCC has been equated to

patient preference. Patients may have other preferences, thereby explaining the weak relationship between communication and outcomes. Another explanation may be outcome measures which fail to capture interpreted meaning of behaviour, and therefore patient perspective. An outcome measure should gauge a dependent variable, which in turn is sensitive to variance in the independent variable. One such measure may be therapeutic alliance which has recently begun to be utilised in a range of medical contexts. Alliance may be sensitive to affective, instrumental, and relational aspects of communication. In summary, the aim of Study 3 was to explore patients' preferred communication styles, and how these compare with the communication styles they experience with their GP. Then the relationship of alliance to communication styles was explored. The methodology utilised was a Method of Successive Sorts (MOSS), in which participants sorted behaviours by both importance and frequency of experience. The data from these sorts allowed the generation of communication profiles by reference to themes (hotspots) evident in the multi-dimensional map generated in Study 2.

In summary, previous research literature has focused on communication behaviour from the doctors' perspective. This research will explore the patient perspective as a knowledge gap. This will involve investigating the behaviours patients' value including emotion-focused behaviour, the way patients conceptualise these behaviours, and how patients vary in their preferred communication styles.

Research Aims and Questions

Thesis aim. The broad aim of the thesis was to develop insight into the patient perspective of effective doctor-patient communication.

Study 1. A thematic analysis of interview transcripts in which participants discuss positive experiences with their GP. The specific research questions addressed were:

1. Which communication behaviours are perceived by patients as contributing to GPs effectiveness?
2. Given the lack of attention given to communication and patient emotion in the research literature, a more specific question was asked. How do effective GPs respond to patient emotion, from the patient perspective?

Study 2. A multi-dimensional map of GP behaviour from the participant perspective. This map acts as a conceptual framework, or lens through which participants' preferences could be understood in Study 3. The specific research questions were:

1. How do patients organise and interpret GPs behaviour?
2. Are existing frameworks of medical communication valid from the patient perspective?

Study 3. An exploration of participant communication preferences. Participants sorted GP behaviours by both importance (preference) and frequency of experience. The specific research questions addressed were:

1. What are the communication styles preferred by patients?
2. How close is the match between preferred and experienced communication styles?
3. Is alliance sensitive to the discrepancy between experienced and preferred communication styles?

Structure of the Thesis

This thesis is presented in five chapters. Following this introductory chapter, chapters 2-4 each pertain to a study intended as a published paper, but as each publication is intended for different journals, consistent formatting has been chosen for continuity and ease of reading. Each of these chapters begins with a review of the relevant literature to both situate the research, and in the case of chapter 3 and 4, transition from the previous study. Also in the interest of continuity, chapters 2-4 do not have discrete abstracts, and the references are consolidated at the end of the thesis.

Chapter 1 is a summary of the literature in this area of research, the gaps in this knowledge base, and a summary of the three studies and how they approach these gaps. Chapter 2 presents Study 1, a thematic analysis of the behaviours experienced by participants in positive experiences with their GPs. Chapter 3 presents Study 2, an attempt to map the conceptual space of these communication behaviours from the participant perspective. Chapter 4 presents Study 3, which explores participants' subjective preferences for communication behaviours within the conceptual space, and generates profiles of communication preferences.

Chapter 5 as the final chapter of the thesis, summarises and discusses the findings, implications, and limitations of the research, and the contribution to filling the knowledge gap. Finally, future research directions emerging from this discussion are considered.

Chapter Two: The Patient Perspective

There is a sizeable body of evidence supporting a positive relationship between doctor communication and patient-health outcomes, including: improved recall of health information (Roter, Hall, & Katz, 1987), greater adherence to medication (Dimatteo et al., 1994), fewer diagnostic tests and referrals, and improved physical and psychological health (Fallowfield, Hall, Maguire, & Baum, 1990; Kaplan, Greenfield, & Ware, 1989; Stewart et al., 2000). Furthermore, it has been found that when physicians develop good therapeutic relationships with their patients, they experience greater job satisfaction and perhaps a decreased likelihood of burnout (Ramirez, Graham, Richards, Cull, & Gregory, 1996). Therefore, it is important to define the constituents of effective patient-physician communication in order to enhance the health of both patients and physicians, and teach and evaluate effective communication. However, our understanding of effective doctor-patient communication is impaired in three ways. We are lacking a theoretical model of communication within the doctor-patient relationship; variance in the communication constructs that are measured leads to challenges integrating research findings; and, we have limited understanding of patients' communication preferences.

Our current research explores the communication behaviours patients prefer when consulting with their general practice doctors. In Study 1, we elicit participants' preferred communication behaviours from participant accounts of positive interactions with general practice doctors. We build on this in Study 2 by organising these preferred behaviours and mapping the conceptual space into thematic clusters and dimensions. With this map, we intend to both highlight the underlying relationship between behaviours, as well as provide a platform upon which construct definitions can be stabilised. Finally, having objectively defined the conceptual space of communication

behaviour, in Study 3 we generate profiles of behaviour representing idiosyncratic variation in participant-preferences within the map.

In order to conduct reliable, repeatable research, we must define the preference construct. As highlighted by Kravitz (1996), a number of terms are utilised interchangeably in the literature to refer to patient preferences. These terms include wants, needs, wishes, desires, hopes, beliefs, priorities, preferences, and expectations. Expectations subdivide further into practical expectations or likelihood, perceived duty, and ideal expectations. For clarity, our current research will only utilise the term preference. In Study 1, our elicited preferences arise from participant experience and most closely align with practical expectations. In Study 3, we explore practical expectations again by quantifying the frequency of behaviour, but we compare and contrast these with preferences in the form of ideal expectations when determining the helpfulness of behaviours.

Patient Preferences

Patient preferences for doctor communication behaviour, are of interest to researchers because the degree to which preferences are fulfilled is believed to be a determinant of patient satisfaction and treatment adherence (Baron-Epel, Dushenat, & Friedman, 2001). There is some evidence to support this relationship. Pre- and post-consultation surveys indicate greater fulfilment of preferences is associated with a greater degree of satisfaction and treatment adherence (Ruiz-Moral, Pérula De Torres, & Jaramillo-Martin, 2007; Zebiene et al., 2004). However, other research finds a low correlation between preference fulfilment and patient satisfaction (Baron-Epel et al., 2001). Furthermore, closer examination of these data reveals the relationship between preference fulfilment and outcomes is not simple. Patient preferences are generally reflected in doctor behaviour (van den Brink-Muinen, van Dulmen, Jung, & Bensing,

2007) with an overall rate of preference fulfilment greater than 70% (Ruiz-Moral et al., 2007; Zebiene et al., 2004). However, the most frequently reported preference, acquiring information, had the lowest impact on satisfaction (Zebiene et al., 2004). Currently, such research is difficult to reconcile because patient preferences are an understudied area; a 2013 review identified only 27 publications (Deledda et al., 2013). Furthermore, our current research is predominantly concerned with patient preferences with regard to two of the functions of physician communication: information provision and fostering a relationship. The other important functions of communication are strengthening self-management of health, shared decision-making, and attending to patient emotions (de Haes & Bensing, 2009). We discuss the interaction between patient preferences and communication function further below.

Information provision. The most frequently stated preference by patients in consultation with GPs is the provision of information, for example one study found 89% of patients desired information (Zebiene et al., 2004). However, the relationship between information provision and positive patient experiences is not simple. This is well illustrated by the research of Collins and colleagues (2013), who utilised both qualitative and quantitative methodology to explore the factors contributing to parents' reactions when receiving the news that their new-born child carries a gene for either cystic fibrosis or sickle cell anaemia. This is a message that may contain ambiguity for parents, as two copies of the gene are required for expression of either disease. This research showed that both the content and the quality of the information provided were important to parents. Predictably, parents describe being reassured, relieved, and calm when informed their child was healthy and they should not worry, and when information on statistics and inheritance was provided. With regard to the significant qualities of the information, the research shows important aspects included

communication ‘traits’ of the GP and the setting in which the information was delivered. That is, when GPs delivered information with a calm manner, without jargon, took their time, and were thorough, the information had a positive impact. Patients also preferred receiving the information in a face-to-face setting from a doctor they were familiar with rather than over the telephone or by voice message. These latter indirect approaches resulted in worry and anxiety for parents (Collins et al., 2013). In summary, a number of factors contribute to meeting a patient’s information preferences and these extend beyond the content and amount of information provided. However, there is also variance in patient preferences, and this is evident in the interaction between information provision and decision-making preferences.

Shared decision-making. Patient preferences for the decision-making process are often presumed to include full disclosure of medical information, participation, and decisional control (de Haes, 2006). While these presumptions stem from the ethical ideals of patient autonomy and beneficence (de Haes, 2006), in practice they are not universally held. In some cases, patients interpret shared decision-making as abandonment and abdication of responsibility by the physician (Mazzi et al., 2013). Variance in patient preference is evident in the oncology and palliative care contexts.

Thorne and colleagues (Thorne et al., 2013) interviewed patients with a cancer diagnosis, with a focus on the qualitative aspects of decision-making consultations. They identified both between-patient and within-patient variance in preferences, as patients can simultaneously hold seemingly contrary preferences. Patients preferred empathy but also professional distance; they preferred the standard best practice treatment, but wanted their unique situation taken into account. Patients further preferred honest opinions, but desired the maintenance of hope, and felt that too much information was distressing. Such potential for distress in the palliative care context is

managed in spite of explicit honest medical information, through the reassurance of ongoing support from physicians, thereby maintaining hope (van Vliet et al., 2013). Thus, patients can accommodate seemingly inconsistent preferences. In order for physicians to both recognise and accommodate such variance requires tailored communication, which is only possible through the development of relationships that allow the physician to know the patient.

Fostering the relationship. Research in the UK and Sweden has indicated approximately 70% of the population value an ongoing relationship with the same GP, and this percentage increases with age and the chronicity of illness (Hjortdahl, 1992; Kearley, Freeman, & Heath, 2001). Consequently, the current trend towards larger general medical practices in which patients may see different doctors at each presentation, compromises an aspect of healthcare valued by patients (Baker et al., 2007).

However, research indicates a long-term relationship is not always related to patient satisfaction. Patients can have long-term relationships in which they are dissatisfied with their GP, and conversely they may have short-term relationships which are perceived to be satisfactory (Frederiksen, Kragstrup, & Dehlholm-Lambertsen, 2009). von Bülzingslöwen and colleagues (2006) have explored the patient values underlying doctor-patient interpersonal continuity and proposed interpersonal continuity confers an overall sense of security when four core values are met: coherence, a trusting relationship, confidence in care, and accessibility of care. The researchers define coherence as knowing the patients' history, noticing changes in health status, and taking a holistic approach. A trusting relationship is defined as respect, understanding, taking the patient seriously, and allowing participation (von Bultzingslowen et al., 2006).

The research of Frederiksen and colleagues (2006) draws similar conclusions, but instead of trusting relationships and coherence, defines the similar constructs of respecting and remembering the patient. Respecting the patient is operationalised in process terms as listening, understanding, confirming, and accepting, which in turn involves non-verbal behaviour such as nodding and keeping eye contact. While remembering involves recalling both the details of the patient and their wider life in addition to their medical issues. Both remembering and respect are part of the social psychological concept of recognition. Recognition signals to the patient that they are being taken seriously, and allows patient identity to be generated relationally, forming the basis of a good interpersonal relationship (Honneth, 1995).

Conceivably, the nature of a presenting health issue, acute or chronic, could influence patient preferences for their GPs behaviour, and the nature of the relationship. Arguably this consideration overlaps with the previous discussion of continuity, as chronic issues are more likely to involve long-term relationships with doctors. Indeed, research indicates patients with chronic issues have a greater preference for interpersonal continuity than those with acute presentations (Pandhi & Saultz, 2006). However, as previously discussed, the valued aspects of continuity, being remembered and respected by the doctor, are dissociable from length of relationship (Frederiksen et al., 2009). Furthermore, respectful communication skills can be evident in single acute presentations, and long-term relationships are more likely to involve the management of chronic health issues. Whereas, acute issues may be more likely in the context of emergency health services.

Although different medical contexts could influence the nature of doctor patient-relationships research across a range of contexts including oncology, palliative care, and general practice, indicates patients value the interpersonal qualities of relationships with

their physicians. These qualities include honesty, respect, compassion, and trust (Branch, 2000; Quirk et al., 2008; Thorne et al., 2013; van Vliet et al., 2013; Walczak et al., 2013). Branch (2000) argues that these characteristics equate to a definition of a caring relationship. As these relationship characteristics are open to interpretation, Quirk and colleagues (Quirk et al., 2008) conducted a literature review and utilised lay interpretations of recorded patient-doctor consultations to define a ‘caring relationship’ in terms of behavioural preferences. Table 1 shows these behaviours.

Table 1.

Behaviours Associated with Patient Perception of a Doctor's Caring Attitude

Behaviour Category	Behaviour
Communicate effectively	Listen, ask questions and look for clues using intuition
	Inform as needed (right amount of information and speed)
	Choose words carefully and check for meaning
	Be direct and straight forward but not abrupt
	Be consistent in your verbal and nonverbal communication
	Exhibit a soft but confident tone, slow pace, and comfortable appearance (this includes using silence and taking time)

Arrange to meet healthcare needs	Help the patient move forward with the next steps (follow-up) Act quickly and decisively while preserving patient autonomy
Respect	Know the patient but focus on the problem Balance hope and reality Apologize after an error
Empathize	Offer measured empathy Carefully craft empathic statements

Note. Adapted from Quirk et al. (2008)

Two characteristics of these behaviours are noteworthy. Firstly, preferences again seem contrary, or at least qualified, despite the search for a more precise operationalisation of care. For example, ‘Be direct and straightforward but not abrupt’. These qualifiers perhaps reflect the accommodation of both within-patient limits and between-patient variance in communication behaviour preferences. Some of this between-patient variance arises from variance in the meaning assigned a given behaviour. For example, the expression, ‘Is there someone you can call or talk with?’ following a cancer diagnosis, was experienced as caring by some patients and uncaring by others (Quirk et al., 2008). Moreover, in general patients who prefer a task-oriented doctor interpret a medical-focus as caring, whereas patient-centred preferences are characterised by seeking and incorporating the patient perspective (Swenson, Zettler, & Lo, 2006). The second noteworthy characteristic, is the range of caring behaviours, extending from task-oriented (e.g. information provision), to social (e.g. know and respect the patient, apologise), to emotion-focused (empathy).

Attending to emotions. One of the most understudied, yet potentially powerful considerations of doctor-patient communication behaviour and patient preferences therein, is attending to emotion. Emotion can have a direct and negative impact on health indicators such as depressive and anxious feelings (Fogarty, Curbow, Wingard, McDonnell, & Somerfield, 1999; Pinguart & Duberstein, 2010; Schofield et al., 2003), immune status, wound healing (Cohen et al., 1998), and pain management (Klossika et al., 2006). The indirect impact of emotion is hypothesised to occur by reducing the efficacy of doctors' task-oriented behaviour as physiological arousal narrows patients' attention (Schwabe, Joëls, Roozendaal, Wolf, & Oitzl, 2012; Sharot & Phelps, 2004). This narrowed attention, in turn, reduces the recall of information (Schwabe et al., 2012), perhaps partly explaining why patients forget 40-80% of provided information (Jansen et al., 2010; Kessels, 2003; Sep et al., 2014; van der Meulen, Jansen, van Dulmen, Bensing, & van Weert, 2008).

Affect-oriented communication research supports this hypothesised association between recall of medical information and emotion. Sep and colleagues (2014) have shown increased recall of medical information when doctors used empathic statements in their communication. Such statements included qualities of reassurance and ongoing support. Two examples were, 'But whatever action we do take', and 'However that develops, we will continue to take good care of you', as well as 'I completely understand your reluctance'. In another study, researchers found that anxiety amongst patients decreased and positive outcome expectations increased, but only when outcome expectations were communicated in an empathic style with statements such as, 'I understand how you must be feeling' (Verheul, Sanders, & Bensing, 2010). The general conclusion is that the negative impact of health-induced emotion is moderated by affect-oriented communication, such as empathic statements.

Despite the potential moderating effect of affect-oriented communication behaviour, patient preferences for such behaviour is not necessarily given primacy in research and patient experience. For example, when lay research participants observed and discussed medical consultations recorded in general practice, the greatest number of participant comments were concerned with biomedical task-oriented behaviour (Mazzi et al., 2013). However, this may be a reflection of the availability of such behaviour for critique, rather than relative significance, as task-oriented behaviour represents 57-75% of doctors' expressions in general practice (Bensing, Roter, & Hulsman, 2003; Levinson, Roter, Mullooly, Dull, & Frankel, 1997; Paasche-Orlow & Roter, 2003). This is supported by research; participants commented less on affective-oriented expressions by doctors, but such expressions received the highest proportion of positive participant comments (Mazzi et al., 2013). A similar discrepancy was noted in pre- and post-consultation surveys of preference fulfilment. Although, information provision was the most frequently cited and met preference, fulfilling preferences for understanding and emotional support had a stronger impact on satisfaction. Furthermore, preference research utilising the Medical Interview Satisfaction Scale (MISS) indicates the affective subscale has the greatest influence on overall satisfaction (Wolf, Putnam, James, & Stiles, 1978; Zebiene et al., 2004). In summary, there is a relative bias in both practice and the preference research favouring task-oriented behaviour over affect-oriented behaviour, which does not necessarily reflect the relative impact of the behaviours.

However, research will be impaired without consistent operationalisation of affect-oriented behaviour, and examples of such behaviour in the literature are varied. Mazzi et al. (2015, p. 1218) define affect-oriented expressions as "statements that are related to empathy or an inviting attitude, reassurance, facilitation, listening and not

being judgmental”. Other examples of emotion items from a research questionnaire include: ‘understands my feelings’, ‘takes account of my opinion’, ‘shows interest’, and ‘listens to everything I have to say’ (Delgado et al., 2008). As previously seen when identifying behaviours considered important for developing a caring relationship, affect-oriented behaviour includes a wide range of behaviours. The range of affect-oriented behaviours found in a recent literature review are summarised in Table 2 (Deledda et al., 2013). These behaviours are not limited to those explicitly and directly exploring emotion, and include task-oriented and social communication behaviours, such as listening.

Table 2.

Behaviours Utilised by Doctors when Responding to Patient Emotion

Behaviour Category	Behaviour
Exploring emotional issues	Exploring concerns
	Looking for clues using intuition
	Letting the patient convey concerns
Listening	Listening to the patient
	Devoting enough time to the patient
	Not interrupting the patient while explaining concerns
	Using silence
Responding to emotions/reassurance/empathy	Giving support for anxiety/emotional issues

	Helping patients to deal with emotional issues
	Giving explanation of emotional problems
	Reassuring
	Being empathic
Empathic body language	Keeping eye contact
	Avoiding moving towards the door before concluding
	Not being hesitant to touch the patient
	Consistency in verbal/nonverbal communication
	Soft but confident tone
	Slow pace dictated by the patient
	Smiling

Note. Adapted from Deledda et al. (2013).

Summary and Research Direction

An important part of elucidating patient preference will be defining and organising communication behaviour. The preceding discussion organised behaviour and preference by communication function but there are clear interactions or overlaps between these functional categories. For example, listening to concerns conceivably has a task-oriented function in eliciting information while also fostering a relationship and

moderating affect. The multiple overlapping functions of communication behaviour are consistent with the range of demands that patients experience in health contexts.

Health contexts contain uncertainty and high stakes, and require patients to process large amounts of complex information coloured by ambiguity, uncertainty, and affect (Epstein & Peters, 2009; Epstein & Street Jr, 2011); a high cognitive and affective load. To redistribute this load, researchers believe patients invoke social interactions (Entwistle & Watt, 2006). For example, decision-making is often distributed over multiple medical encounters and a range of social contacts (Rapley, 2008). The impact of decisions on the well-being of others is also taken into consideration (Epstein & Street Jr, 2011). This collaborative communication has the goal of 'shared mind': a state of collaborative cognition, feeling known, understood, and empathetic, a state facilitating problem solving and meaning making.

In summary, matching doctors' communication behaviours to patient preferences may be one mechanism by which communication enhances outcomes. However, the association between fulfilling patient preferences, satisfaction, and health outcomes is currently unconvincing. There are several possible reasons for this; one is simply a failure to match patient preferences due to the variance in the presentation of preferences. Alternatively, doctors may be matching some preferences such as information provision but not others such as empathic behaviour. Unfortunately, these possibilities are conjecture as the literature elucidating patient perspective and preference is limited. Elucidating and organising preferences will be an important foundational step.

In Study 1, we made design decisions to compensate for known methodological artefacts and biases in this research field. Previously, quantitative methods have focused on task-oriented behaviour, whereas qualitative approaches tend to invoke behaviours of

relationship development. Within qualitative research, framing artefacts have been noted - when questions are asked about medical consultations, biomedical task-oriented behaviour emerges, while a focus on the physician elicits relationship behaviours. Consequently, we utilised a combination of broad and more specific questions. We allowed participants to speak freely about what makes their GP a 'good' doctor, but we then directed participants, with open-ended questions pertaining specifically to the consultation and emotion behaviour, if these areas were not spontaneously discussed.

Study 1. Thematic Analysis of the Patient Perspective of General Practitioner Social-Emotional Communication

Communication by physicians can have a positive impact on patients' health outcomes, for example, decreasing anxiety and lowering blood pressure. However, positive findings in the literature are not unanimous, with only 44% of randomised controlled studies showing improved health outcomes (Griffin et al., 2004), and some cross-sectional correlational studies producing inconsistent results (Gabbay et al., 2003; Putnam, Stiles, Jacob, & James, 1985; Street & Voigt, 1997).

The hypothesised reasons for these inconsistent outcomes vary (Street, Makoul, Arora, & Epstein, 2009). One source of inconsistency is the failure by researchers to operationalise communication consistently, which impairs both attempts to find consensus and research to establish causality. Another source of inconsistency is the failure by doctors to match specific elements of their communication to the preferences of patients. For example, research suggests 57-75% of GP expressions are task-oriented (Bensing et al., 2003; Paasche-Orlow & Roter, 2003). Yet, in lay reviews of GP communication, affective communication, such as expressions of empathy, received the greatest proportion of positive comments (Mazzi et al., 2015).

The separation of task and affect-oriented communication and confusion about their relative importance, is a reflection of content bias in the research literature. Research into information provision tends to dominate quantitative studies involving communication preferences, whereas qualitative studies focus on fostering relationships. To a lesser extent, both methodologies also explore doctors' responses to emotions but a further bias is evident: they differ in their attention to the nature of emotion responding. While quantitative research focuses on explicit responses, qualitative research was

concerned with more indirect emotional responses such as tone of voice, pace, use of silence (Deledda et al., 2013). Thus, there are gaps in the knowledge base with regard to emotion-related behaviour.

In practice, task- and social-emotional behaviours are not separable in medical consultations. Medical decision-making, for example, can involve large amounts of complex, ambiguous information, with significant and uncertain consequences; thus, patients encounter both high cognitive *and* affective load (Epstein & Peters, 2009; Epstein & Street Jr, 2011). Collaborative problem-solving is thought to both compensate for such cognitive load and support emotional and psychosocial well-being (Meegan & Berg, 2002). For example, men coping with prostate cancer report lower levels of anxiety and depression when they can discuss treatment decisions with their wives (Lepore & Helgeson, 1998). The recognition of the role of social support in health decisions, and the involvement of language, emotion, and action in communicating understanding led to a proposed patient-doctor relationship described as the ‘shared mind’: a relationship characterised by collaborative problem-solving, attunement to the patient’s perspective and feelings, and making sense of health experience (Epstein & Street Jr, 2011).

In our present study, we were interested in all aspects of communication behaviour preference, but we were also mindful of previous content bias and the influence of framing on participant responses. There are a lack of studies focusing on the patient perspective, and behaviour related to emotion. In this study the aim was to address these gaps in the literature. We examined patient preference by asking participants two open-ended questions: “What does your doctor *do* to be a *good* doctor?”, and “How does your doctor respond to emotion?” We hypothesised that positive experiences would be characterised by highly collaborative relationships, and both problem-solving and

attunement to participant feelings and perspectives would be apparent; thus, facilitating accommodation of a range of participant preferences and responses to emotion.

Method

Participants

Participants (14 females, one male, $M_{age} = 44.20$ years, $SD_{age} = 21.30$, age range: 21-92 years) were recruited with advertising in Palmerston North, New Zealand. Flyers were posted in 22 general practices, on noticeboards on the Massey University Campus, and a press release was published in a local newspaper (Appendices B, C, and D). There was a specific attempt to recruit more male participants by giving an educational presentation about the research to a men's health group. Four of the participants responded to advertising in their General Practice, six of the participants were recruited via university advertising, five responded to the press release. The inclusion criteria for participants were an age of at least 18 years, and positive experiences with their GP. The principal author, research supervisors, and medical doctors were excluded from the research, as were terminally ill patients or those with a desire to talk about primarily negative experiences. One potential participant was excluded due to a desire to talk about primarily negative experiences with a GP. Four of the participants were students, two were retired, and nine were working in business administration. Eleven of the participants were of NZ European ethnicity, two were Western European, one was Māori, and one was American. Participants received a \$20 grocery voucher as a gratuity.

Materials

An information sheet detailed the aims of the research, the requirements of participation, the use of data, and participants' rights. The interviews were guided by an interview schedule (Appendix F). The stem questions were "What does your doctor do to be a good doctor?" and "How does your doctor respond to emotions?" Further exploration

of participants' responses utilised specific open-ended questions. The content and sequencing of these questions followed the guidelines of Patton (1990). These questions asked about behaviours and experiences first, grounding subsequent questions with regard to interpretations and feelings in context.

Procedure

The Massey University Human Ethics Committee approved the research prior to commencement (Appendix A). The interviews occurred at a location of the participant's choosing, and only if they felt the level of privacy was adequate. Three interviews took place at the participant's home, four occurred at the participant's place of work, five at a café, and 3 occurred in the university library. Before initiating the interviews, participants read an information sheet. Participants signed a consent form before proceeding (Appendix E).

A semi-structured interview format was utilised to explore participant perspectives on what contributes to positive experiences with their GP, and how their doctor responds to emotion. This format is appropriate for an exploratory study seeking rich novel data. This allowed a more open and flexible approach which facilitates rapport and produces a more conversational style of interview (Smith & Osborn, 2003).

All participants consented to the audio recording and transcription of the interview. The average duration of the interviews was 60 minutes; the shortest interview was 45 minutes.

Interviewing continued until saturation was reached (Morse, 1995) and no new information emerged detailing participants' positive experiences with their GPs or their GP's responses to emotions. The interviews were transcribed, and offered participants a copy of their transcript. No participant wanted a copy of the transcript.

Analysis

The meaning and experience of doctors' behaviour was assumed to be reflected in the language used by participants. This epistemological assumption is consistent with thematic analysis, a flexible method of organising and describing patterns in qualitative data. It follows that subsequent coding of behaviours into thematic categories occurred at the semantic (explicit) level, rather than the latent level (Braun & Clarke, 2006).

The principal researcher performed thematic analysis and coding. This was a recursive process that involved reading and re-reading the transcripts. Early reading increased familiarity with the transcripts and initial thoughts and observations noted in the margins of hard copies of the transcripts. Re-reading involved identifying subthemes in the margins, and then connecting these subthemes into higher order themes. Themes were then reorganised until it was felt they were both internally homogeneous and externally heterogeneous (Patton, 1990), and the themes were described and labelled. Behaviours within each theme and subtheme were also described. To facilitate rapid navigation of the transcripts and selection of examples of behaviour seen in the subthemes and themes, the coding process was repeated using the ATLAS.ti software package (version 6.2) and word processor files of the transcripts.

The trustworthiness of the research data was facilitated by the use of audio-recorded interviews, which allowed the data to be repeatedly revisited, in addition to the use of rich verbatim extracts, which allowed readers to judge if themes fairly represented participant accounts. The neutrality and consistency of the research was facilitated by discussing emerging themes with members of the research group (Noble & Smith, 2015).

Results

Themes

All of the participants discussed their experiences with their current GP, and 12 of the 15 participants focused on the management of chronic health issues. However, participants also compared their GP to other doctors encountered when their current GP was unavailable and to previous GPs.

Three global themes emerged from interviews with participants: *Personalisation of care*, *Investment in care of the patient*, and *Management of Emotion*.

Personalisation. All of the participants made comments such as, “The doctor knows me”, and “I am not just a number”, and this was a highly valued aspect of their relationship with their GP which contributed to their positive experiences. There were five subthemes identified which facilitated this sense of personalisation: *Tone*, *Collaboration*, *Personalised Explanation*, *Contextualisation*, and *Common Ground*.

Tone. All of the participants described their doctor as friendly, as perceived through a combination of verbal, non-verbal, and environmental mechanisms. Participants often described interactions beginning with social banter, the content of which included recollections of the participant’s family life and interests, sometimes the latter overlapping with those of the doctor. In conversation, the doctor had a sense of humour and spoke as an equal. Non-verbal descriptions of doctors included relaxed body language. Participants also made note of the office environment including features such as toys for children and family photographs. One of the participants noted:

“He’s mad on sport so he asks about my husband who’s a good sportsman....”

Collaboration. Many participants felt doctors allowed them to speak without being interrupted, and non-verbal responses such as eye contact indicated attentive listening. Often the doctor took the participant's personal circumstances into account, resulting in the sense of a holistic and realistic approach. Consideration of this broader life context was then utilised to tailor the patient's treatment. Consequently, participants felt they had choice and control in treatment decision-making and perceived doctors as non-authoritarian.

"...he thinks the best idea is to have the operation, but because I've got kids and I'm not mentally in the right space to...do the recovery really, because...so he's prepared just to sort of keep giving me supplements, and medication, and pain killers and stuff"

Personalised Explanation. When explaining treatment, medication, or symptoms, participants noted that doctors spoke on their level, without jargon. One participant also remarked on the allowance of choice in a participatory explanation process.

"Give you probably more information than you need, but...Yeah he lets you pick out what's relevant."

Contextualisation. Participants often noted that their doctor knew their history. This was both a retrospective factual account of medical history and involved personal reflection with regard to the progress of treatment and health. Participants also commented on the established nature of the relationship with the doctor. There were also prospective elements to patient-doctor interaction, with participants remarking that doctors manage their health, and ask where they are heading.

“...and he said to me, ‘We finally got there mate’. And he said, ‘Yeah, sometimes you gotta go up that hill, and, and get there eh. And you did it.’”

Common ground. Fourteen of the 15 participants interviewed were female. Those participants with female doctors felt their doctor had a better understanding of their health issues because of this gender matching. Furthermore, in one case this congruence extended to roles such as being a mother.

“...she can relate to me because she’s had kids and she knows it’s difficult, to be working and having kids, and like she understands that.”

In summary, the behaviours found within the *Personalisation* theme function to extend the medical consultation beyond the instrumental delivery of healthcare and towards engagement in healthcare. Personalised treatment leads to investment by both the doctor and the patient.

Investment. Participants often remarked that their doctor went “above and beyond” in their healthcare. This left participants with the impression that the doctors were interested in and engaged with their healthcare. This included the subthemes of *Following-up* on health issues, *Reassurances of non-abandonment*, and being *Responsive* to need.

Following-up. Participants often raised this characteristic of the relationship in the context of medical uncertainty. Doctors framed treatment as a process of trial-and-error and did not guarantee treatments would work, but they encouraged patients to return if their health did not improve. Furthermore, they would “pursue” other medical professionals, and contact patients at home or work to evaluate health and make changes to medication.

“My doctor rung me at work here one day and said, ‘I don’t think the medication you’re on is right’. Cause it wasn’t quite working, and he said, ‘I want you to come off of that one, and I have got the nurse to fax through to your pharmacy, a script for you to pick up after work.’”

Reassurances of non-abandonment. Participants often reflected on times of considerable treatment uncertainty, during which their doctor had offered reassurance of their ongoing presence and commitment to resolving the health issue.

“He said, ‘The minute you get any pain, I want you to ring the nurse and ask her to give me a message...we’ll change you onto this one and give you a try’.”

Responsive. Some participants remarked that in a time of crisis, their doctor had been very prompt and responsive. This included extending consultation times and increased frequency of appointments to monitor progress of a health issue. One of the consequences of this was a sense of reciprocal investment evident in the tolerance of subsequent wait times, for example.

“...I had had it before but this time was particularly bad...and...I will never complain about waiting in a doctor’s surgery again because he saw me instantly....”

In summary, health issues evoke considerable uncertainty and have an associated emotional and cognitive load. The behaviour within the investment theme functions to confront and modify this uncertainty, but without a personalised relationship, such behaviour would seem authoritarian rather than participatory.

Management of emotion. Each interview queried doctors’ emotional responding. A number of participants responded in the same way to these questions by either saying, “I’ve never had a serious health issue”, or “I’ve never been emotional with him/her, it’s never come up”. There were a few participants however, who could detail serious health events and the way in which the doctor responded to these events. In participant accounts, three sub-themes emerged, *Focused problem-solving*, *Empathy*, and *Response modulation*. (Note: empathy could be response modulation; making it a distinct category implies that it only involves reappraisal.)

Focused problem-solving. Some participants reported that the doctor never explicitly expressed concern yet their serious non-verbal expressions and committed actions in response to health issues, reflected concern. Here we see an interaction with the *Investment* theme, as treatment involved reassurance of non-abandonment. Interestingly, there is also the contra-hedonic expression of humour, rather than fear in anxiety provoking situations.

“...I got this awful chest infection in which I’d had two lots of antibiotics and nothing happened...ended up that I had to be nebulised. And he was all serious. There was no joking or laughing or anything in that visit.”

Empathy. Empathy was a prominent theme in participants’ stories of positive experiences with their doctor. Empathic reflection, normalisation, and perspective-taking allowed reappraisal of the emotion and the situation. Participants reported the consideration of their broader psychosocial context by their doctor, and their role in that context. Thus, we see an interaction with the theme of *Personalisation*.

“She just looked at me and she’s like, ‘I know it’s hard...You’re doing the best that you can, and the fact that you’re concerned about him...You’re a good mother’.”

Response modulation. Some participants described situations in which they had explicitly expressed emotion in front of their doctor and the doctor responded by physically comforting them. Other participants described situations in which the doctor had waited quietly while they cried.

“...and so there have been times when I’ve been quite upset and he’s gives me, gives me a hug and says, ‘It’s great to see ya’.”

In summary, this theme consists of a range of behaviours functioning to regulate emotion. Again, interactions with other themes are evident. Without a personalised relationship, it would be difficult to utilise perspective taking and reframe a patient’s concerns, as knowledge of context and interests indicates where values and emotion lie.

Thematic map. The bidirectional interactions between the themes described are summarised in the thematic map below (Figure 1). *Personalisation* engages the patient in healthcare and encourages *Investment* by the doctor in medical tasks tailored to the patient, which in turn strengthens the personal relationship. The doctor can then act semi-autonomously on the patient’s behalf without seeming authoritarian. However, healthcare involves uncertainty, and necessitates the *Management of Emotion*. Some of this uncertainty is reduced through focused problem-solving enabled by *Investment*. Other strategies for reducing anxiety and uncertainty, such as empathy and response modulation, require perspective taking. *Personalisation* elicits the patient perspective and the use of this perspective in the *Management of emotion* personalises the healthcare relationship. Together, the themes result in an understanding relationship.

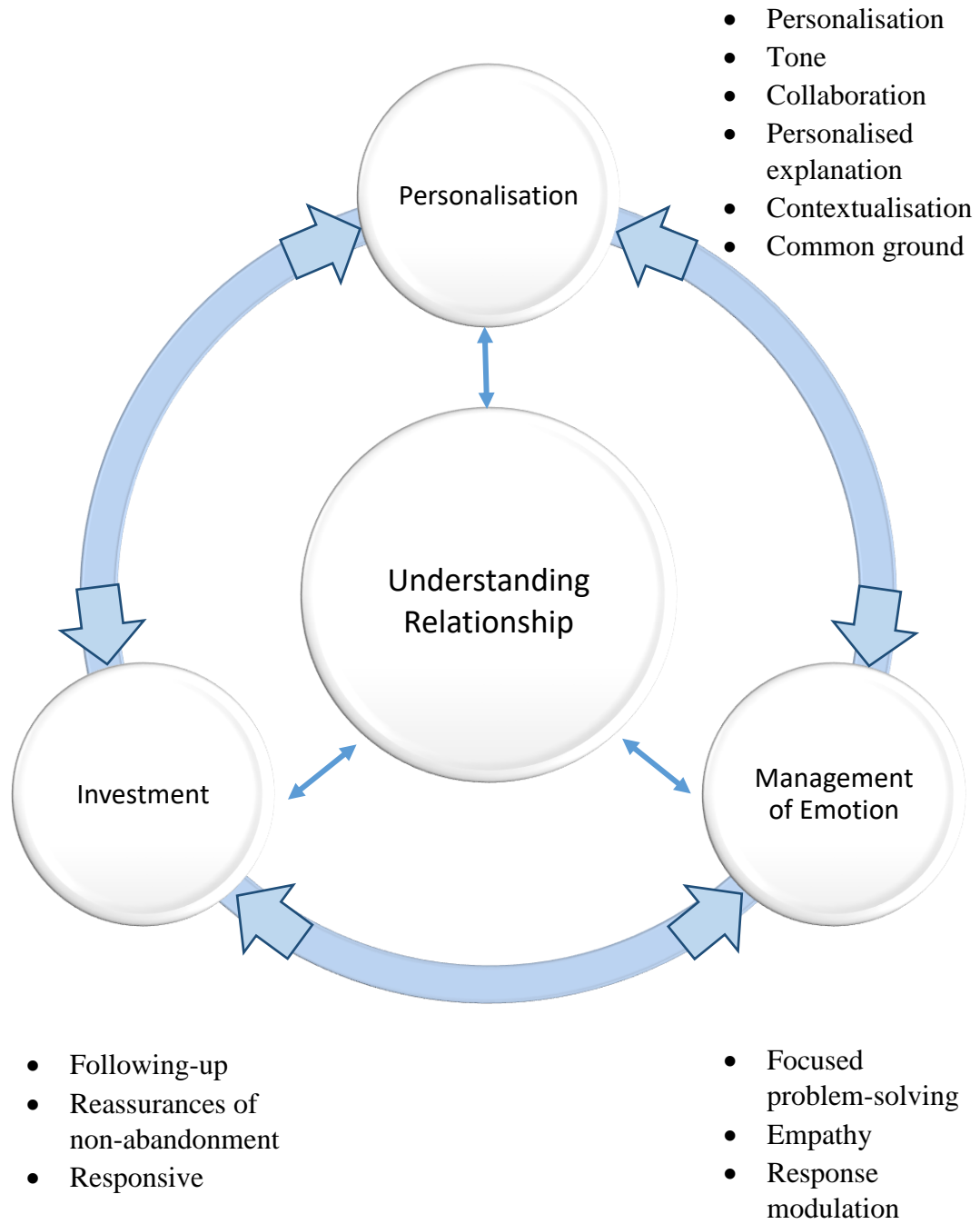


Figure 1. Thematic map of the patient perspective of general practitioners' social-emotional communication

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Discussion and Conclusion

Discussion

This study aimed to explore the GP behaviours patients associated with positive communicative experiences generally and, more specifically, those behaviours evoked by emotion during consultations. As hypothesised, the results demonstrated positive experiences were associated with highly collaborative relationships, participants feeling known by their doctors, and the accommodation of participants' perspectives. Of note was a range of responses to emotion, including increased focus on resolving health issues, empathy, and allowing time and space for emotion expression.

We found participants often gave primacy to the tone of their relationship with their doctor. Participants consistently described doctors as friendly, and participants felt known with regard to both their medical history and their wider life. These observations, the friendly tone of the relationship and feeling known, are comparable to the concepts of respect and remembering respectively. Previous research asserts respect and remembering to be important components of continuity when fostering doctor-patient relationships (Frederiksen et al., 2009).

Although fostering relationships is frequently identified amongst patient expectations, some researchers have questioned the importance of social behaviour to quality of care (Bensing & Dronkers, 1992). However, this may be a consequence of quantitative evaluation of medical interactions. More recently, research has shown that knowing the patient facilitates instrumental behaviour by increasing engagement in decision-making (Thorne et al., 2013). Furthermore, patients' desire tailored or individualised treatment and the participants in this study repeatedly contrasted their positive experience with the depersonalisation of being treated 'as a number'. Knowing

the patient also facilitates affective behaviour as familiarity enhances empathy (Batson et al., 1996). Our observations are consistent with a growing literature supporting doctors' attunement to the emotions and motivations of patients to guide collaboration (Epstein & Street Jr, 2011; Mazzi et al., 2015).

In this study, participants did not spontaneously speak of medical-technical competence. Rather, they spoke of important qualities of medical-technical behaviour including decision-making. These included tailoring, ongoing engagement through the reassurance of non-abandonment, and being both attentive and immediately responsive. Patients experience such behaviour as caring (Quirk et al., 2008). Although framed as a process of trial-and-error, reassurance of ongoing engagement and non-abandonment counterbalances the inherent uncertainty in this approach to treatment. Such reassurance is a known characteristic of empathic statements which are highly rated by patients (Mazzi et al., 2013). In summary, medical-technical behaviour was highly collaborative and buttressed by social-emotional behaviour.

Finally, participants' recollections of their doctor's response to emotionally arousing events supports the previous findings of both qualitative and quantitative research. Participants gave examples of supportive but indirect responses to emotion such as normalising, reflecting, reframing, and giving perspective. There were also direct responses to expressed emotion such as physically comforting the participant. A third class of response was also noted. Some participants believed their doctor responded to their emotion with focused problem solving. Such an approach would be consistent with Lazarus' problem-focused coping (Lazarus, 1966). An alternative or concurrent function of focused problem-solving is compensation for cognitive and skills deficits, as seen in collaboration research (Meegan & Berg, 2002).

Given this range of potential responses to emotions, which includes both indirect responses and more technical problem solving, an incomplete interaction analysis system could erroneously conclude that a doctor has missed cues of emotional distress, when in fact he/she has responded in a way tailored to the patient and context. The emergence of the three subthemes of emotion responses is consistent with the emotion regulation framework of Gross (1998a, 1998b) which involves focused problem solving to direct attention away from emotion, empathy to engage cognition in a reappraisal process, while physical responses or lack thereof attempt to moderate the behavioural expression and experience of emotion.

Limitations. Two biases within the sample potentially place significant limitations upon the generalisability of the data. Namely, gender bias, and only seeking descriptions of positive consultation behaviour.

The differences between males and females are due to perpetuation of gender stereotypes in society (Ellemers, 2018). The consequence of these stereotypes is both men and women evaluating women by relational criteria such as warmth and care, while men are evaluated on criteria of task performance such as assertiveness and agency (Fredrickson & Roberts, 1997; Kite & Deaux, 2008). Despite an awareness of these differences, it is difficult to anticipate how the gender bias of the sample impacts the data. Research shows male patients are more satisfied when male doctors ask fewer questions, and when female doctors ask fewer psychosocial questions (Noro, Roter, Kurosawa, Miura, & Ishizaki, 2017). This suggests males prefer a biomedical focus in consultations, and instrumental behaviours may be under-represented while psychosocial and emotional behaviour may be over-represented in our item set. Further research will be necessary to evaluate the generalisability of the results.

There was some evidence for a gender difference in the interview of the male participant. That is, a greater emphasis on his GP's biomedical task behaviour. However, at the same time, this participant also reflected on another GP whom he felt was more holistic, and this was appreciated. Regardless of the impact of gender bias in the sample, this confound could have been controlled by selecting equal numbers of both male and female participants, and patient-doctor gender combinations. Attempts were made to increase male representation in the sample. Volunteers were requested from a men's health group, and the male participant was encouraged to recruit male associates. While this increased male representation in subsequent studies, it did not result in additional male volunteers in the current study.

By only seeking descriptions of positive consultation experiences, there is a risk that the sample is biased towards a type of participant with particular personality traits, for example agreeableness. As a consequence common behavioural themes may emerge as a reflection of the personality traits the participants have in common, rather than behaviours which are universally recognised as good. Furthermore, there is an erroneous assumption participants who have negative experiences cannot identify tasks their bad doctor does well, or behaviours that they desire from this doctor.

The motive for this study and the decision to collect details of positive experiences, was to capture the behaviours evident, when doctors are functioning well from the patient perspective. There also were ethical, pragmatic, and methodological considerations for only seeking descriptions of positive behavioural experiences. Ethically, there were concerns about the potential reputational damage to doctors of negative accounts of behaviour. Pragmatically, it was felt GPs would be more open to the research, and advertising in their practice, if the research was framed around positive experiences. Methodologically, the presence of positive and negatively valenced

behaviour items in the subsequent multi-dimensional mapping would lead to bipolar grouping of behaviours. Unfortunately, only collecting data from positive experiences may have prevented the identification of some behaviours.

In addition to gender and positivity biases, participants in the current study came from a single geographic location. Furthermore, the ethnic and cultural composition of the sample is not representative of the population. That is, there was only one Māori participant, and two participants grew up outside New Zealand. Research has shown that preferences with regard to health communication differ culturally and in the context of different health systems (Goldstein, Thewes, & Butow, 2002; Huang, Butow, Meiser, & Goldstein, 1999; Mitchison et al., 2012; Walczak et al., 2013). For example, if Māori patients hold a Māori worldview, more holistic consultations that include whanau may be preferred. Such a consultation could be expected to explore tinana, wairua, hinengaro, and whanau support (Pitama et al., 2007). Other research indicates Chinese and Greek families will attempt to censor the medical information a family member receives, and make decisions on their behalf (Goldstein et al., 2002; Huang et al., 1999). These limitations may limit the generalisability of the findings and further research is required to test this.

Conclusion and Future Directions.

In conclusion, this study contributes to addressing the knowledge gap pertaining the GP behaviour valued from the patient perspective, and the findings are consistent with previous qualitative and quantitative research from the doctors' perspective. There is evidence to support the importance of both instrumental and social-emotional behaviour, and an emotion-regulation framework. Moreover, there is support for the concept of a 'shared mind' involving collaboration, attunement, and sense-making. The GP knowing the patient facilitated collaborative problem solving which incorporated attunement to the

patient's emotional needs and aided understanding of health issues. The communicative modes of such understanding included language, emotion, and action. The behavioural themes in this study are consistent with interactionist care, as opposed to transactional care (Epstein & Street Jr, 2011).

The current study did not consider individual variance in patient communication preferences and the utility of matching these preferences. Consequently, subsequent research will integrate these qualitative findings in a quantitative approach. Behaviours identified in this study will be utilised to map doctors' behaviour from the patient perspective, and profiles of patient preferences in doctors' communication behaviour developed from this map.

Chapter Three: Mapping Health Communication from the Patient Perspective

Reflections on Study 1

The most striking feature of the conversations with participants was the primacy given to the relational aspects of consultation anecdotes. This is consistent with the research premise that participants felt they had a ‘good’ doctor, as research has shown relational communication to be associated with a number of positive health outcomes. These include increased hope (Clayton, Butow, Arnold, & Tattersall, 2005), adherence to treatment (Roberts et al., 2005; Schneider, Kaplan, Greenfield, Li, & Wilson, 2004), and decreased depression and anxiety (Fogarty et al., 1999; Neumann et al., 2007; Schofield et al., 2003).

Relational primacy could be argued to be a reflection of a framing artefact: the tendency of patients to describe aspects of relationship when asked about their physician (Baron-Epel et al., 2001). However, relationship is evident in all aspects of their stories. When asked to elaborate upon the consultation process, participants did not give descriptions of purely task-oriented behaviour. Rather, participants described the performance of task-oriented behaviours with respect for their preferences, context, and history as individuals, as well as their feelings. Thus, the patient-doctor relationship, a collaborative relationship consistent with the concept of ‘shared mind’, informed healthcare.

Study 1 suggests such collaborative patient-doctor relationships are a common underlying factor in positive patient-doctor consultation experiences. Thus, to quantify the quality of communication within such experiences we could measure a general

relationship factor as a proxy. However, such an approach does not contribute to our understanding of the mechanism by which communication affects relationship and health. Furthermore, measuring a general relationship factor does not resolve observable, teachable behaviours contributing to collaborative relationships. Without resolving these communication behaviours and organising them within a framework of shared patient interpretation it is not possible to describe differences between patient preferences and inform tailored healthcare.

The relationship style described by shared mind involves cognitive, affective, and social behaviours. These behaviour types have the potential to act as underlying characteristics in an organisational framework of communication behaviour. In addition, the theory of shared mind and results of Study 1 highlight that cognitive, affective, and social behaviours are not discrete categories of behaviour function. A given behaviour performs multiple functions, as reflected in the varied interpretations of the same behaviour. For example, listening to a patient's concerns has affective and relational (social) qualities, while also invoking cognition in addressing those concerns in a task-oriented manner. It follows from these overlapping functions of communication behaviour, that cognitive, affective, and social qualities as organising characteristics are best perceived as dimensions rather than categories of behaviour. Thus, a behaviour can simultaneously have a value on three dimensions. This leads us to propose that communication behaviours are best described by the term social-emotional practices.

Study 2 seeks to establish a common conceptual space or organisational framework of the social-emotional practices of GPs, as a lens through which to compare patient preferences.

Communication Theories

Study 1 provided descriptions of behaviours that can be utilised to map the conceptual space of doctor-patient communication. These communication behaviours formed sub-themes and themes. Although thematic analysis is not intended to characterise the underlying structure of data, the themes of personalisation, investment, and management of emotion are suggestive of social, task/cognitive, and affective dimensions respectively. Evidence for such a dimensional organisation of physician communication behaviour is sought in a brief review of theories of communication and human interaction, before Study 2 explores the multi-dimensional organisation of behaviour elucidated in Study 1.

Communication Accommodation Theory. Communication Accommodation Theory (CAT) proposes individuals from different in-groups, individuals with different social identities and roles, enhance similarities in interpersonal relationships by decreasing communicative differences, to accommodate one another (Giles, 2008). If these attempts to accommodate another are perceived positively they can encourage interactional satisfaction, partnerships, understanding, and attributions such as empathy and trust. Conversely, non-accommodation and dissimilarity in communication behaviours can be interpreted negatively as disrespect for an individual's actions or identity (Giles, 2008). However, the degree to which accommodation occurs depends upon several factors including interacting individuals' initial intergroup orientation and the goals of the individuals. These goals can include attending to emotional and relationship needs, communicative competence of the other person, and the respective roles of interacting individuals'. Thus, when an individual is communicating in the role of physician, he/she must be non-accommodative to perform role-specific technical behaviour, but avoid negative sentiment by accommodating the patient. This

accommodation behaviour includes matching lay language to compensate for interpretive competence for example.

In summary, CAT does not explicitly organise communication behaviour with a dimensional structure. However, degree of accommodation could be considered a dimension, and accommodation employs three sociolinguistic strategies: interpersonal control, emotional expression, and discourse management.

Empirical Support for CAT in the Medical Context. There is both general support for CAT in the medical research literature, and specific evidence for sociolinguistic strategies potentially reflecting underlying dimensions of behaviour.

Although not examining CAT explicitly, there are a number of studies of patient-physician communication consistent with CAT due to the communicative asymmetry they report. For example, one study of decision-making found 80% of physicians reporting patient participation, while only 30% of their patients felt they had participated (Guadagnoli & Ward, 1998). Research suggests non-accommodative behaviour as an explanation for this asymmetry in clinical interactions. In another example, one study found 5% of patient utterances were questions compared with 17% of physician utterances, the majority of which were closed questions. Furthermore, there was a qualitative asymmetry in the interaction. Agreements, which represent attentive responses, were only 9% of physician utterances relative to patients' 27% (Ford, Fallowfield, & Lewis, 1996). In other words, physicians did not accommodate patients by attending to relational and communicative needs. Such asymmetries contribute to differences in the relative perception of participation of patients and doctors.

In a study of communication specifically framed from the CAT perspective (Watson & Gallois, 1998), the observations were consistent with this theory. Participants watched recorded interactions previously categorised by ratings on eighteen

items such as ‘friendly’, ‘respectful’, and ‘dominating’, as either interpersonal or intergroup in nature. They then rated physicians with regard to their goals and the sociolinguistic strategies employed. Findings demonstrated interactions of a more interpersonal nature involved more attention to the goals of attending to the doctor-patient relationship and emotional needs of the patient. This involved the sociolinguistic strategies of emotional expression, and treating the patient as an individual and equal (Watson & Gallois, 1998).

In summary, CAT research identifies sociolinguistic strategies, or clusters of behaviour which could describe social and affective dimensions of communication. Furthermore, when asserting his/her role, the observed behaviours arguably fall on a task-oriented dimension.

Interpersonal Theory. Interpersonal behaviour is defined as recurrent patterns of actions and reactions, or transactions, which can be observed within a relationship between at least two people. Kiesler (1982, 1996) outlines the basic assumptions of human social behaviour upon which the theory of interpersonal behaviour is predicated.

Firstly, human social behaviour is interactionist, mutual and transactional. Respectively, this means behaviour is a consequence of both predispositions and events, interactions involve at least two people, and causality is circular. The medium for such interactions is verbal and non-verbal communication.

Secondly, at the core of our communication behaviour in the context of relationships is the preservation of our self-construct, and two dimensions drive social behaviour: affiliation and control. The poles of the affiliation dimension are friendliness and hostility, while the control dimension ranges between submission and dominance. Interpersonal behaviours represent blends of these two dimensions that serve to elicit responses that reinforce and validate the actor’s self-construct. For example, a person may

be described as courteous, pleasant, and supportive (friendly affiliation style), but independent, forward and proud (dominant control style). In interpersonal interactions, this is likely to elicit a similarly friendly affiliation style, but a control style described as humble, inconspicuous, and apologetic (submissive). That is, behaviour is said to display complementarity when interacting individuals have similar affiliation but opposite control tendencies (Kiesler, 1982, 1996).

Empirical Evidence for the Interpersonal Theory. Research has shown positive outcomes for complementarity of affiliation in interpersonal interactions. However, with regard to the control dimension interpersonal outcomes have been mixed (Kiesler, 1996).

This could invalidate the theory, but there is evidence for a number of moderators. Moskowitz (1994) has proposed moderators such as phase of relationship, and dominance hierarchies within social organisations, explain the limited generalisability of dominance. For example, within a hierarchical supervisor-supervisee relationship, individuals will limit the extent to which they assert control preferences if this challenges the existing hierarchy. Whereas, dominance preferences can be seen to be generalised across familiar relationships of similar status, such as friendships.

Inconsistencies in outcome data in the medical context suggest other moderators of the impact of affiliation and control upon outcome variables.

Empirical Support for the Interpersonal Theory in the Medical Context

Greater patient satisfaction, trust, treatment adherence, metabolic control, involvement, perceived competence of the physician, and participation in decision-making are associated with highly affiliative physician behaviour. However, the affiliation dimension is thought to be a structural variant of the personality trait of agreeableness (McCrae & Costa Jr, 1989). This is evident in research as the degree of benefit patients derive from

affiliative behaviour is moderated by their level of agreeableness (Cousin & Mast, 2013, 2016; Cousin, Mast, & Jaunin-Stalder, 2013). For example, while there are demonstrably lower levels of anger expressed by patients in response to bad news from physicians displaying highly affiliative behaviour, anger reduction is greater if patients are highly agreeable (Cousin & Mast, 2016). Overall, Kiesler and Auerbach (2006) argue all patients benefit from higher levels of affiliative behaviour, but control behaviour should be tailored to the individual patient.

Other moderators of interpersonal behaviour include the doctor's gender, patient age, and illness severity. Female doctors tend to be more affiliative, older patients prefer doctors who exert more control, and less severe illness is associated with a desire for more affiliation and less control (Kiesler & Auerbach, 2003).

Although these moderators make it more challenging to apply interpersonal theory to the optimisation of patient-physician communication, they do not invalidate the model. Rather, they are consistent with the variance implied by the assumptions of mutual, interactionist, and circular behaviour (Kiesler, 1982). Furthermore, interpersonal theory argues that inflexible deployment of control and affiliative behaviour is maladaptive and potentially pathological (Kiesler, 1996).

In summary, interpersonal research in the medical context supports the proposed affiliation dimension. While the control dimension is not as strongly supported this could reflect the non-accommodative intergroup behaviour previously discussed.

Social Theories. Attempts have been made to explain the relationship between physician communication behaviour and health outcomes by applying social interaction theory, and social reciprocity theory. Both theories suggest interactions involve both affective and task-oriented behaviours, but they differ in the significance they attribute to physician affective behaviour.

Social interaction theory holds that patients respond primarily to affective behaviour (Ben-Sira, 1980). Underlying this proposition are three assumptions. Firstly, patients are not capable of understanding the relationship between instrumental treatment behaviour and their health. Secondly, the anxiety of illness may make it difficult to interpret instrumental behaviour. Finally, the social meaning of affective behaviour is ubiquitous and therefore universally interpretable. Whereas, social reciprocity theory contends affective and instrumental behaviour are not discrete categories of behaviour, as instrumental behaviour has affective qualities, and thus patients respond to both affective and instrumental behaviour. Furthermore, patients feel obligated to reciprocate physician behaviour. For example, treatment recommendations are reciprocated with patient compliance, empathy by information provision (Gouldner, 1960; Hall, Roter, & Katz, 1988; Roter & Hall, 1991).

Empirical Evidence for Social Theories. Studies show the ideal physician is described as sympathetic and friendly, and this is reflected in a greater likelihood of changing physicians when their affective behaviour is unsatisfactory (Gandhi, Parle, Greenfield, & Gould, 1997). Roberts and Arguete (2000) found that while patients can recognise instrumental physician behaviour, this behaviour did not influence patient outcomes, including satisfaction, self-disclosure, and trust. These observations imply the greater relative significance of affect. However, contrary results were found in two other studies with similar methodology; patient satisfaction and self-disclosure were associated with both instrumental and affective behaviour (Willson & McNamara, 1982; Young, 1980). Thus, there is support for both social reciprocity and social interaction theory.

In summary, underlying mechanisms explaining communication behaviour differ between the communication theories outlined. However, the theories have similarities in an underlying dimensional structure comprised of at least two dimensions. The common dimensions are affect, task-oriented or instrumental, or social, in keeping with the themes of Study 1.

In addition to suggesting mechanisms driving behaviour, and their power for predicting and explaining outcomes, theoretical frameworks influence how we organise, operationalise and measure behaviour with interaction analysis systems.

Functional Models of Medical Communication Behaviour

One way of organising communication behaviour further, is by functional subcategory. Such functional subcategories have been utilised to organise behaviour into at least five models, which have functional categories in common. The common functions include fostering relationships, responding to emotions, educating patients,

and information exchange. Some models also include a decision-making functional category (Table 3).

Table 3.

Three Examples of Functional Models of Medical Communication

Three function model (Bird & Cohen-Cole, 1990)	Three function model (Lazare, Putnam, & Lipkin, 1995)	Six function model (de Haes & Bensing, 2009)
Data gathering	Determine and monitor the nature of the problem	Gathering information Providing information
	Develop, maintain, and conclude the relationship	Fostering the relationship Decision-making
Educating	Educating and implementation of treatment plans	Enabling disease and treatment related behaviour
Responding to emotions		Responding to emotions

The functions and the constituent behaviours are not independent. All functions of communication are influenced by the quality of the doctor-patient relationship, and information exchange is a pre-requisite to decision-making and education about

treatment regimens and lifestyle change (de Haes & Bensing, 2009). These functions of communication behaviour are reflected in meta-analyses of medical communication research, and interaction analysis systems (Hall et al., 1988; Roter & Larson, 2002).

Roter Interaction Analysis System. According to Boon and Stewart (1998), in the context of medical communication, 44 interaction analysis systems (IAS) have been developed. The Roter Interaction Analysis System (RIAS) is the most widely utilised IAS; by 2002, it had been used in 75 communication studies across a range of medical contexts that included surgery, oncology, palliative care, paediatric care, and emergency medicine. The RIAS has been shown to have an inter-rater reliability correlation of approximately 0.85 (Roter & Larson, 2002). It has also predicted physician and patient satisfaction, patient recall, and a reduction in patient distress (Bertakis, Roter, & Putnam, 1991; Rost & Roter, 1987; Rost, Roter, Bertakis, & Quill, 1990; Roter et al., 1987).

The RIAS is based upon the aforementioned social theories of interpersonal interaction (Ben-Sira, 1980; Emerson, 1976; Parsons, 1991; Roter & Hall, 1989), and consequently the system broadly subdivides behaviour along task-oriented and affective dimensions. Affective behaviours are defined broadly, as behaviours utilised to build social and emotional rapport. This includes empathy, concern, reassurance and social amenities. In contrast, task-oriented behaviours are related to the medical role and include medical procedures and physical exams, data gathering, and patient education and counselling (Roter & Larson, 2002).

The RIAS organises behaviour further by utilising categories of behaviour based on the three function model of medical interviewing described in Table 3 above (Bird & Cohen-Cole, 1990; Lazare et al., 1995). These functional categories are, data gathering, develop and maintain the relationship, and education. Activating and partnership

building, sometimes considered part of education and enablement, was added as a fourth functional category. When coding communication behaviour, these functional categories are further subdivided to place verbal utterances into behaviour subcategories based upon their content and form. Form makes the following distinctions between utterances as primarily: informative, persuasive, interrogative, affective, or process oriented. Whereas the content of utterances is coded as primarily: medical condition, therapy, lifestyle, or psychosocial (Roter & Larson, 2002). These are summarised in Table 4.

Table 4.

Functional Categorisation of the RIAS (Roter & Larson, 2001)

Functional Grouping	Communication Behaviour
Data gathering	Open-ended questions: medical (medical condition, therapeutic regimen)
	Open-ended questions: psychological (lifestyle, social psychological)
	Closed-ended questions: medical (medical condition, therapeutic regimen) Closed-ended questions: psychological (lifestyle, social psychological)
Develop and maintain the relationship	Social talk (nonmedical chitchat)
	Positive talk (agreements, jokes, approval, laughter)
	Negative talk (disagreements, criticisms)

	Emotional talk (concerns, reassurance, empathy, partnership)
Education	Biomedical information-giving (medical condition, therapeutic regimen)
	Psychosocial information-giving (lifestyle, self-care information)
	Biomedical counselling (persuasive statements regarding medical management and therapeutic regimen)
	Psychosocial counselling (persuasive statements regarding lifestyle changes and social psychological issues)
Activating and partnering	Participatory facilitators (asking for patient opinion, asking for understanding, paraphrases, back channels)
	Procedural talk (orientations, transitions)

When coding communication behaviour, the RIAS is applied to the smallest verbal expression possible, argued to represent a complete thought. This choice of the unit of interaction analysis has led to several proposed limitations from a linguistic perspective, and the reader is referred to the work of Sandvik et al (2002) for a full discussion of these limitations. The proposed limitations most pertinent to the current research are the coding of back channels, and open- and closed-questions. Sandvik et al (2002) argue that a verbal utterance cannot be coded as open or closed without consideration of the listener's response. Similarly, back channel expressions from doctors and patients have different meanings, generally assumed to be attentive

listening and agreement respectively (Roter & Larson, 2002; Sandvik et al., 2002).

However, how do we know this without querying the listener's interpretation? In summary, by coding a physician's behaviour based solely upon their verbal utterance the patient perspective is lost.

In summary, the common categories of functional models of medical communication are data gathering, responding to emotions, and fostering the relationship. These categories align with the instrumental, affective, and social dimensions of the conceptual models of communication previously discussed. In addition, the functional models often include an education category of behaviour. This can be regarded as instrumental in nature, but also social due to the partnership building involved in enabling treatment plans.

Study 1 sought to address a knowledge gap by seeking the patient perspective to identify the GP behaviours they valued as part of positive experiences. As these were reflections of physicians' behaviour, the behaviours documented contained the participants' subjective interpretation of consultation behaviour. Study 2 also seeks to address a knowledge gap by exploring patient perspective of GPs behaviour, but in this study, participants organised behaviours identified in Study 1. This allowed comparison of the way patients conceptualise GP behaviour relative to the models from the doctors' perspective, which predominate in the research literature.

Study 2 utilised a card sort methodology, to generate a multidimensional map. The methodology requires participants to group behaviours by similarity rather than preference, and the approach is a-theoretical, as participants do not rate behaviours on predetermined dimensions. While this leaves considerable challenges for interpretation, the process allows behaviour to be organised in a valid manner with respect to patient perspective.

Study 2. Mapping the Social-Emotional Practices of General Practitioners: A Patients' Perspective

Communication is believed to have an impact on health outcomes such as blood pressure and anxiety (Fogarty et al., 1999; Orth et al., 1987). This impact is thought to occur either directly, or indirectly via process variables such as satisfaction, recall, and treatment compliance (Street et al., 2009). Yet, the data are inconsistent, with only 44% of randomised controlled studies demonstrating this impact (Griffin et al., 2004).

One reason for inconsistent research outcomes is inconsistent operationalisation of communication behaviours. Mapping communication behaviour would elucidate relationships between families of communication functions and the constituent behaviours. Such a map could form the basis of hypothesis and subsequent research and modelling.

Arguably, if a conceptual model of medical communication is based upon social theories of interpersonal behaviour (Ben-Sira, 1976, 1980; Emerson, 1976; Parsons, 1991; Roter & Hall, 1989), the most parsimonious model would have two dimensions of behaviour: Affective and Instrumental. Within these broad dimensions, at least five published models of medical communication further differentiate behaviours by function. The common functions of communication in these models are fostering relationships, information exchange, educating patients to enable treatment and lifestyle change, and responding to emotions (Bird & Cohen-Cole, 1990; de Haes & Teunissen, 2005; Lazare et al., 1995; Smets, van Zwieten, & Michie, 2007). de Haes and Bensing (2009) further differentiate information gathering and provision, and include decision-making, and thereby propose a six function model.

To measure the constituent behaviours of the functions of medical communication, interaction analysis systems (IAS) were developed. The most widely utilised Roter IAS (RIAS) (Roter & Larson, 2002), predicts patient outcome variables including satisfaction, treatment recall and adherence (Bertakis et al., 1991; Hall, Irish, Roter, Ehrlich, & Miller, 1994; Rost & Roter, 1987; Rost et al., 1990; Roter et al., 1987). However, IAS are criticised for a failure to capture patient perspective. For example, the RIAS categorises doctors' questions as either open or closed, while some researchers argue this should be determined by the listener's (patient's) response to the question (Sandvik et al., 2002). Other researchers have noted qualitative differentiation of the same question by different patients. For example, 'Is there someone you can call or talk with?' is perceived by some patients as caring and by others as uncaring (Quirk et al., 2008).

Such patient perspective has rarely been sought in the research literature (Deledda et al., 2013). Yet this perspective is necessary with significant asymmetries between doctor behaviour and patient preferences. In the oncology context, one study demonstrated 40% of doctors did not talk about the risk of breast cancer recurrence, while only one woman from a sample of 141 did not want this information (Kelly et al., 2013). Another study found that patients felt pre-surgical information about the risks and impact of anaesthesia were lacking (Puro, Pakarinen, Korttila, & Tallgren, 2013). Moreover, patients expect communication to be tailored to their situation, and this is required for full engagement in shared decision-making (Thorne et al., 2013).

Such a tailored approach to healthcare necessitates a highly collaborative patient-doctor relationship. Not only does collaboration allow the doctor to evaluate the patient perspective, but also helps to compensate for the affective and cognitive load associated with complex biomedical information and potentially uncertain and significant health consequences (Epstein & Peters, 2009; Epstein & Street Jr, 2011; Meegan & Berg, 2002).

A relationship characterised by such collaborative problem-solving, attunement to patient emotions, and social support, has been termed ‘Shared mind’ (Epstein & Street Jr, 2011). This type of patient-doctor relationship is supported by our previous thematic analysis of participant-general practitioner experiences, which highlighted considerable overlap between social, emotional, and instrumental practices (Chapter 2). For these reasons, we describe the behaviours within this study as social-emotional practices.

To our knowledge, a map of doctors’ social-emotional practices from the patient perspective has never been generated. The aims of this study are two-fold. Firstly, to generate a map of doctors’ social-emotional practices based upon practices identified by participants when talking about their positive experiences with their doctors, a patient-derived map. Secondly, to compare the map with the dimensional and functional models proposed by health communication experts, and identify similarities and discrepancies between the perspective of experts and patients.

Method

Participants

Participants (26 females, five males, $M_{age} = 36.29$ years, $SD_{age} = 13.64$, age range: 21-72 years) were recruited with advertising fliers either in GP practices in Palmerston North, New Zealand, or a psychology graduate student mailing list at Massey University (Appendices B, C, G). A sample of this size has been shown to produce stable dendrograms and spatial maps with adequate face validity (Bimler & Kirkland, 1998). Twenty four participants stated their ethnicity as New Zealand-European, one as Māori, and five as ‘Other’. Thirteen of the participants were students, three were psychologists, three were retired, five were involved in business administration, three were research technicians, three were housewives, one was involved in hospitality, one was a lawyer.

To be included in the study participants had to be at least 18 years of age. Medical doctors, terminally ill patients, the principal author of the research, and research supervisors were excluded from the study.

Materials

Before the generation of the patient-derived map, a pool of social-emotional behaviour items was developed. These items emerged from interviews with 15 participants which were used for a thematic analysis (Chapter 2). In these interviews, participants discussed the behaviours which contributed to their positive experiences with their General Practitioner generally, and more specifically how he/she responded to emotion. The initial pool consisted of 797 items. Coxon's (1999) observations were used as a guideline to final set size. That is, sets between 40 and 100 items were common in GOPA card sorting exercises (Coxon, 1999). A panel of five experts in the field of social-emotional communication practices, working in the health psychology context, reviewed the items. Two of these experts had dual roles as both registered clinical psychologists and researchers, the other three experts were graduate students conducting research in other contexts of social-emotional communication. Items were typically short statements such as 'Asks how I feel' and 'Explains symptoms'. The item set was reduced by applying three rules. Firstly, items that were deemed to be duplicates or redundant were removed. For example, within the information exchange theme 'Asks if I have further questions' and 'The doctor makes time for questions', were considered very similar and the latter item removed after discussion by the experts. Central themes and redundant items within these themes were identified by nearly-synonymous items. This first rule reduced the item set to 249 items. Secondly, items were to be observable rather than conceptual. For example, the item 'Encourages positive coping' was removed from the item set as it is not observable. The third part of item reduction considered whether the items were at the

right level of specificity. That is, items described social-emotional practices that were specific enough to be observable but were not specific to a particular health condition or treatment. For example, 'Discusses lifestyle change' was considered too specific. At the end of this item review process a set of 90 items remained. This set was printed on coloured cards 20 x 70 mm in size, with a unique numerical identifier. Participants were provided a response form for recording their GOPA sort results (Appendix J).

Procedure

Prior to commencing recruitment the Massey University Ethics Committee approved a Low Risk Notification. Participant estimates of the semantic similarity between items were gathered by utilising a four phase card sort procedure termed GOPA. The setting of the card sort was not standardised, participants performed the sort at location and time of their convenience. In the first phase of the sort, Grouping (G), participants created groups of items which they perceived as similar. In the second phase the participants designated which of the phase one groups they considered to be opposites (O). This was followed by the partition (P) phase in which participants created subsets from their existing groups, that is, they created groups that were even more internally similar or homogeneous. In the final, addition (A) phase, the participants considered whether any of their groups could have been merged thereby applying less stringent similarity rules. Participants recorded their sort results on the provided form (Appendices H-J).

Analysis

Prior to commencing Multidimensional Scaling (MDS) the sorting data were pooled and converted to inter-item similarity values for every pairwise combination of items. These values indicated the fraction of participants' groups in which a given pair of items were grouped together. Two items which were always grouped together had a value

of one, while items that never grouped together had a similarity value of zero. MDS was utilised in this study to generate maps of the communication behaviours used by doctors when consulting with participants. MDS is a multivariate technique that transforms item similarities as estimated by participants when they utilised the GOPA sorting procedure, into distances in multidimensional space. As no comparison variate was provided to participants, the method allowed the objective comparison of items, and identified attributes corresponding to underlying dimensions. The combination of card (item) sorting to produce similarity data and MDS methodologies has been refined in New Zealand by Kirkland, Bimler and colleagues. Thirty card sorts was sufficient to produce stable maps (Bimler & Kirkland, 1998, 2007; Kirkland, Bimler, Drawneek, McKim, & Scholmerich, 2004).

Additionally, Hierarchical Cluster Analysis (HCA) was utilised to identify the underlying structure of the data. HCA is a multivariate technique that proceeds in a stepwise manner, with each step grouping the most similar clusters of items. The final solution maximises both within cluster homogeneity (similarity) and between cluster heterogeneity (Hair, Black, Babin, Anderson, & Tatham, 2006). A hierarchical tree, or dendrogram, displays the final clusters. As a given item in one leaf node cannot be described as more distant to an item in a neighbouring leaf node, all items in a leaf node are equally distant from neighbouring nodes. Consequently, the spatial display of MDS data was necessary to better represent continua.

The MDS produced a multidimensional map by converting a matrix of the pairwise similarity values into Euclidean distances (Hair et al., 2006). Each item was represented as a point in space. It follows that the greater the pairwise similarity value of two items, the smaller the distance between them. By extension, clusters of items represented a common underlying theme. The goodness-of-fit between the inter-item

similarity matrix and the inter-item distances was reflected by the Stress function (Kruskal & Wish, 1978). This function describes the rising relationship between inter-item dissimilarity and inter-item distance. The lower the stress value the better the fit. Map refinement occurred by a process of iteratively minimising the Stress value by adjusting inter-item distances (Kruskal & Wish, 1978).

The reliability of a map generated by multidimensional scaling was tested by randomly generating split-half maps, and then applying three indices of reliability (Harvey, Bimler, Evans, Kirkland, & Pechtel, 2012). The first index was the correlation between inter-item distances between maps, the higher the r the greater the reliability. The second index was Procrustes Distance which compares individual points between maps, essentially evaluating the reliability of the map's shape. Lower Procrustes Distance values indicate stronger reliability. The third index, Canonical Correlation, was a measure of the reliability of the dimensions between maps. This index asked whether each dimension had an equivalent in the two maps (Harvey et al., 2012). All of the statistical analyses were performed using IBM SPSS Statistics Version 25.

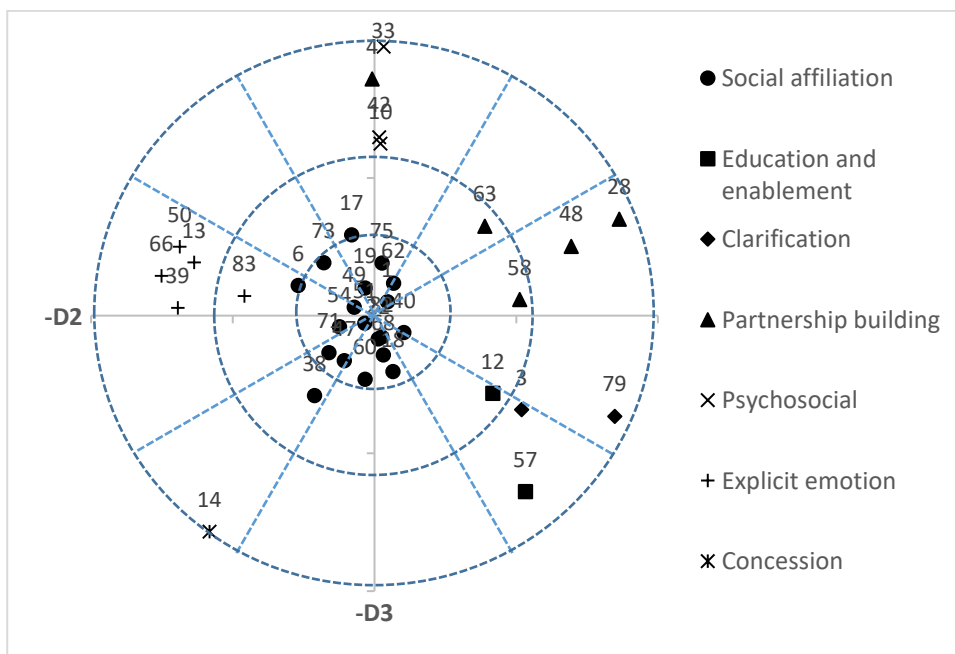
Results

The goodness-of-fit of the dimensional solution for the participant-derived map was evaluated via the computation of stress values. The participant-derived map had two- and three-dimensional stress values of 0.289 and 0.204 respectively. Applying 'rules-of-thumb' including the point of inflection of a scree plot of stress against dimensionality, indicated the three dimensional solution as optimal. A fourth dimension reduced stress incrementally to 0.156, but reduced interpretability.

The participant-derived map had an inter-item distance correlation of $r = 0.63$. This seems low, however the split-half maps correlated with the complete map with values of $r = 0.85$ and $r = 0.88$. The Procrustes distance was $g_1 = 0.11$. These values are

indicative of an internally consistent map with regard to item position and shape. The canonical correlation values for the map ($r = 0.62-0.86$, $p < 0.001$) also indicated the dimensions were stable.

If items adequately cover a conceptual space, their distribution will approximate the surface of a sphere. Conversely, when there is a void in the spherical distribution of items this indicates a behavioural theme within the conceptual space is not covered by the items. Figure 2 presents the spherical distribution of items within the three-dimensional map in split-hemisphere form below. The split-hemispheres present the distribution of items as though the spheres have been sliced through the origin, with the Dimension 1 (D1)-axis projecting from the centre towards the viewer. The concentric circles around the origin are indicative of projections from the origin to the surface of the sphere of 30° and 60°. The peripheral circle represents zero in the D1-axis.



-D1 hemisphere

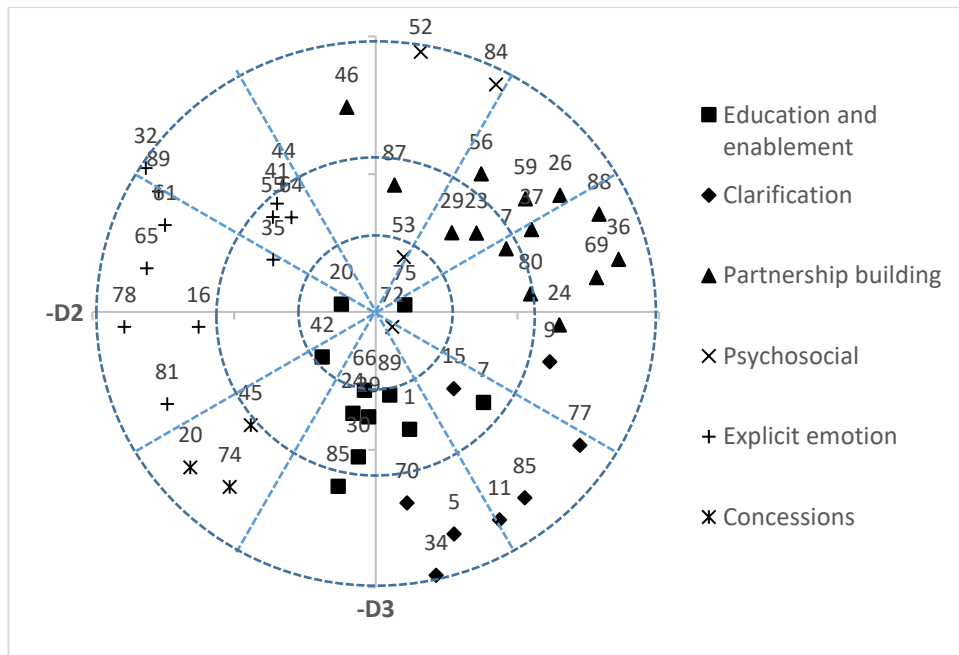


Figure 2. Split hemisphere views of the patient-derived map of General Practice doctors' behaviour (D1 Relational, centre; D2 Affective, horizontal; D3 Instrumental, vertical).

The underlying characteristic defining a dimension is determined by examining the items at the poles of that dimension. These items are often part of clusters representing a common underlying theme.

Table 5 and 6 summarise these clusters of behaviours and the dimensions they define.

Table 5.

Dimensions and Poles of the Patient-Derived Map of Doctors' Behaviour

Dimension	Negative Pole	Positive Pole
D1 Relational	Social goals	Biomedical goals
D2 Affective	Explicit emotion	Implicit emotion/problem-focused
D3 Instrumental	Biomedical task	Psychosocial task

Table 6.

Description of Behaviour Clusters in the Patient-Derived Map of Doctors' Behaviour

Cluster	Function (de Haes & Bensing, 2009)	Description
A. Fostering the relationship	Fostering the relationship	Verbal and non-verbal behaviour to create rapport, develop and maintain relationships
B. Education and enablement	Enabling disease and treatment related behaviour	Conscientious, caring, education about, and engagement in, the biomedical
C. Mutual understanding	?	The doctor utilises 'participatory facilitators' to establish shared meaning
D. Partnership building	Decision making	Information is exchanged and decisions are made, the patient is actively engaged and encouraged to participate
E. Psychosocial	Gathering information	Beliefs, motivation, family context
F. Responding to emotions	Responding to emotions	Responding to emotion verbally and non-verbally with concern, reassurance and legitimation

G. Concession	?	Doctors concede limitations in judgment and performance
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The negative pole of the D1 dimension is exclusively occupied by behaviours of the Fostering the Relationship cluster (A). Behaviours within this cluster contribute to the development and maintenance of patient respect, familiarity, minimising potential offence, and good communication generally. For example, ‘apologises if late’, ‘engages in social chat’. These behaviours are typical of everyday, or negative, politeness. In contrast, at the positive pole of D1 we find biomedical behaviours predominantly from the Education and Enablement cluster (B), but also from the Partnership Building (D) and Responding to Emotions (F) clusters. Despite the dominance of biomedical behaviours, framing of these behaviours balances social and illocutionary goals: suggesting, warning, promising, requesting, complimenting. For example, ‘Warns me he/she has serious news’, ‘Offers further tests’, ‘Says when he’s/she’s impressed by my progress’. Such framing assigns positive value to the addressee (the patient), consistent with a linguistic form termed positive-politeness.(Leech, 2014). Because of the pragmatic linguistic distinction between the poles, it is proposed D1 be defined based on the communication process of relationship management. Consequently, D1 is termed Relational, as while attempting to manage the doctor-patient relationship and competing health and social goals, the behaviours span a continuum from negative to positive politeness.

The negative pole of D2 is dominated by behaviours from the Responding to Emotions cluster (F). Examples include, ‘Says how she/he would feel in my situation’, and ‘My emotion is reflected in the doctor’s tone’. In contrast the positive pole of D2 is dominated by behaviours of the Partnership Building cluster (D), containing no explicit emotion. For example, ‘Shares decision making’, ‘Asks me what I think is most

important'. Previous research suggests such partnership behaviour and problem-solving occurs in times of uncertainty, and functions to distribute cognitive and affective load (Shared mind, Chapter 2). Thus, this dimension is termed Affective and spans a continuum from explicit to implicit emotion.

Unlike D1 and D2, neither pole of D3 is dominated by behaviours from a single cluster. However, at the positive pole there are five information gathering behaviours from the Psychosocial cluster I. For example, 'Asks about my life', 'Asks about my family'. Other behaviours from the Responding to Emotions (F) and Partnership (D) clusters compliment this psychosocial emphasis. In contrast, the negative pole is characterised by behaviours of a biomedical nature from the Education and Enablement (B), and Mutual Understanding (C) clusters. Thus, D3 is termed Instrumental, with Biomedical and Psychosocial poles.

Discussion and Conclusion

Discussion

This study generated a multi-dimensional map of the social-emotional practices of General Practitioners from the patient perspective. The organisation of the behaviours within the map displays both similarities and significant differences to existing dimensional and functional models of doctor behaviour, previously generated based on the doctor perspective.

At the functional level of modelling there are clusters of behaviour consistent with the themes of fostering the relationship, educating and enabling patients, and responding to emotions (de Haes & Bensing, 2009). However, distinct clusters of decision-making and information-provision behaviours are absent. While there is an

information-gathering cluster of behaviour this is focused on the psychosocial, a distinct biomedical information gathering cluster is absent.

The null hypothesis for the absence of such functional clusters of behaviour, is an incomplete item set with inadequate coverage of the conceptual space. Indeed, examination of the item set shows items which query symptoms and treatment directly are lacking. This paucity of biomedical information-gathering is potentially a consequence of qualitative methodology utilised to generate the item set (Chapter 2). This includes bias introduced by the stem questions participants were asked during the interviews, and a known tendency of participants to discuss aspects of relationship when interviewed about their doctor (Baron-Epel et al., 2001) These questions were: “what does your doctor do to be a good doctor?” and “how does your doctor respond to emotions?” Both of these possible explanations are framing artefacts. In addition, the female dominated sample in this study may be more relationship focused.

There is an alternative ontological interpretation of such framing artefacts. That is, behaviours are framed in a way which reflects participant experience as patient, and this differs from the observations and opinion of communication experts. Thus, an alternative hypothesis to explain the deviation of the map from existing ‘expert’ functional models of medical communication, is the manifestation of patient perspective of communication behaviour. For example, while decision-making does not emerge as a distinct cluster, decision-making behaviours are present in the Partnership Building cluster. This cluster is characterised by behaviours Roter and Larson (2001) describe as ‘participatory facilitators’, such as asking for patient opinion. For example, ‘Asks what test-results mean to me’, and ‘Discusses my decision-making preferences’. Moreover, this alternative hypothesis is supported by the presence of biomedical behaviours which

would be missing if participants focused solely on relationship behaviour. These behaviours define one pole of the Instrumental dimension (D3) of the map.

As with the functional organisation of the map, the dimensional organisation of behavioural items in the map displays similarities with existing models of medical communication behaviour. These models include Instrumental and Affective dimensions (De Valck, Bensing, Bruynooghe, & Batenburg, 2001; Roter & Hall, 1989), which are evident in the current study. However, in a significant deviation from existing models, the map generated in the current study also identifies a previously uncharacterised Relational dimension.

Arguably, the Relational dimension could be described as a second Instrumental dimension extending from social affiliative tasks at the negative pole, to biomedical tasks at the positive pole. However, we encourage readers to consider the form and function, or context free/context-sensitive aspects of the behaviour. In the field of linguistics such considerations are also known as pragma-linguistics or socio-pragmatics, specifically as they relate to Politeness Theory.

Politeness serves to constrain communicative behaviour with the social goal of good communicative relationships. That is, to maximise social concord and minimise discord (Leech, 2014). However, this social goal competes with illocutionary goals which impose upon the addressee, such as asking or directing patients in the service of biomedical objectives. These objectives are evident at the positive pole of D1, but they are framed as offers or invitations to participate, which serves to assign value to the patient's autonomy. This is a convivial rather than competitive linguistic form that protects the relationship. Such form is known as 'positive-politeness' (Leech, 2014). In contrast, the negative pole of D1 focuses primarily on the social relationship. While predominantly non-verbal, the pole is characterised by behaviours which minimise

potential offense, show the doctor is attentive, reduce social distance, and increase solidarity. Behaviours consistent with 'negative-politeness' (Leech, 2014).

Overall in the dimensional organisation of the map, we again see the manifestation of patient perspective. Patients who perceive a positive relationship with their doctor describe behaviours which are collaborative, convivial, and participatory. This patient perspective is also evident in the global shape of the map. In a map with good coverage of the conceptual space, the distribution of behavioural items will be homogeneous and approximate the surface of a sphere. This is true of the +D1 hemisphere, but not the -D1 (Figures 2). Again, the null hypothesis is the absence of behaviours in the item-set, in this case, specifically behaviours which are highly socially-affiliative and negatively polite. But the alternative hypothesis is the incompatibility of certain combinations of dimensional attributes with the patient perspective of positive experiences with their GP. For example, the lower left quadrant of the -D1 hemisphere is almost completely unoccupied. Behaviours hypothesised to fill this space would be characterised by explicit emotion, a biomedical task-focus, and function to minimise offense. The only behaviour in this space is consistent with these attributes, 'Acknowledges mistakes and apologises'. We can note other behaviours containing explicit emotion and a biomedical focus in the +D1 hemisphere. If such behaviour employed negative-politeness it would be indirect, understated, and not add value to the patient perspective- a combination of attributes which are possibly incompatible with the empathy patients desire and perceive positively.

Limitations. Behavioural items in the current study were generated from a thematic analysis (Study 1), which was biased with regard to the demographic characteristics of the sample. Specifically, females were over-represented in the sample, the cultural and ethnic characteristics were not representative of the population, and recruitment focused on positive consultation experiences with GPs. Similar gender and ethnic biases were present in the sample contributing data to the current study.

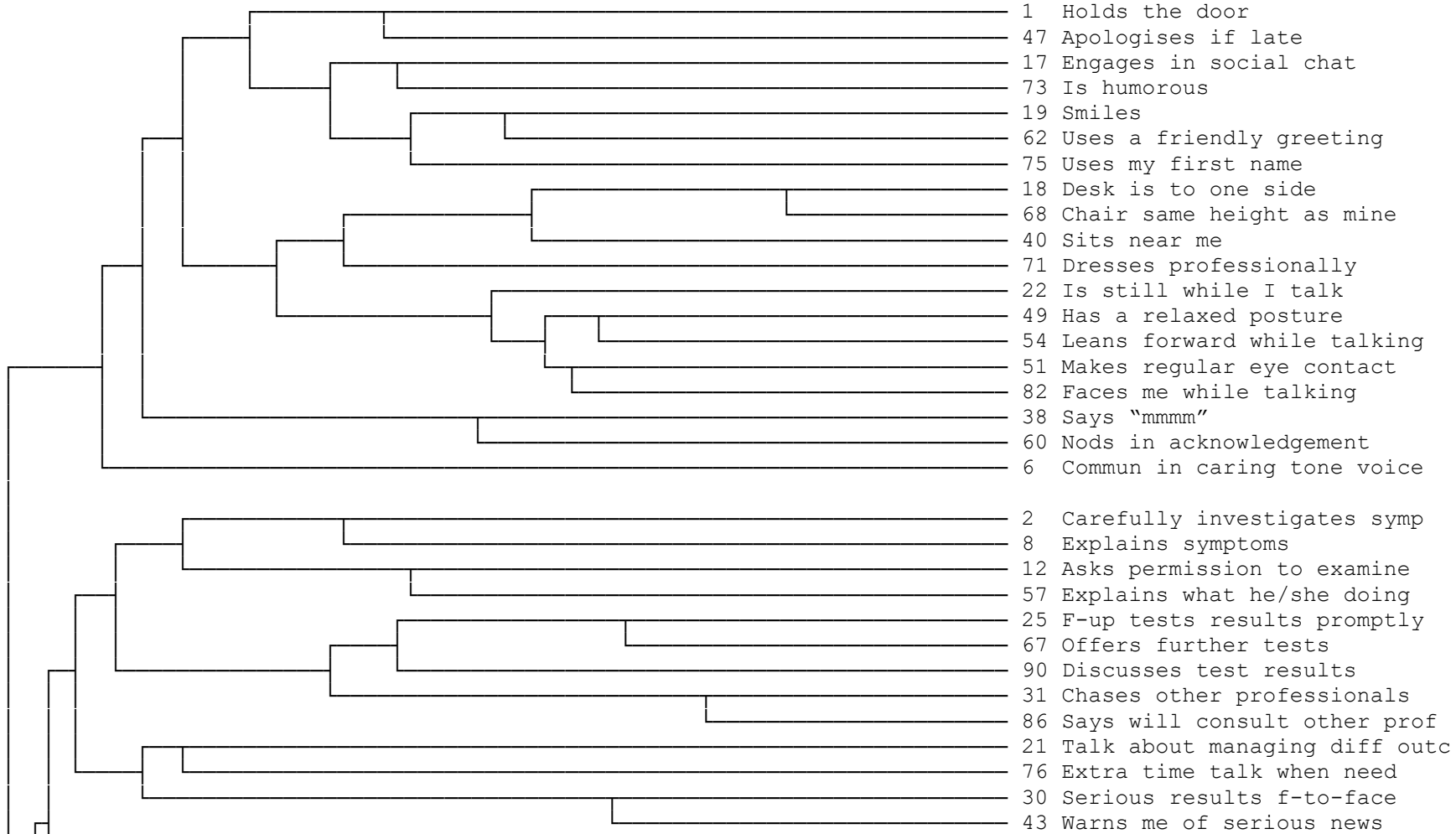
Discussion of the impact of this gender bias occurred in Study 1 and will be summarised again here. Male patients prefer a biomedical focus in medical consultations such that instrumental behaviours may be under-represented in our item set. Whereas female patients place greater emphasis on psychosocial and emotion-focused behaviours leading these to be relatively over-represented (Noro et al., 2017). However, speculating on the impact of gender bias is challenging as patient experience is also influenced by gender concordance and the gender of the doctor was not recorded in these studies. Female doctors encourage patient participation more, query psychosocial issues more frequently, and respond to emotions explicitly (Hall & Roter, 2002; Jefferson, Bloor, Birks, Hewitt, & Bland, 2013; Roter & Hall, 2004; Roter, Hall, & Aoki, 2002; Sandhu, Adams, Singleton, Clark-Carter, & Kidd, 2009), and this will also have impacted the composition of our item set.

In the current study, we asked participants to organise the items by similarity not preference which may reduce the impact of gender and culture, but the underlying biases of the item set being sorted remain from Study 1. Further research will be necessary to evaluate the generalisability of the results.

Conclusion and Future Directions

Encouragingly, when participants are asked to evaluate and organise doctors' social-emotional practices, the map which emerges overlaps considerably with existing models generated by communication experts. Clusters of behaviours reveal common behavioural functions. These included, fostering the relationship, patient education and enablement, and responding to emotions. At the dimensional level both our map and expert models identify instrumental and affective dimensions. Unique to the patient-derived map is the Relational dimension, a dimension describing the extent to which a given behaviour balances medical and relationship goals. The importance of such relational work was evident in the previous thematic analysis which generated the behavioural items utilised in current study (Chapter 2). Again, this highlights the importance of knowing the patient well in order to tailor healthcare. Unfortunately, this dimension could also be a reflection of the gender bias in both the items being sorted, and the participants sorting the items.

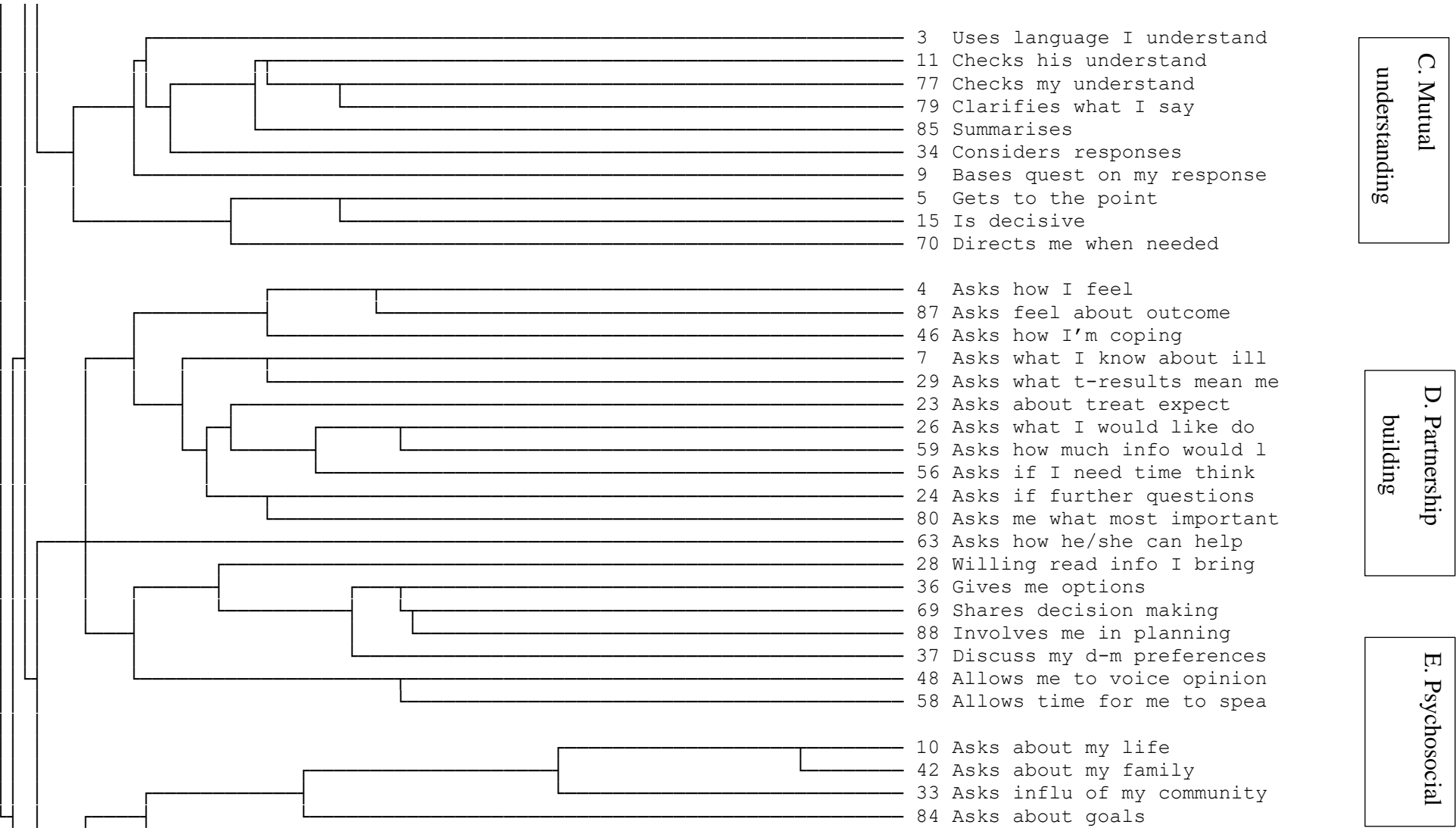
One of the limitations within the health communication literature discussed by Deledda (2013), is the heterogeneity of the definition of patient expectations. For example, expectation can mean preferred behaviour, but it could also reference experience. In this study of patient perspective, we utilised behaviours derived from actual patient experience. These behaviours were grouped by similarity alone. In future research, we will compare participants' actual experience as patients, with their idealised or preferred style of GP communication. Any discrepancy between experience and preference will be compared with a measure of therapeutic relationship. This will allow comment on the extent to which GPs are tailoring their communication to their patients' preferences, and the tolerance of patients for discrepancies.



A. Fostering the Relationship

B. Education and enablement

- 1 Holds the door
- 47 Apologises if late
- 17 Engages in social chat
- 73 Is humorous
- 19 Smiles
- 62 Uses a friendly greeting
- 75 Uses my first name
- 18 Desk is to one side
- 68 Chair same height as mine
- 40 Sits near me
- 71 Dresses professionally
- 22 Is still while I talk
- 49 Has a relaxed posture
- 54 Leans forward while talking
- 51 Makes regular eye contact
- 82 Faces me while talking
- 38 Says "mmm"
- 60 Nods in acknowledgement
- 6 Commun in caring tone voice
- 2 Carefully investigates symp
- 8 Explains symptoms
- 12 Asks permission to examine
- 57 Explains what he/she doing
- 25 F-up tests results promptly
- 67 Offers further tests
- 90 Discusses test results
- 31 Chases other professionals
- 86 Says will consult other prof
- 21 Talk about managing diff outc
- 76 Extra time talk when need
- 30 Serious results f-to-face
- 43 Warns me of serious news



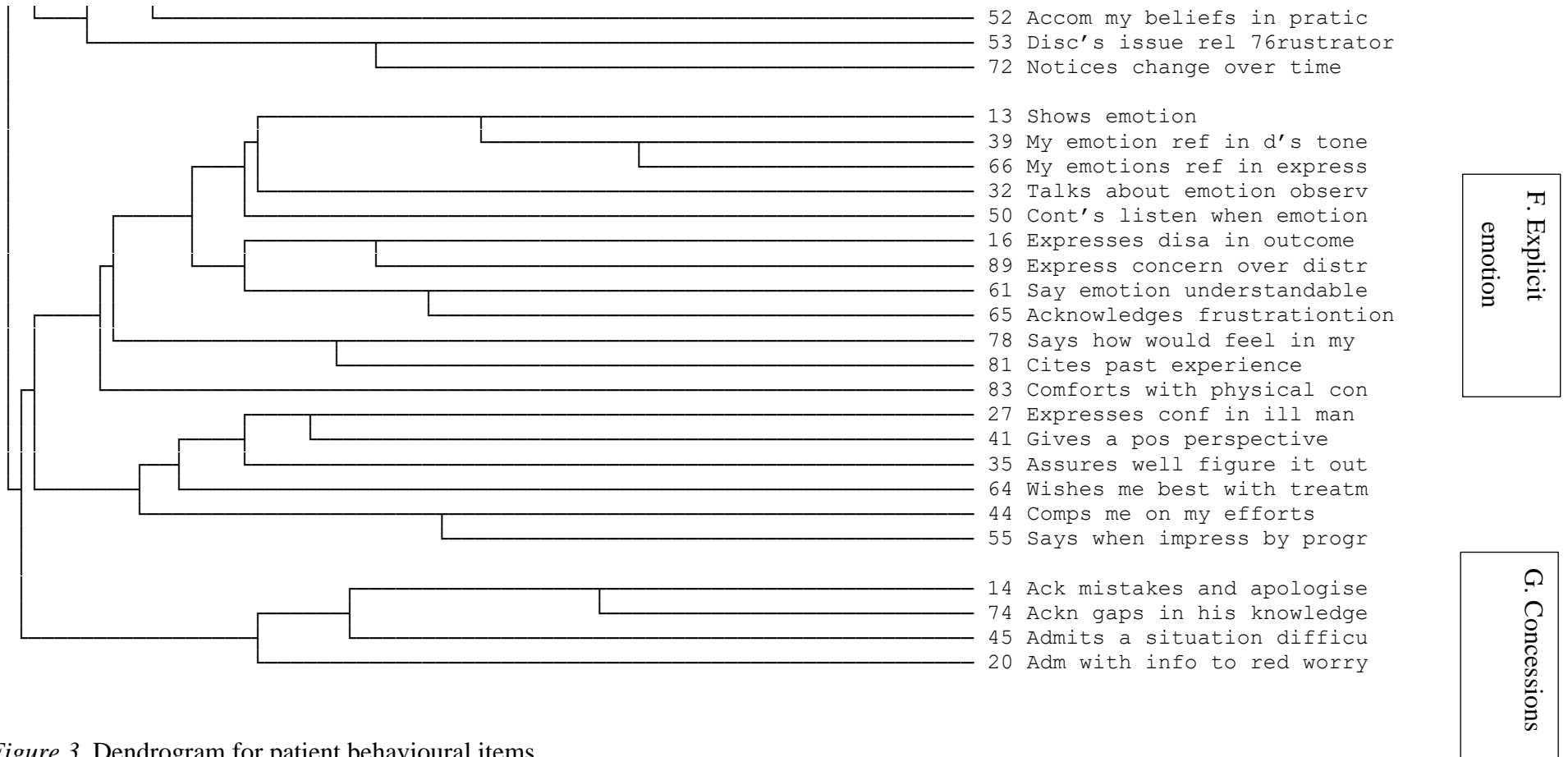


Figure 3. Dendrogram for patient behavioural items

Chapter Four: Patients' Preferred Communication Styles

Study 1 drew on participants' experiences as patients with their GPs, to identify communication behaviours experienced as positive in consultations. Study 2 then utilised patients to organise these communication behaviours, and thereby establish their underlying functional and dimensional characteristics. These behaviours are not deployed in an invariant manner. Rather, as would be expected of communication performing transactional, relational work, such behaviours coalesce into communication styles. Communication styles are believed to impact a range of health outcomes including symptom resolution, emotional health, pain control, blood glucose and blood pressure (Stewart, 1995).

Following a review of the development and definition of these communication styles, the following discussion explores the empirical evidence for the impact of communication styles, and the limitations of this research and the measures therein. We conclude with a summary describing the impetus for Study 3, a unique approach to patient perspective and preference fulfilment facilitated by Studies 1 and 2.

Communication Styles Defined

Historically, the doctor-patient communication style was defined as the doctor acting on the patient, the so-called Activity-Passivity style. Communication styles began to evolve in the 1950's with the rise of consumerism and recognition of the ethical principles of autonomy and beneficence. Consistent with these principles, Szasz (1956) proposed the Activity-Passivity, Guidance and Cooperation (Biomedical/biopsychosocial or Paternalism), Mutual participation (person-focused or patient-centred) communication styles. These styles are differentiated by increasing

degrees of patient control and participation, communication variables which are arguably influenced the power differential between doctors and patients.

Power is defined as the ability to act. In the medical context, a doctor's power lies in three domains: Force, granted by legal and social authority; material medical resources; and knowledge (Goodyear-Smith & Buetow, 2001). Traditionally this power led to patriarchal medical systems, and paternalism in doctor-patient relationships. However, it is important to acknowledge, patients also have power in each of these domains to varying degrees, in the form of social standing, wealth, and knowledge. Knowledge includes experience with their own bodies, values, and preferences. Furthermore, social changes such as consumerism and feminism, and technological developments such as the internet have increased patient power, and paternalism has declined. Doctors no longer have exclusive access to medical knowledge (Goodyear-Smith & Buetow, 2001).

However, there remains barriers to patient participation in medical consultations. Joseph-Williams (2014) discusses these in the context of SDM. One such barrier is the 'information paradox'. Patients require more information to participate in decision making, but at the same time doubt their ability to understand and utilise this information. Other barriers include 'covert contracts': the tendency of patients to become the 'good patient' or adopt the 'sick role' in which there is acquiescence to the power of the doctor. There could be several factors contributing to the adoption of a patient role. These factors include the tendency of humans to defer to perceived authority figures, and also the influence of illness on social functioning (Cassell, 2005). Such influence may lead patients to seek approval, and acknowledge a doctor's expertise through compliance. The influence of illness on behaviour was previously discussed in the context of distributed cognition and 'shared mind'.

Whatever the reason for underlying doctor-patient power differentials, the variables measured in attempts to provide empirical evidence for different communication styles, reflect the power differential. Roter and colleagues (Roter, 2000; Roter et al., 1997) utilised the RIAS and cluster analysis to define five communication styles in observed medical consultations. These styles could be differentiated by indices of physician control and verbal dominance, consistent with the proposed theoretical prototypes of communication. Two of these communication styles were consistent with paternalism and termed narrow-biomedical and biomedical in transition. Both styles had low patient control and a biomedical focus, but 'in transition' communication contained more psychosocial content. Such communication accounted for approximately 65% of doctor-patient interactions. A further 20% of interactions were categorised as biopsychosocial and characterised by collaboration rather than control, and approximately equal amounts of psychosocial and biomedical content in communication. The Psychosocial communication style is similar but argued to be more relationship-centred due to in-depth dialogue concerning social and emotional issues, and accounted for 8% of communication. The communication in the remaining 8% of interactions is termed Consumerism, and characterised by high patient control and verbal dominance (Roter, 2000). In summary, the communication styles identified are differentiated along continua of psychosocial to biomedical content, and patient to doctor control/verbal dominance. These styles and their prevalence are summarised in Table 7.

Table 7.

Communication Styles Defined Through Observational Coding of Doctors' Behaviour

	Content	Control	Percent
Biomedical- narrow	High biomedical	Doctor	33%
Biomedical- in transition	High biomedical, low psychosocial	Doctor	33%
Biopsychosocial	Equal biomedical and psychosocial	Shared	20%
Psychosocial	High psychosocial	Shared	8%
Consumerism	High biomedical, low psychosocial	Patient	8%

In other research, Flocke and colleagues (2002) identified high physician control, biomedical, biopsychosocial, and person-focused communication styles. Similar to the research of Roter and colleagues (2000), these styles differ in the degree of doctor versus patient control, and the degree of biomedical versus biopsychosocial content in the consultation. However, unlike previous research, these researchers combined observational coding with qualitative analyses to expand the definition of communication styles beyond consultation content and control variables. The expanded set of communication style variables includes: Physician orientation (problem to patient-focused); Scope of clinical information (biomedical to biopsychosocial); Affective connection with patients (personable and friendly to not friendly and maintaining professional distance); Openness to patient agenda (open to patient agenda to physician sets and maintains the agenda); Sharing of control in interaction (physician

shares control to physician controls the interaction); Negotiation of options (physician negotiates to physician does not negotiate). These variables and communication styles are closely aligned with the functional models discussed in Chapter 2 (Table 3).

In order to provide more detailed descriptions of communication styles, and facilitate comparison of styles described in the literature, Table 8 integrates the three-function model of medical communication and models of doctors' communication styles (de Haes & Bensing, 2009; Flocke et al., 2002; Lazare et al., 1995; Roter, 2000). The x-axis identifies the three functions of communication, and subdivides these functions where appropriate. Each of the x-axis categories defines a continuum when read vertically, such that there are six continua of behaviour. For example, within the gathering information subcategory the continuum of physician orientation ranges from patient-focused to disease-focused, the affective connection continuum ranges from personable and friendly to maintains professional distance. The y-axis is categorical and identifies the communication styles and the proportion of GPs using these styles as defined by Flocke and colleagues (2002). Reading horizontally it is possible to determine the position of each communication style on the behavioural continua.

Table 8.

Doctors' Communication Styles by Style Variable

Communication style	Communication function					
	Gathering information*		Enhancing healing relationships*	Making and implementing decisions*		
	Physician orientation	Scope of clinical information	Affective connection with patients	Openness to patient agenda	Sharing of control in interaction	Negotiation of options with patient
Person-focused (49%)	Patient-focused	Biopsychosocial	Personable and friendly	Patient sets the agenda	Physician shares control	Physician negotiates

Biopsychosocial (16%)	Disease-and patient focus	Mostly biomedical, some psychosocial	Moderately friendly	Open to patient agenda	Physician shares some control	Some negotiation
Biomedical (20%)	Disease-focused	Biomedical	Low friendliness	Some consideration of patient agenda	Little sharing of control	Little negotiation
High physician control (14%)	Disease-focused	Disease-focused	Not friendly, maintain professional distance	Physician sets and maintains the agenda	Physician controls the interaction	No negotiation

*Categories of a three-function model (de Haes & Bensing, 2009; Lazare et al., 1995) aligned with the physician style attributes (Flocke et al., 2002).

In summary, research suggests there are at least four communication styles and these vary on a range of variables or communication functions. The person-focused style has come to be most frequently termed patient-centred communication (PCC) in the research literature, and the constituent elements have become the focus of research into the impact of doctors' communication on patients. Patient-centred communication is characterised by elicitation of the patient's perspective, shared understanding of the patient's unique psychosocial context and the nature of the presenting issue with respect to their values, and shared control and responsibility through involvement in health choices (Epstein et al., 2005). This leads to this study's research question: What is the empirical evidence for the impact of communication styles upon health outcomes, and thus the impetus for communication research?

Empirical evidence for the impact of communication styles. One of the earliest and most frequently cited reviews of the impact of communication styles on health outcomes, examined 21 communication studies (Stewart, 1995). The review found most of the studies (16 of 21) demonstrated a significant positive correlation between physician-patient communication and health outcomes. The specific communication elements associated with improved health outcomes, described in detail in Table 9, included encouraging patient questions and participation in decision-making, and provision of emotional support (Roter, 2000; Stewart, 1995). The health outcomes influenced included emotional health, symptom resolution, functional health status such as self-care or mobility, physiological measures such as blood sugar and blood pressure, and pain control.

Table 9.

Stewart's Elements of Effective Doctor-Patient Communication
(Roter, 2000; Stewart, 1995)

Communication element	Description
Informing	Clear information with emotional support
Participation	Encourage questions. Full and open discussion. Ask about patient understanding, concerns, and expectations. Shared decision-making. Agreement on the issue and the follow-up plan
Responsivity	Probes feelings and emotions explicitly, expresses support and empathy
Facilitation	Full patient expression of feelings, opinions, and information, patient successfully obtains information

Further research has indicated patients have lower levels of anxiety and depression following consultations in which doctors display a social-emotional focus, compared to consultations with technically-focused doctors (Fallowfield et al., 1990). Furthermore, a participatory communication style, often operationalised as shared decision-making, is positively associated with patient trust in their doctor, a sense of control, and self-efficacy (Arora, Weaver, Clayman, Oakley-Girvan, & Potosky, 2009).

Despite these positive findings, there are significant challenges to PCC as an optimal communication style. For example, a review of research into shared decision-making, one component of PCC, indicates only 43% of studies show a significant positive relationship between SDM and patient outcomes (Shay & Lafata, 2015). Additionally, randomised controlled trials show that while interventions aimed at a more participatory PCC style have a small to moderate impact upon doctors' communication skills, the impact on patient outcomes is small and sometimes non-

significant (Barth & Lannen, 2011; Uitterhoeve, Bensing, Grol, Demulder, & Van Achterberg, 2010). In one review the impact equates to 5 points on 100 point scales of patient satisfaction with level of care, pain, and disability (Oliveira et al., 2015).

In summary, research on the relationship between elements of doctors' PCC style and patient outcomes has yielded unconvincing, mixed results- either non-significant results, or significant but small positive associations. There are a number of factors potentially contributing to the unconvincing data. One of these factors could be the disparity between the patients' communication preferences and the communication style of the doctors. For example, Flocke and colleagues (2002) found the person-focused (patient-centred) style received the highest patient ratings for communication, accumulated knowledge of the patient, and coordination of care. But there were no differences between communication styles with regard to patients' preference to see their usual doctor, or continuity of care. Thus, while PCC impacts healthcare variables, this communication style and the outcomes impacted may not match the preferences of a proportion of the underlying patient population. Another factor contributing to the unconvincing data are the measures utilised in communication research. These are discussed below.

Measures

Communication measures are broadly divided into behavioural measures, and self-report judgment measures. Behavioural measures are effective for the objective evaluation of dependent variables, such as what doctors do when communicating with patients. But behavioural measures are poor predictors of the meaning patients interpret from such behaviour because actions and meaning do not have a one-to-one correspondence (Street & Mazor, 2017). For example, Franks and colleagues (2006) found a negative relationship between patients' glycosylated haemoglobin and doctors'

PCC behaviour, and a negative relationship between patients' glycosylated haemoglobin and their judgment of doctors' PCC behaviour. However, the patients' judgment did not mediate the association between doctors' PCC behaviour and glycosylated haemoglobin. The poor correspondence between observed doctor's behaviour and patients' perceived meaning may explain this outcome.

Self-reported judgments have the advantage of capturing patient perception and interpretation of doctors' behaviour. Such measures are the predominant outcome measures utilised in communication research. For example in the SDM research, only 25% of patient outcome measures were health outcomes, whereas 54% of patient outcome measures were 'affective-cognitive' measures (Shay & Lafata, 2015). These measures are self-report judgments, immediately following consultations, of constructs such as patients' perceived decisional conflict or satisfaction. Satisfaction is the most common patient outcome measure, and is discussed further below.

Satisfaction measures. Patient preference fulfilment has frequently been evaluated with satisfaction measures, and the use of these measures has been supported by correlations between patient satisfaction and patient adherence to treatment recommendations. However, as an indicator of preference fulfilment, satisfaction measures fail to meet validity criteria (Williams, 1994).

Firstly, satisfaction measures have limited predictive validity as analyses have indicated a strong positive bias in overall patient satisfaction. For example, overall patient satisfaction in UK general practices has exceeded 90% for over 30 years (Sitzia & Wood, 1997). Such limited variance in satisfaction over time and across practices, and a positive bias, suggest satisfaction is not sensitive to variance in underlying explanatory variables such as the fulfilment of communication preferences.

Secondly, concerns over predictive validity assume satisfaction measures have construct validity, that is, they gauge fulfilment of communication preferences. A review of the use of satisfaction measures in the research literature shows satisfaction is widely utilised, and identified four contexts in which satisfaction with the doctor is evaluated: overall healthcare, specific medical encounter, the healthcare team, or satisfaction with the doctor (Boquiren, Hack, Beaver, & Williamson, 2015). Although satisfaction with the doctor can be the sole focus of a satisfaction measure, these researchers also highlight the subdivision of the construct into five domains of doctors' behaviour. These behavioural domains include the communication attributes, relational conduct, technical skill, personal qualities (such as empathy, friendliness, and caring), and availability (Boquiren et al., 2015). Thus, many variables influence satisfaction in addition to the doctors' communication style and the degree to which this fulfils patient preferences. In support of this assertion, when satisfaction is operationalised as the extent of expectation fulfilment, this only accounts for 8% of the variance in satisfaction (Linder-Pelz, 1982). Furthermore, expectations can have an impact on satisfaction independently of their fulfilment. For example, beliefs about a doctor prior to a consultation can influence satisfaction regardless of the doctor's behaviour.

Finally, there is an assumption satisfaction measures hold face validity for patients. That is, patients hold preferences for their healthcare, and they make judgments of satisfaction related to preference fulfilment. Williams (1994) suggests there are conditions in which this is not the case. For example, if a patient is encountering a health service for the first time, he or she may not hold preferences.

In summary, satisfaction as a measure of fulfilled communication preferences has poor predictive validity, face validity, and construct validity. Overall, satisfaction

lacks the sensitivity and specificity to explore the relationship between doctor behaviour and health outcomes.

Alliance measures. An alternative measure of the fulfilment of patient preferences is found in the psychotherapy context, alliance. Alliance has a tripartite construct definition consisting of three components: tasks, goals, and bond. The tasks of therapy are the cognitions and behaviours of therapy, aimed at achieving mutually agreed upon goals that are the targets of the therapeutic intervention. Such a mutual and collaborative therapy process requires a trusting, accepting bond between the therapist and patient. Thus, the three components of alliance interact and they are mutually constructed. The interactive, mutual collaboration of alliance, distinguishes the construct from Rogerian ideas of therapist provided conditions as sufficient for therapeutic progress (Bordin, 1979). The mutually collaborative core of the alliance construct is evident in factor analyses of alliance measures. Although these analyses identify task, goal, and bond factors, these factors are highly correlated (Horvath & Greenberg, 1989). Furthermore, when data representing the therapist and patient perspective of alliance is analysed, a shared view factor is identified. The patient contribution to shared view is a factor termed confident collaboration, which indicates the degree to which patients are committed to a therapy process that is positive, valuable, and purposeful (Hatcher, Barends, Hansell, & Gutfreund, 1995; Hatcher & Barends, 1996).

There is empirical support for the validity of alliance in the psychotherapy context. Alliance accounts for 50% of the impact of therapy on treatment outcomes across a range of treatment paradigms, consistent with predictive validity. Furthermore, face validity of alliance measures for health-consumers is evident in relatively stronger

associations of their alliance appraisals to health outcomes compared with appraisals by therapists or observers (Horvath & Symonds, 1991; Wampold, 2010).

In summary, the alliance construct captures the affective, instrumental, and relational aspects of models of doctors' communication, and the patient-derived map generated in Study 2 of this research. Furthermore, alliance captures mutual collaboration suggested by the theory of shared mind (Epstein & Street Jr, 2011). When combined with empirical support for validity and the alliance's importance independent of treatment paradigm, research interest in the generalisability of alliance as a measure of preference fulfilment and predictor of treatment outcome to the medical context is unsurprising.

Alliance measures in the medical context. Alliance measures have either been ported from the psychotherapy context by rephrasing the questions, such as the Physician-Patient Working Alliance Inventory (PPWAI) version of the Working Alliance Inventory (WAI) (Fuertes et al., 2007), or they have been created by combining the three factors of alliance with context-specific considerations. For example, Mack and colleagues (2009) created The Human Connection (THC) Scale on the basis of a combination of patient-reported priorities in end of life care, researchers experience, and alliance theory.

Thus far, alliance research in the medical context has yielded encouraging outcomes across a range of medical contexts. The contexts explored include occupational therapy (Crepeau & Garren, 2011), rheumatology (Fuertes, Anand, Haggerty, Kestenbaum, & Rosenblum, 2015), physical rehabilitation (Hall, Ferreira, Maher, Latimer, & Ferreira, 2010), stroke rehabilitation (Lawton, Haddock, Conroy, & Sage, 2016), weight loss behaviour (Larocque, Lecomte, Savard, Stotland, & Sadikaj, 2015), and end of life care in an oncology setting (Mack et al., 2009). Meta-analysis has

shown medium effect sizes for the relationship between alliance and adherence, self-efficacy of adherence, perception of the utility of treatment, and health care outcome expectations (Fuertes, Toporovsky, Reyes, & Osborne, 2017). In addition to these quantitative measures of alliance outcomes, research has yielded qualitative insights into the impact of alliance. For example, patient participation in their care increases when health care professionals are responsive to needs and preferences (Fuertes et al., 2015). In the oncology context, increased acceptance of terminal illness and decreased intensive care were observed to be related to a strong alliance with patients (Mack et al., 2009).

To summarise, although findings support a relationship between alliance and health outcomes, this relationship is not informative with regard to the communication behaviours leading to alliance. However, the bond and technical aspects of the alliance construct align well with the affective and instrumental dimensions of models of medical communication, and the map generated in Study 2. Therefore, as an outcome measure, alliance may have a greater degree of specificity and a stronger relationship with communication behaviour, than satisfaction. If Study 3 can demonstrate a relationship between alliance, communication styles, and the behaviours therein, this relationship may inform specific adjustments to communication behaviour to enhance alliance and in turn health outcomes.

Study 3 attempts to address three specific gaps in our knowledge of medical communication. What are the communication styles preferred and experienced by patients? How closely do patient experiences of their doctor's communication match their communication preferences? Is alliance sensitive to a discrepancy between communication experienced by patients and their preferences?

Study 3. Social-Emotional Practice Styles of General Practitioners: A Patients' Perspective

Research indicates the communication style utilised by doctors has a significant positive association with patient health outcomes. These outcomes include emotional health, symptom resolution, functional status such as mobility, pain control, and physiological indicators of health such as glycosylated haemoglobin and blood pressure (Stewart, 1995). However, the connection between health outcomes and communication is not unequivocal. In Stewart's review (1995) the positive association was found in 16 of 21 studies, and a review of randomised controlled studies (RCTs) of communication interventions only identified a positive relationship in 44% of studies (Griffin et al., 2004). This inconsistency in the relationship between communication and patient outcomes has a number of potential sources. These include variance in patient preference for the doctor's communication style, the fulfilment of this preference, and measures chosen to gauge both communication style and the relationship of communication to patient outcomes.

Doctors' communication styles have evolved over time, although arguably the way in which experts differentiate communication style has not, with the emphasis remaining on control. Historically there was only one type of communication termed Activity-Passivity, in which the doctor had control and acted on the patient. The Guidance and Cooperation, and Mutual Participation styles were described in 1956 (Szasz & Hollender, 1956). These communication styles are differentiated by increasing degrees of patient control and participation in the consultation. Today these communication styles would be termed High Physician Control, Paternalism or Doctor-Centred, and Patient-Centred Communication (PCC).

Observational research has further differentiated these styles and quantified their relative occurrence. Roter and colleagues (1997) define five styles differentiated broadly by the content of the consultation (biomedical to psychosocial) and degree of doctor control. Doctor-centred styles, termed biomedical-narrow and in-transition accounted for approximately 65% of the consultations observed. In contrast, PCC styles, termed biopsychosocial and psychosocial, were observed in approximately 20% and 8% of consultations respectively. The balance of the consultations were described as high patient control and termed Consumerism. Similar communication styles were characterised by Flocke and colleagues (Flocke et al., 2002), but with more nuanced definitions through incorporation of qualitative data. Styles were defined by the following communication variables: physician orientation (problem or patient), affective connection, openness to the patient agenda, sharing control, and negotiation of options. Utilising these variables four communication styles were defined. High physician control, biomedical, and biopsychosocial styles accounted for the doctors' communication in 14, 20, and 16% of consultations respectively. Person-focused, a communication style equivalent to PCC accounted for 49% of doctors' consultations. These researchers argue this higher proportion of PCC to be a reflection of communication styles changing over time and a practice setting more accustomed to PCC (Flocke et al., 2002). That is, they collected data more recently, from family doctors practicing in the community, whereas only 53% of the doctors in the study by Roter and colleagues (1997) were family doctors and the remainder were internists. Furthermore, 40% of the doctors within Roter et al's (1997) study were working within managed care organizations .

Although communication styles have changed over time, and across contexts they are still defined by experts with an emphasis on control of, and participation in, the

consultation. Yet, this is inconsistent with the way experts have typically understood the communication behaviours contributing to a doctor's communication style, by reference to social reciprocity and social interaction theories. These theories organise behaviours around two dimensions, affective and instrumental, and these are reflected in observational coding systems (Ben-Sira, 1980; Gouldner, 1960; Hall & Roter, 1988; Roter & Hall, 1991). In a previous study, we mapped doctors' communication behaviour from the patient perspective and found support for affective and instrumental dimensions, in addition to a relational dimension. A control dimension was not evident (Chapter 3).

Nevertheless, driven by ethical ideals of autonomy and beneficence, elements of patient-centred communication which share control, such as shared decision-making and full disclosure of information, have become the focus of research. However, patients may prefer other styles of communication. For example, in one study 31% of patients preferred doctor-centred communication, compared with 69% expressing a preference for patient-centred care (Swenson et al., 2004). Furthermore, there are situations in which patients prefer less information, involvement, and patient-centeredness. For example, patients with higher levels of anxiety and a poorer prognosis desire less information (Kaplowitz, Campo, & Chiu, 2002). In summary, while there is variance in communication styles utilised by doctors, there is also variance in patient preferences for communication style, and both situational and idiosyncratic variance influence patient preferences. Consequently, mismatches between patients' communication preferences and doctors' communication style are likely to occur, and partly contribute to inconsistency in the association of doctors' communication and patient outcomes. This is supported by reviews of research focused on information provision to patients and involvement of patients in decision-making. Generally, when

patient consultation experience matches their preferences for the amount and kind of information, and level of participation in decisions, patients experience less psychological distress and greater satisfaction (Kiesler & Auerbach, 2006).

Inconsistency in the association between communication style and patient outcomes in research also originates from the measures utilised to gauge both elements of communication style and outcomes. As an example, consider shared decision-making (SDM), a communication element often measured as an indicator of PCC. The measures of SDM, and other variables, can be broadly categorised as self-report or observational, both types of measure have advantages and disadvantages. The advantage of observational measures is the ability to objectively record the behaviour associated with SDM, but the disadvantage is that observer ratings of SDM are poor predictors of patient self-report of participation in a shared decision (Kasper, Heesen, Köpke, Fulcher, & Geiger, 2011; Wunderlich et al., 2010). Observational measures generally cannot account for patient interpretation of the meaning of communication behaviour. In contrast, while self-report measures assess the meaning of experienced behaviour, they give no indication of behaviours contributing to the patient's perception of SDM, and they are influenced by cognitive biases (Street & Mazor, 2017). A recent review of the SDM research (Shay & Lafata, 2015), found 85% of studies utilised a patient self-report measure of SDM, and 54% of patient outcomes were based upon self-report measures. These outcome measures included measures of understanding, trust, and satisfaction. Satisfaction is the most widely utilised outcome measure in the communication literature, and it is often assumed to equate with the fulfilment of patient preferences (Williams, 1994). However, like other self-report measures the behaviours influencing satisfaction are unclear, resulting in questionable predictive and construct validity. Indeed, one review (Boquiren et al., 2015) highlighted the subdivision of the construct

into five domains of doctors' behaviour. These behavioural domains include the communication attributes, relational conduct, technical skill, personal qualities (such as empathy, friendliness, and caring), and availability (Boquiren et al., 2015). Thus many variables influence satisfaction in addition to the doctors' communication style and the degree to which this fulfils patient preferences. In support of this assertion, when satisfaction is operationalised as the extent of expectation fulfilment, this only accounts for 8% of the variance in satisfaction (Linder-Pelz, 1982). Furthermore, expectations can have an impact on satisfaction independently of their fulfilment. For example, beliefs about a doctor prior to a consultation can influence satisfaction regardless of the doctor's behaviour (Williams, 1994).

The alliance construct presents an alternative to satisfaction as an outcome measure. Alliance measures are gaining popularity in the medical communication literature, due to the success of this construct in accounting for a significant proportion of outcome variance across a range of psychotherapy paradigms (Wampold, 2010). Alliance can be defined as the capacity of the client and clinician to work together purposefully, and this includes agreement on the tasks and goals of therapy, and a trusting accepting relationship (Bordin, 1979; Greenson, 1967). However, task, goal, and bond items of alliance measures are highly correlated leading to the suggestion that alliance be described by a general alliance factor (Horvath & Greenberg, 1989; Horvath & Luborsky, 1993; Salvio, Beutler, Wood, & Engle, 1992).

Thus far, alliance research in the medical context has yielded encouraging findings across a range of medical contexts. The contexts explored include occupational therapy (Crepeau & Garren, 2011), rheumatology (Fuentes et al., 2015), physical rehabilitation (Hall et al., 2010), stroke rehabilitation (Lawton et al., 2016), weight loss behaviour (Larocque et al., 2015), and end of life care in an oncology setting (Mack et

al., 2009). Meta-analysis has shown medium effect sizes for the relationship between alliance and adherence, self-efficacy of adherence, perception of the utility of treatment, and health care outcome expectations (Fuertes et al., 2017). In addition to these quantitative measures of alliance outcomes, research has yielded qualitative insights into the impact of alliance. For example, in the oncology context, increased acceptance of terminal illness and decreased intensive care were observed to be related to a strong alliance with patients (Mack et al., 2009). Overall, alliance holds promise as a proxy for the quality of patient-doctor relationship, which in turn influences health outcomes.

In summary, a range of communication styles have been defined, but these are based upon the application of observational coding measures to doctors' consultations with patients. Such profiles of doctors' communication have an emphasis on control and do not incorporate a perspective from patient experience. Consequently, we continue to perpetuate the theory of experts. When the patient perspective of specific communication elements is explored this often involves the use of self-report measures with a weak relationship to observable behaviour. In particular, satisfaction measures are frequently used and lack validity. To address these issues, the current study had three aims. Firstly, to generate profiles of doctors' communication behaviour from the patient perspective, based upon both their experience and their preferred communication behaviour. In doing so we utilised the multi-dimensional map of communication behaviour from the patient perspective (Chapter 3) as a baseline through which to interpret and compare the patient perspective of communication styles. Secondly, to explore the congruence between this experienced behaviour and patients' preferred communication behaviour. Thirdly, to explore the use of alliance as a more specific self-report measure, and its relationship to patients' self-reported communication preference discrepancy. We hypothesise three outcomes in addressing these research

aims. Firstly, although we do not believe there is a control dimension, our conceptual map of communication includes behaviours necessary for mutual understanding and patient participation. Therefore we hypothesise the communication styles characterised will span a continuum of patient participation consistent with previous research.

Secondly, we assume alliance is a reflection of the quality of the patient-doctor relationship, and effective communication is a requisite for this relationship. Therefore, our second hypothesis is that a mismatch between patient communication preferences, and their experiences will be negatively correlated with patient-doctor alliance. This prompts our third hypothesis, if alliance is related to the mismatch between patient communication preferences and experiences rather than the communication style, there will be no significant difference in the strength of alliance when comparing alliance by communication style.

Method

Participants

There were 100 participants (25 males, 75 females, $M_{age} = 37.87$, $SD_{age} = 14.04$, age range: 18-72 years). The participants estimated mean years of relationship with, and mean frequency of visits per year to their GP were 11.14 ($SD = 10.01$) and 3.78 ($SD = 3.15$) respectively. Thirty-one of the participants were students, 22 were involved in business administration or management, 10 were unemployed, seven were involved in building trades, seven were involved in science and engineering, five were health professionals, four were retired, four were veterinarians, three were involved in legal services, and seven participants did not disclose their occupation. Seventy-three of the participants were of New Zealand European ethnicity, 14 were European, five were Mixed Māori/Pacifica/European, three were Māori, three were Asian, two were North American.

Participants volunteered in response to advertising at Massey University, New Zealand, both at the Palmerston North campus, and on the psychology graduate student mailing list (Appendix B). Following the initial response a 'snowballing' recruitment process was utilised with participants asked to distribute research materials to friends and family. To be included in the study participants had to be at least 18 years of age. Medical doctors, terminally ill patients, the principal author of the research, and research supervisors were excluded. The materials were distributed to 134 potential participants. One hundred participants returned completed card sorts. All participants provided written consent prior to participation and received a \$20 supermarket voucher in appreciation for participation (Appendix K).

Materials

Prior to administering the MOSS, the item set of GPs' communication behaviours (Chapter 3) was distilled down to reduce the cognitive load during sorting, and create a task of sufficient brevity to allow two sorts by each participant without inconvenience. A dendrogram generated by cluster analysis during MDS summarised the groups of similar items (Chapter 3), and was thus utilised as a guide to item reduction. Care was taken to insure each group or major branch of items was represented in the item set, and items considered to be too similar and therefore redundant were removed. This resulted in a 67-item set of doctors' communication behaviour.

Measures

The Health Alliance Scale (HAS) was completed by each participant prior to the MOSS (Appendix L). As no alliance measures specific to the General Practice context with adequate coverage of the components of alliance were available, the HAS was developed by the authors based upon a review of the alliance literature. Items were selected to evaluate different aspects of the bond and working alliance. The bond items were: 'The doctor does not/does understand me' (empathic resonance), 'The doctor and I do not/do get along' (mutual affirmation or liking/warmth), 'The doctor does not/does respect my choices' (mutual affirmation, autonomy), 'I do not/do have a good working relationship with my doctor'. The working alliance items were: 'I am not/am committed to working with my doctor to improve my health' (progressive confident collaboration on goals and tasks), 'The doctor and I do not/do have a shared focus' (goals, clarity and agreement), 'I do not/do like my doctor's approach' (approach and tasks to achieve goals). The result is a measure with seven items to assess alliance between the patient and doctor. Each item is associated with a visual analogue scale 10 cm in length.

The scores for the alliance items ranged from 0.15 to 10 ($M = 7.26-8.11$, $SD = 1.67-2.49$). Alliance items were non-normally distributed, with skewness of -1.92 to -1.16 ($SE = 0.24$) and kurtosis of 0.50 to 4.64 ($SE = 0.48$). To address the assumptions of normality, homogeneity of variance, and comparably-shaped distributions. The data were reverse scored and then log transformed. The Cronbach's alpha for the transformed measure was 0.91. Principal Component Analysis suggested the items load onto a single component. Overall alliance was determined by calculating the mean value of the transformed item scores.

Procedure

Prior to commencing recruitment the Massey University Ethics Committee approved a Low Risk Notification. Each participant in this study completed two MOSS tasks (Kirkland et al., 2004). In one task the participants sorted the items according to how frequently they observed their GP doing the behaviour on the item card, and in the other task they sorted the items according to how helpful they found the behaviour on the item card. Ranking items in such sorts is believed to result in more careful consideration of the items than Likert scales (Kirkland et al., 2004).

The order of the sorting tasks was randomised. Half of the participants were instructed to perform the frequency sort first, half performed the helpfulness sort first. The setting of the card sort was not standardised, participants performed the sort at location and time of their convenience. Before beginning the sort the participant shuffled the deck of cards. To sort the cards in response to the stem question, 'How helpful are these behaviours?' the participant was asked to divide the cards into three piles: 'Most helpful', 'Not sure', and 'Least helpful'. Participants were asked to have at least thirty cards in the 'Most helpful' and 'Least helpful' piles, and seven cards or fewer in the 'Not sure' pile. Then the participant was asked to further subdivide 'Most

helpful' into 'Very helpful' and 'Helpful' piles. The 'Least helpful' pile was subdivided into 'Slightly helpful' and 'Not helpful' piles. Each participant also sorted the cards in response to the stem question, 'How often do you see these behaviours?', with the same sorting rules. In this frequency sort the first card piles were, 'Regularly seen', 'Not sure', and 'Seen, but not regularly'. Participants then subdivided the 'Regularly seen' pile into 'Always or very often seen' and 'Often seen' piles. The 'Seen, but not regularly' pile was subdivided into 'Sometimes seen', and 'Rarely or never seen'. The same limits applied to the 'Not sure' pile (Appendices M-O).

Sorting items with such rules is believed to result in more careful consideration of underlying attributes, in this case degree of helpfulness or frequency of experience, than the use of Likert scales (Kirkland et al., 2004). A numerical value indicating the degree of helpfulness or frequency was assigned, but this was based on an item's final sort pile relative to other items. In this way items were ranked.

Analysis

This study utilised a profiling methodology developed by Kirkland and colleagues (2004). This methodology builds upon the three dimensional map of General Practice Doctors' (GPs') communication behaviour from the patients' perspective (Chapter 3), as a stable and coherent map of patients' shared interpretation of communication behaviour. The map was utilised as a 'filter' to interpret and integrate subjective data (Bimler & Kirkland, 2001). That is, behaviours in close proximity in the map were expected to have similar rank values, and any discrepancy was interpreted as noise and 'filtered' by averaging the values of similar items. This reduced the data to 'hotspots', or clusters of behaviours with both similar meaning and probability of being endorsed in subjective profiling. This method of profiling is similar to concept or preference mapping (Carroll, 1972; Trochim, 1989).

All participants sorting data was pooled which allowed the dimensional coordinates of hotspots to be determined. This was an iterative process that utilised a 'gradient-descent' algorithm to seek maximum agreement between participant ranking data and position of the hotspots (Bimler & Kirkland, 2001; Kirkland et al., 2004). Once the number and coordinates of the hotspots were determined, hotspot profiles for both helpfulness (preference) and frequency of experience were generated for each participant by utilising sort data to determine weighted scores for each hotspot.

Further data reduction occurred by grouping similar hotspot profiles together. This was performed by applying Hierarchical Cluster Analysis (HCA) by Ward's method (Ward, 1963), to determine the optimal number of profile groups, within both the frequency and helpfulness data sets. HCA attempts to minimise within cluster variance, while maximising between cluster variance. The cluster centres from HCA were then utilised to seed k-means clustering and generate the final hotspot profiles. Confirmatory analysis utilised Principal Component Analysis (Hair et al., 2006).

The hotspot profiles were termed communication styles subsequent to their computation. The styles generated from data on degree of helpfulness were considered indicative of preferences, whereas those generated from frequency of experience were considered indicative of behaviour participants experience with their GP. In order to name and describe the communication styles, the relative values of the hotspots forming the style were considered. These values indicated the salience of one type of behaviour relative to another. A relatively high value indicated a strong preference or frequent type of behaviour in preferred and experienced styles respectively. Whereas a value of zero indicated the baseline, while a negative value for a hotspot indicated a low priority or rare type of behaviour.

In order to explore the discrepancy between preferred GP behaviour and experienced behaviour, or preference matching, these profiles were compared for each participant by calculating a discrepancy distance and Kruskal's-Lambda (Hair et al., 2006).

An overall discrepancy distance for each participant was determined by calculating the difference between equivalent hotspots in their two profiles, squaring this value, adding the values for the nine hotspots, and then calculating the square root. It was then possible to calculate an overall mean discrepancy for each of the summary helpful and frequency profiles emerging from kmeans cluster analysis.

Analysis of variance (ANOVA) was utilised to analyse the relationship between communication profile and discrepancy distance, and the relationship between communication profile and overall alliance. Pearson's correlation coefficient was used to analyse the association of discrepancy distance and overall alliance (Hair et al., 2006).

As profile membership is not a continuous variable, Kruskal's-Lambda (Hair et al., 2006) and cross-tab analysis were utilised to evaluate the predictive utility of the relationship between the behaviour participants experienced with their GPs, and the behaviour they preferred. Kruskal's lambda was utilised as a measure of proportional reduction in prediction error in cross-tabulation analysis. That is, when data can be described by nominal independent and dependent variables, the coefficient assesses the predictability of one variable given the state of the other.

All of the statistical analyses were performed using IBM SPSS Statistics Version 25.

Results

The hotspot profiling process generated nine hotspots. These are shown in Table 10, each with three behavioural items most closely associated with the hotspot in three-dimensional space. The hotspots approximate the multidimensional location of clusters of behaviours in the spatial map generated in a previous study (Chapter 3).

Table 10.

Hotspots

Hotspot description	Hotspot items
A. Fostering the relationship- verbal	Uses my first name; Asks about my life; Engages in social chat
B. Fostering the relationship- nonverbal	Dresses professionally; Has a relaxed posture; Makes regular eye contact
C. Education and enablement	Discusses test results; Gives serious results face- to-face; Follows-up test results promptly
D. Mutual understanding	Uses language I can understand; Checks my understanding; Checks his/her understanding
E. Partnership building	Discusses my decision-making preferences; Asks what test results mean for me; Asks about treatment expectations
F. Psychosocial	Asks how I feel; Asks about the influence of my community; Accommodates my beliefs in his/her practice

G. Responding to emotions	My emotions are reflected in the doctor's expression; Says how he/she would feel in my situation; Shows emotion
H. Support	Asks how I'm coping; Notices changes over time; Assures me we'll figure it out
I. Concession	Acknowledges gaps in his/her knowledge; Admits withholding information to reduce my worry; Acknowledges mistakes and apologises

Q-Principal Component Analysis suggested participants should be sorted into four components for both the frequency of doctors' observed behaviour, and the behaviour found helpful, but this was not supported by HCA. The 'elbow test' of the scree plots generated through HCA suggested three or five cluster solutions. A five profile solution was chosen as Q-PCA indicated three profiles would only explain approximately 60% of the variance in the data, compared to approximately 94% in a five profile solution. k-means analysis was subsequently utilised to optimally assign participants to the five clusters or hotspot profiles.

The distribution of participants across the five prototype hotspot profiles, henceforth termed communication styles, is shown in Table 11. Participants' preferred communication styles are described in Table 12.

Table 11.

Distribution of Participants Across the Communication Styles

Communication Style	Percentage of participants who prefer the style	Percentage of participants who experience the style
Empathiser	9%	6%
Consumerism	24%	34%
Socialiser	21%	13%
Patient-centred	26%	25%
Biopsychosocial	20%	22%

Table 12.

Brief Outline of Each Profile of Preferred Behaviour

Doctor profile	Description
1. <i>Empathiser</i> , but not problem-focused/instrumental	These patients prefer a doctor who displays emotion, and is highly emotionally responsive and available. The doctor focuses on regulating emotion and coping with illness, rather than the medical issues.
2. <i>Consumerism</i> , medically focused, but not concerned with rapport or the 'whole' patient	These patients prefer a doctor that is focused on addressing the presenting medical issue, while also being accountable. While this involves a degree of mutual understanding, the patient is not concerned with social interactions and being

- known and understood in a broader sense beyond the medical issues.
3. *Socialiser*, but not interested in medical collaboration
These patients prefer a doctor who attends to rapport, and how they are feeling. They do not prioritise a focus on the medical concerns in either a directive or collaborative way.
 4. *Patient-centred*, collaborative, but minimizes explicit emotion
These patients prefer a doctor who approaches health concerns in a highly collaborative and participatory manner that could be considered relationship or patient-centered. But they do not require the doctor engage with emotion or coping.
 5. *Biopsychosocial*
These patients did not exhibit a strong preference for any class of behaviour. They desire a focus on health issues, but in a range of ways that also assists them in coping with issues. They were not concerned with rapport and social affiliation.
-

To compare the preferred and experienced communication styles, and highlight their distinctive characteristics, the hotspot values for each style were plotted. This highlighted synonymous styles when comparing the preferred and experienced styles. For comparison doctors' communication styles as experienced by participants, and participants' preferred communication styles found to have a similar shape, are overlaid on the same figures (Figure 4-8). The value of a given hotspot on the y-axis indicates the salience of one type of behaviour relative to another for a given participant. In the preferred styles these scores could be considered priorities within their preferences, in

the experienced styles hotspot scores represent relative frequency. A high value indicates a high priority or relatively frequent type of behaviour, zero indicates the baseline, while a negative value for a hotspot indicates a low priority or rare type of behaviour. As shown below, discrepancy between participant experience and preference is high, and consequently concordance between participant membership of synonymous styles is low.

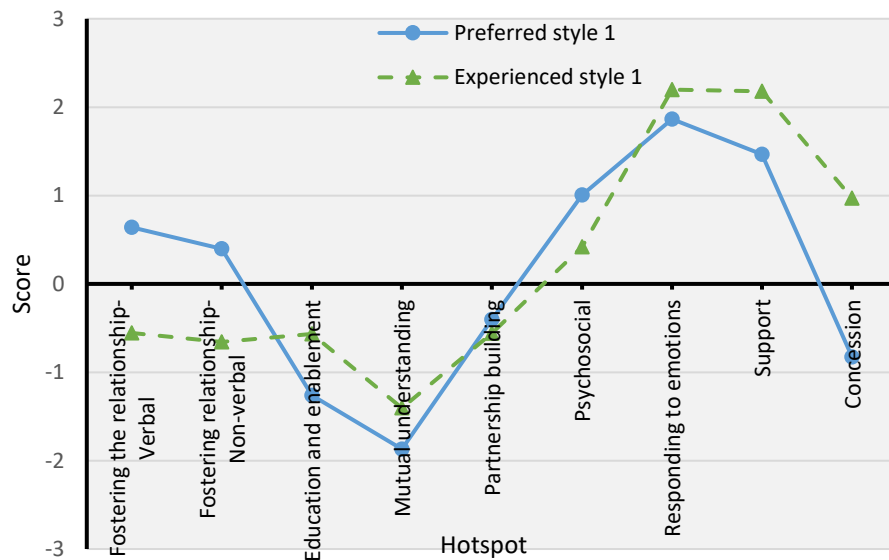


Figure 4. Hotspot scores for the *Empathiser* profile of experienced and preferred GP behaviour.

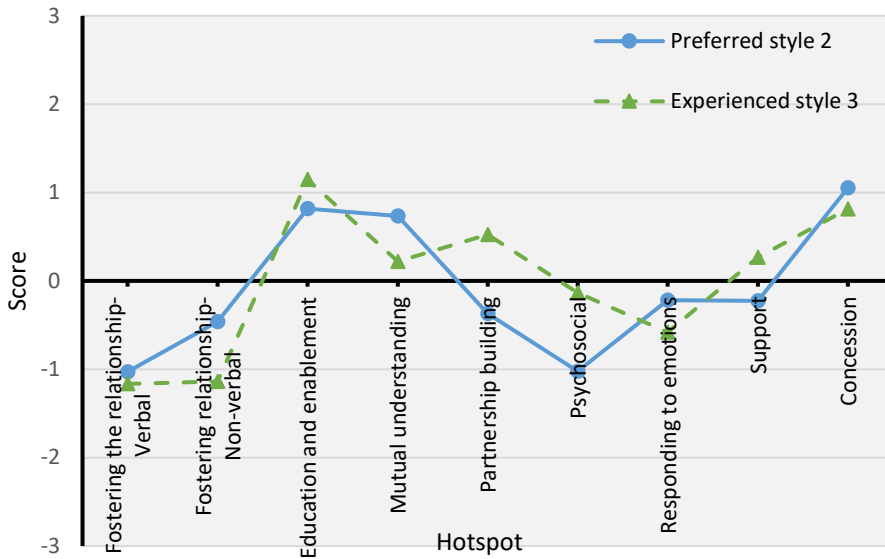


Figure 5. Hotspot scores for the *Consumerism* profile of experienced and preferred GP behaviour.

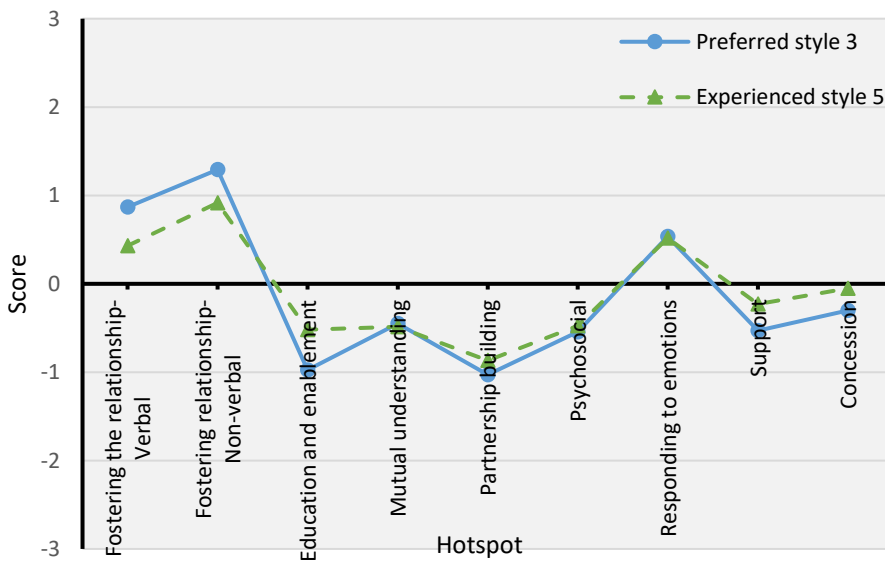


Figure 6. Hotspot scores for the *Socialiser* profile of experienced and preferred GP behaviour.

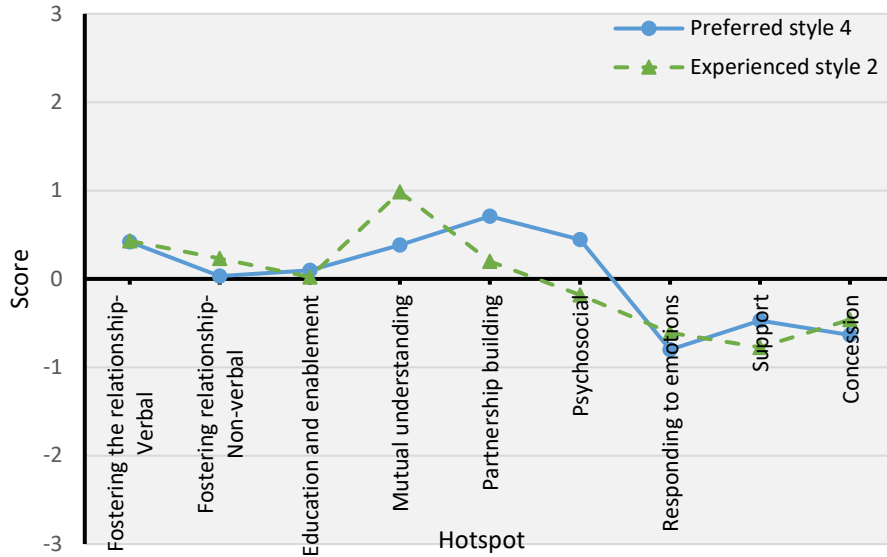


Figure 7. Hotspot scores for the *Patient-centred* profile of experienced and preferred GP behaviour.

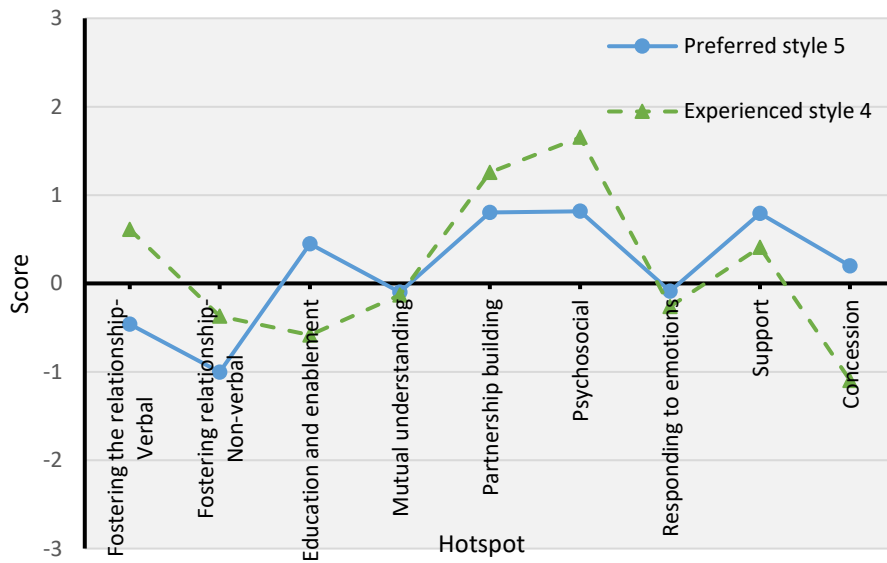


Figure 8. Hotspot scores for the *Biopsychosocial* profile of experienced and preferred GP behaviour.

Discrepancy analysis

Collecting sorting data for both the experienced communication behaviour, and preferences for the same behaviour, allowed the consideration of preference matching. The Kruskal's lambda, with preferred communication style as the independent variable was 0.230. With experienced style as the independent variable, Kruskal's lambda was 0.167.

The preferred and experienced communication styles have equivalent hotspots but variance in the degree to which these hotspots are endorsed. The discrepancy distance value is determined by calculating the difference between equivalent hotspot values, when comparing each participant's preferred and experienced communication style, and then averaging these differences. The magnitude of mismatch between preferred and experienced communication can then be explored by calculating the mean discrepancy distance value for participants by preferred communication style. The mean discrepancy values for each preferred communication style are shown in Figure 9, and indicates that for some styles the mismatch between preference and experience is greater.

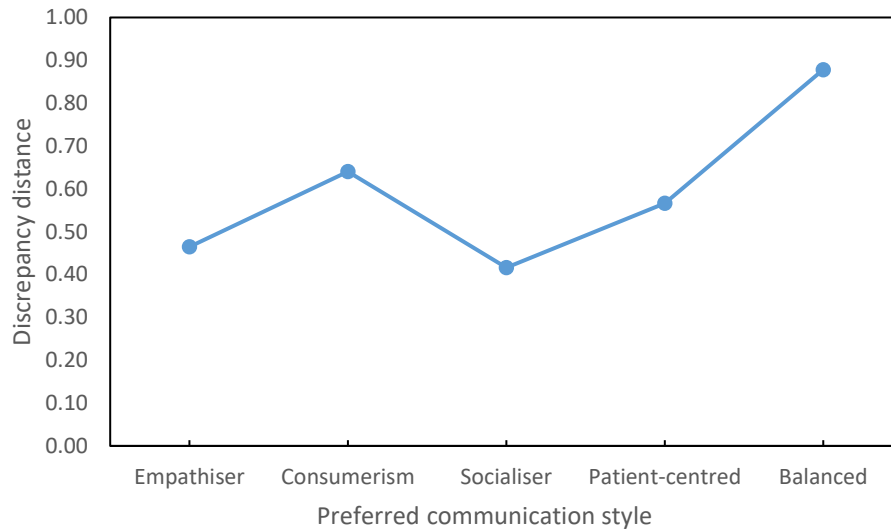


Figure 9. Mean hotspot discrepancy distance between participants' preferred and experienced communication behaviour styles.

An analysis of variance (ANOVA) showed that the effect of preferred communication style on the discrepancy was significant, $F(4, 95) = 18.1, p < .001$. However, the Levene's test indicated the assumption of homogeneity of variance was violated, $2.69, p = .036$. Consequently, the more robust Welch test of equality of means was utilised, and the effect of the communication style preferred by participants on discrepancy, was still significant, $F(4, 36.8) = 18.5, p < .001$. Post hoc analyses using the Games-Howell criterion for significance indicated that the average discrepancy was significantly greater for the *Biopsychosocial* communication style ($M = 0.88, SD = 0.22$), than the discrepancy in the *Empathiser* ($M = 0.46, SD = 0.17$), $p < .001$, *Consumerism* ($M = 0.64, SD = 0.22$), $p = .007$, *Socialiser* ($M = 0.42, SD = 0.12$), $p < .001$, and *Patient-centred* ($M = 0.57, SD = 0.22$), $p < .001$, groups of preferred communication style. Post hoc analyses also indicated that the average discrepancy was significantly lower for the *Socialiser* communication style ($M = 0.42, SD = 0.12$), than

the discrepancy for the *Consumerism* ($M = 0.64$, $SD = 0.22$), $p = .001$, and *Patient-centred* ($M = 0.57$, $SD = 0.22$), $p = .009$ groups of preferred communication style.

Alliance scale

Relationship between alliance and health communication behaviour. The relationship between communication styles and overall alliance was tested. An ANOVA showed that the effect of preferred communication style on alliance was non-significant, $F(4, 95) = 2.02$, $p = .098$.

An ANOVA showed the effect of the communication style experienced by participants, on overall alliance, was significant, $F(4, 95) = 2.74$, $p = .033$. However, the Levene's test indicated the assumption of homogeneity of variance was violated, 3.64 , $p = .008$. Consequently, the more robust Welch test of equality of means was utilised, and the effect of the communication style experienced by participants, on alliance, was still significant, $F(4, 26.3) = 3.25$, $p = .027$. Post hoc analyses using the Games-Howell criterion for significance indicated that the overall alliance was significantly greater for the Patient-centred communication style ($M = 0.65$, $SD = 0.02$), than the overall alliance for the Socialiser ($M = 0.49$, $SD = 0.04$), $p = .010$.

The discrepancy between participants' experienced and preferred communication styles were negatively correlated with overall alliance, Pearson's $r(100) = -.236$, $p = .018$.

Discussion and Conclusion

Discussion

This study examined patients' perspective of their GP's communication style, and the relationship of these styles to alliance. Participants sorted communication behaviours by helpfulness, the frequency with which these behaviours were experienced, and completed a measure of alliance. This allowed the generation of

communication styles indicative of participants' experiences and preferences when communicating with their GP, and examination of the discrepancy therein. The results only partially supported the hypotheses. Five communication styles emerged, and these included patient-centred and consumer styles as previously described in the literature were evident. However, a style equivalent to paternalism or high doctor control was not evident, and thus the styles did not span the entire continuum of patient participation. In addition to previously described styles, styles termed *Empathiser*, and *Socialiser*, were characterised. Overall alliance was high, despite a weak correlation between participants' experienced and preferred styles. The hypothesis of no difference in alliance between preferred communication styles was supported, but with regard to experienced communication styles there was a significant difference in alliance between the *Socialiser* and *Patient-centred* styles.

The communication styles characterised were qualitatively different to previous research. This is unsurprising as the styles emerge from a spatial map of sixty-seven behaviours organised by both behavioural themes and dimensionally. The number of behaviours in combination with a methodology driven by the patient perspective likely allowed the resolution of alternative, more nuanced styles. In previous research, communication styles have typically been distinguished in broad strokes by the relative participation and control of doctor and patient, with a spectrum defined by three archetypes: *Doctor-centred* (paternalism), *Mutual* (patient-centred), and *Consumerism* (Roter, 2000; Szasz & Hollender, 1956). Additionally, Biopsychosocial and Psychosocial styles have been defined, both styles are collaborative but they differ in the content of communication; biopsychosocial considers biomedical and psychosocial issues to an equal degree, whereas a psychosocial style is relationship centred and includes in-depth consideration of social and emotional issues (Roter, 2000).

In the current study, *Patient-centred*, *Consumerism*, and *Biopsychosocial* communication styles were evident, and novel *Empathiser*, and *Socialiser* communication styles also emerged. Given the high levels of endorsement of responding to emotions, support and psychosocial hotspots, we considered the possibility that the *Empathiser* style was analogous to *Psychosocial* communication. However, the moderate endorsement of fostering the relationship, and low endorsement of mutual understanding and partnership hotspots is not consistent with collaborative, relationship-centred communication. *Paternalism* was notable by its absence and warrants further discussion.

In previous research Flocke and colleagues (2002) had reasoned variance in the proportions of different communication styles is a consequence of the context of medical practice and the continued evolution of communication styles. This is one potential explanation for the absence of the Paternalism style as 15 years have passed since this study, and cultural differences in the New Zealand practice context may influence the communication styles observed. An additional explanation is the way communication behaviour is conceptualised from the patient perspective within our multidimensional map (Chapter 3). That is, our map did not define behaviour along a dimension of communication control. Rather, doctor control is evident in the lack of endorsement of partnership building and mutual understanding behaviour clusters. Alternatively, this could be an artefact resulting from the biases in the sample discussed in the limitations below. Specifically, the predominantly female participants may be more likely to both experience and report more collaborative communication styles. Furthermore, the large discrepancy between preferred and experienced communication styles discussed below, may provide evidence for significant power differentials

between patient and doctor, which would support the continued use of a paternalistic style of communication.

Together, the novel styles and absence of *Paternalism*, indicate that conceptualising communication on a spectrum of degree of participation or control is inadequate, as previously suggested (Flocke et al., 2002). One alternative is to conceptualise different communication styles as manifestations of different styles of coping. That is, *Socialiser* and *Empathiser* profiles could be explained as seeking social support and emotion-focused coping respectively, while consumerism describes problem-focused coping. *Patient-centred* communication is also problem-focused, but in a collaborative manner which invokes distributed cognition. The biopsychosocial style involves elements of both problem- and emotion-focused coping.

As evaluated with Kruskal's lambda, the match between participants' preferred and experienced communication was weak. Nevertheless, communication preference matching was explored by applying ANOVA of mean hotspot discrepancy distances, as a proxy for mismatch, to preferred and experienced communication profiles. The discrepancy was significantly greater for participants preferring a biopsychosocial style. Perhaps this can be explained as a biopsychosocial profile of communication is the most challenging style for doctors to utilise as it requires aspects of three forms of coping and communication, as previously discussed. That is, in practice it is difficult to cover a diverse range of issues and adopt varying communication and coping styles in a brief consultation. In contrast, the participants who find the socialiser style most helpful experienced the lowest mean discrepancy. This can be understood if we consider the helpful and frequency profile groups as representative of the base rates of patient and doctor behavioural preferences respectively. As the most frequently experienced communication profile (34%), patients are most likely to encounter this more socially

affiliative style. It follows that the 21% of participants who find this behavioural profile most helpful, are also most likely to have their preferences met and experience a low mean discrepancy (Figure 9). Furthermore, if we compare the different communication profiles, 'fostering the relationship' is perceived positively in three of the five profiles.

It was hypothesised there would be no difference in the strength of alliance across styles, as there is no 'one-size-fits-all' optimal style of communication. Rather, variance in alliance would be associated with preference mismatch. There was partial support for this hypothesis, and the validity of alliance as a measure of health communication process. Amongst communication profiles, participants experiencing the Patient-centred style had a significantly higher mean alliance than those experiencing the Socialiser communication style. Comparing these two styles, with the exception of the Empathiser style, they have the largest discrepancies in the experience of the more collaborative behaviours: education and enablement, mutual understanding, and partnership building.

In contrast, there were no significant differences between the mean alliance of the preferred communication styles. However, this can be explained if participants base alliance ratings upon experienced behaviour rather than ideals, thereby supporting the ecological validity of the measure.

When considering all aspects of the alliance data set, we would still suggest caution when utilising alliance as a measure of communication behaviour efficacy. The associations with communication behaviours in this study were limited and weak. Furthermore, negatively skewed alliance distributions, high Cronbach's alpha, and the single factor loading, together indicate limited discriminant validity and potentially a lack of face validity for participants. Our data support a general alliance factor, despite the construct definition implying task, goal, and bond factors (Bordin, 1979). This is

consistent with past research which has also found high correlations between these components of alliance, and led to a proposed general alliance factor (Horvath & Greenberg, 1989; Horvath & Luborsky, 1993; Salvio et al., 1992).

Limitations and future directions. As in the previous research mapping the multi-dimensional space of doctors' behaviour, the generalisability of the results in this study may be limited by gender and positivity biases in the behavioural items sorted. The behaviours sorted in the MOSS were derived from thematic analysis of interviews with fifteen participants about positive experiences with their GP; fourteen of these participants were female. Furthermore, although not as extreme there were similar gender biases in both the sorting data generating the multidimensional map of behaviour in Study 2, upon which the hotspot profiling of the current study is based, and in MOSS sort of the current study. Potential consequences of the gender bias include an over-representation of behaviours describing a clinical relationship with an emphasis on warmth and caring rather than a task focus, but this may also be contingent upon gender concordance between patient and doctor.

In addition, this was a correlational study, and thus the obvious limitation was the inability to assign a causal link between alliance and communication discrepancy. Furthermore, there are cognitive biases inherent in the retrospective self-report data gathered. For example, are participants equating improved or good health, with high levels of alliance, and communication styles which match their preferences? We hope to some extent biases, such as recent consultation and health experience, are countered by the established nature of the relationship with the GP- participants had visited the same GP for an average of 38 years.

The current study is also limited because we did not collect data from the GPs. In future, it would be interesting to repeat this study from the GP perspective, but also

explore the capacity of GPs to vary their communication behaviour flexibly between patients with different communication preferences. It will also be possible to create observational and self-report measures of communication based upon the hotspots. In combination this would allow the measurement of communication discrepancy directly rather than relying upon an alliance measure as a proxy for the discrepancy between patient experience and preferred communication style.

Conclusion

GPs' communication styles continue to evolve. From this study it seems that Paternalism as a communication style amongst GPs has declined significantly, at least from the participant perspective. Furthermore, communication styles with a social and emotional emphasis have emerged to be more prominent. Unfortunately these conclusions are not unequivocal because it can easily be argued the outcomes of the study are simply a reflection of the underlying gender bias of the sample in this and preceding studies. Regardless, for this sample it can still be concluded GPs' communication style matched participant preferences poorly, but this was found to have little relationship with patient-doctor alliance, and there is no 'one-size-fits-all' optimal communication style.

Chapter 5: Overall Discussion and Conclusion

Discussion

Understanding of effective patient-doctor communication is impaired by the lack of theoretical framework of communication, and our limited understanding of patient communication preferences. This thesis explored the communication behaviours patients prefer when consulting with their GPs and their relationship to theories of medical communication in three over-lapping studies. The first study aimed to elicit preferred behaviours through interviews with fifteen participants about positive experiences with their GPs, and these interviews were then subjected to thematic analysis. Interacting themes of Personalisation, Investment, and Management of Emotion were identified in participants' descriptions of their experiences. These results supported the hypothesis that positive experiences would be characterised by highly collaborative relationships, incorporating problem-solving, and patient feelings and perspectives. Furthermore, the interacting themes led to the proposition that it is appropriate to refer to communication behaviours as social-emotional practices.

The findings of Study 1 are consistent with previous research which shows personalised care facilitates engagement in decision-making and tailored treatment (Thorne et al., 2013). Furthermore, care which is tailored, responsive and attentive, has been shown to be interpreted as caring by patients, and personal familiarity and reassurance are consistent with the experience of empathy (Batson et al., 1996; Mazzi et al., 2013; Mazzi et al., 2015). Moreover, the data are consistent with broader theories applied to medical communication. That is, consistent with social reciprocity theory, instrumental behaviour has affective qualities both through familiarity-led tailoring of treatment, and focused problem-solving within an emotion regulation and coping framework. This integration of the social, emotional, and instrumental behaviour is

consistent with the theory of 'shared mind', in which collaborative interactions compensate for cognitive and affective load (Epstein & Street Jr, 2011).

As the participants interviewed were volunteers claiming to have had positive experiences with their GPs, and there was only one male in the sample, legitimate concerns arise about the common themes being a consequence of these underlying biases. Perhaps the data only apply to females who are particularly agreeable patients. As this data was the basis for subsequent studies, any bias is likely to influence the outcome and interpretation of these studies also. Additionally, the participants of all three studies had a female gender bias.

In the second study, thirty participants were asked to organise 90 social-emotional practices emerging from study one, into groups by similarity. These data were utilised to generate a multidimensional map of GPs communication behaviour from the patient perspective. Within this map, behaviours were clustered by the seven different functions they serve in medical consultations. These results partially supported the hypothesis that behaviours would form clusters within the map consistent with the functional themes identified in expert models (de Haes & Bensing, 2009). That is, fostering the relationship, education and enablement, responding to emotions, and information exchange clusters were evident, but other expected clusters were absent. At the dimensional level, the map also showed consistency with expert models, and supported the hypothesis of instrumental and affective dimensions of behaviour. But again, the map deviated from expert models, namely social reciprocity and social interaction theories (Ben-Sira, 1980; Gouldner, 1960; Hall & Roter, 1988), with an additional and unique relational dimension.

Thus, the map has similarities to previous 'expert' models, but also important differences. Specifically, behaviours did not form distinct decision-making or

biomedical information clusters. Instead decision-making and biomedical information exchange behaviours were found within the unique partnership cluster. This is a cluster of behaviours high in 'participatory facilitators' to establish collaboration and protect the relationship between doctor and patient. The other unique clusters of behaviour fulfil a similar function through mutual understanding, and concessions by the doctor. We also see protection of relationship at the dimensional level in the relational dimension. This dimension differentiates behaviour in a socio-pragmatic way in order to protect the doctor-patient relationship while attending to goals which range from social to biomedical.

As in Study 1, the findings from Study 2 are consistent with the theories of social reciprocity and shared mind. That is, there are instrumental and affective dimensions of behaviour, and instrumental behaviours have an affective component. The grouping of instrumental behaviours with participatory facilitation in clusters of behaviour is consistent with collaborative behaviour which integrates social, emotional, and instrumental functions. In a deviation from these theories, a relational dimension was characterised which is not part of models of medical communication (Ben-Sira, 1980; Gouldner, 1960; Hall & Roter, 1988). Although interpersonal theory describes a social affiliation dimension (Kiesler, 1996), upon inspection this is not equivalent to the relational dimension of the current study. Although one pole of the relational dimension is affiliative, the other pole does not describe less affiliative or detached behaviour. Rather, the relational dimension varies along a continuum of social-pragmatic behaviour, from minimising offence to assigning value, to sustain the patient-doctor relationship while accomplishing social or biomedical goals respectively.

Arguably, methodology and research design have played a role in the novel findings in Study 2. For example, an alternative explanation for the way behaviours

cluster in the map is the lack of items that are descriptors of purely biomedical behaviour. However, it must be remembered that the item set was derived from participant experiences as patients, and such items may not be ecologically valid for participants. With regard to the elucidation of a novel third dimension, this could be a positive consequence of the use of multi-dimensional scaling (MDS) rather than factor analysis. Unlike factor analysis, MDS does not specify variates, instead variates are inferred from participants' perceived similarity among items. Described another way, MDS is like inferring the independent variable from the dependent variable. This has the advantage of reducing researcher influence on analyses. In previous research in this area, researchers acknowledge social theories of human interaction, and the affective and instrumental dimensions therein. These dimensions have been utilised as variates, and form the basis of observational coding systems (Roter & Larson, 2002), thereby limiting the ability to identify other dimensions.

In summary, we would argue the data varies from previous expert research in ways which reflect patient perspective. This is highlighted by a prominent gap in the map's coverage of the conceptual space in an octant hypothetically occupied by biomedical behaviours that contain explicit emotion but are indirect or understated to minimise offence. Again, this could be due to poor coverage by the item set, but it is also possible that while such behaviour is possible patients find behaviour with this combination of attributes undesirable. Due to the gender bias in the sample and the items, an alternative interpretation of the data is possible. That is, the study generated a multi-dimensional map of the female interpretation of GP communication behaviour.

In the third study, 100 participants were asked to sort 67 social-emotional practices by preference, from 'Very helpful' to 'Not helpful', and frequency of experience with their GP, from 'Always or very often seen' to 'Rarely or never seen'.

Accompanying these sorts, participants also rated their GPs on seven alliance items. These data were then utilised to generate social-emotional practice styles, that is, patterns of communication behaviour, by either participant experience or preference. Subsequently, analyses explored the degree to which participant social-emotional style preferences matched their experience, and the relationship of this discrepancy to patient-doctor alliance. The results only partially supported the three hypotheses. Firstly, it was hypothesised that the practice styles would span a continuum of patient participation and control. Although high patient control and shared control were evident in the Consumerism and Patient-centred styles respectively, a style synonymous with low patient control such as Paternalism was absent. In addition, novel Empathiser and Socialiser practice styles were characterised. The second hypothesis was supported as there was a negative correlation between alliance and the degree of discrepancy between participants' social-emotional practice preferences and their experiences. Finally, the hypothesised absence of a significant difference in alliance across social-emotional practice styles was only partially supported. That is, there were no significant differences in alliance across preferred practice styles, but when comparing experienced practice styles there was a significant difference in alliance. Participants experiencing the patient-centred style had significantly greater alliance than participants experiencing the socialiser style.

The characterisation of the consumerism and patient-centred styles, representing high patient control and shared control respectively, is consistent with previous theory and research. Roter and colleagues (2000; 1997) have shown practice styles falling on a continuum of degree of patient versus doctor control, which can be differentiated by an index of verbal dominance. However, the absence of paternalism or high doctor control style is inconsistent with past research. Again, inadequate coverage of the conceptual

space by the item set and multi-dimensional map could have contributed to this finding. That is, doctor-control is arguably indexed by the expression of expertise in biomedical behaviours that are under-represented in the item set. Furthermore, the map did not differentiate behaviours along a dimension of control. The counterpoint is that such items represent a simplistic definition of control which focuses on content without considering process. Control and participation are still represented in the relative endorsement of the behaviours in the partnership hotspot. Thus, participants preferring the consumerism style do not endorse these behaviours to indicate there is a lack of mutual participation and control is not shared. Although a lack of endorsement does not indicate which party controls the interaction, the positive endorsement of the concession hotspot indicates participants preferring the consumerism style desire a high level of accountability that is not consistent with paternalism. Overall, this highlights another important conclusion: it is simplistic to distinguish practice styles on the basis of control alone.

The absence of paternalism could be a consequence of changing practice styles, and the practice context as previously suggested in past research (Flocke et al., 2002). The practice context explanation is consistent with research differentiating medical specialities by the personality traits of doctors choosing a given speciality. This research broadly differentiates between person-oriented and technique-oriented specialities. Person-oriented specialities being oriented to the whole patient, whereas technique-oriented specialities focus on particular areas of the body and special technical skills (Yufit, Pollock, & Wasserman, 1969). Examples of person-oriented specialities include family practice and psychiatry, whereas surgery and anaesthesiology are examples of technique-oriented specialities (Borges & Gibson, 2005; Lieu, Schroeder, & Altman, 1989; Wasserman, Yufit, & Pollock, 1969). Borges and colleagues (2005), found that

relative to technique-oriented specialities, doctors in person-oriented specialities were higher in the traits of agreeableness, abasement, nurturance, and sentience. Respectively these traits are associated with empathy and cooperation, humility and deference, caring and support, sensitivity and openness to experience (Borges & Gibson, 2005). Such traits do not seem to be compatible with controlling interpersonal relationships.

Previous alliance research in the medical context has considered relationships between alliance and health outcomes, rather than practice styles (Fuertes et al., 2017). Thus, our findings are novel and difficult to compare to past research. However, comparisons can still be made from a broader theoretical perspective. Although not equivalent to medical practice styles, alliance has shown an association with outcomes across a range of psychotherapy treatment paradigms, and medical contexts (Wampold, 2010). Thus, the finding of no significant relationship to a range of medical practice styles is unsurprising. Furthermore, observing similar levels of alliance across a range of practice styles is theoretically consistent because the alliance construct is comprised of general components of a therapeutic interaction, namely: relationship, and agreement on goals and approach to treatment. This raises the question, what type of variance is alliance sensitive too? Perhaps the key aspect of the construct definition is agreement. Hence the hypothesis, alliance will be negatively related to the discrepancy between participants' preferred and experienced practice style. Although weak, this correlation was evident.

There was one instance in which there was a significant difference in alliance between practice styles, participants experiencing the patient-centred style had significantly greater alliance than those experiencing the socialiser style. However, this potentially validates the alliance construct as these styles have a large difference in the endorsement of the education and enablement, mutual understanding and partnership

building hotspots. These hotspots are associated with collaborative behaviours at the core of the alliance construct (Hatcher et al., 1995; Hatcher & Barends, 1996).

There were two significant findings to emerge from Study 3 that were unpredicted. Firstly, the items of the alliance scale loaded on a single factor, rather than the task, goal, and bond factors implied by the construct definition (Bordin, 1979). Although unpredicted, this finding is consistent with previous research identifying a general alliance factor (Horvath & Greenberg, 1989; Tracey & Kokotovic, 1989). In the research literature this is explained by the inherent overlap of the components of alliance, as parts of a construct describing the degree of mutual collaboration, and the inability of patients to differentiate the three components. This is evident in both factor loading and high correlations between items intended to differentiate the three components of alliance (Bordin, 1979; Horvath & Greenberg, 1989). Additionally, our alliance measure may have been significantly influenced by the generality of the questions and the halo effect. The halo effect is a bias in psychometric responding, observed when raters fail to discriminate conceptually distinct aspects of the ratee's behaviour due to a global impression of behaviour (Saal, Downey, & Lahey, 1980).

The second unpredicted finding was the poor overall match between the way participants prefer doctors to practice and their experiences, as indicated by Kruskal's lambda. This statistic indicates patient preference only predicts their experience 23% of the time. However, caution is needed when interpreting this statistic for two reasons. Firstly, this statistic reduces styles consisting of nine hotspots to a single categorical variable. Consequently, it is not a good indication of the degree of mismatch between styles, or the way in which experiences and preferences are discrepant. Furthermore, some discrepancies may be more tolerable to patients because two styles have similarities in some of the constituent hotspots. For example, the consumerism and

patient-centred styles positively endorse mutual understanding. Secondly expectation violation theory suggests a number of factors influence the response to the violation of communication expectancies, and whether an individual will act to modify the interaction. These include the likeability of the communicator (Burgoon, 1978) and the perception of immediacy in the interaction (Mehrabian, 1966; Mottet, Parker-Raley, Cunningham, Beebe, & Raffeld, 2006).

Limitations and future directions. In addition to the bias in participant characteristics in the current research, both future research and interpretation of the current research must take into consideration the impact of three background variables. Namely, the doctor-patient power differential, the chronicity of the presenting health issues, and the continuity of the doctor patient relationship.

Research suggests the value patients find in continuity is interpersonal in nature. Consequently, desirable characteristics of continuity such as remembering and respecting the patient can be present in relatively short-term relationships. However, future research should explore the relative importance of these two variables, and remembering may be compromised to a greater extent in larger general practices.

Considerations of chronicity of medical presentations overlaps with continuity by potentially being related to length of relationship. In the present research participants primarily discussed chronic issues in the context of long-term relationships, but they also reflected on more acute developments in which respect and knowledge of the patient were evident and valued. In sum, the unique impact of chronicity on communication preferences may not be significant in the general practice setting. Future research could perhaps explore the relative importance of respect and remembering when comparing acute and chronic presentations.

Despite changes to health systems a power differential between patient and doctor still exists. This differential may contribute to the large discrepancy between the communication behaviours patients experience and their preferences, observed in the current research. Initially, this could be explored with correlational research exploring the relationship between this communication discrepancy and demographic variables as proxies for power. For example, are level of education and socioeconomic status correlated with the discrepancy between patients' preferred and experienced communication style? But the impact of these demographic variables upon power differential could also be moderated by a desire to be a 'good patient'.

Conclusion

In conclusion, this thesis explored the patient perspective of, and preferences for, social-emotional practices utilised by GPs. The findings indicate patients desire a personalised approach to care, incorporating patient feelings and perspectives. Such care facilitates GP engagement in collaborative care consistent with patient preferences in the social, emotional, and instrumental domains.

There was sufficient consensus among participants' perspective of GPs' behaviour to generate a multi-dimensional map, indicating all behaviours have instrumental and affective qualities consistent with social-reciprocity theory. In addition, all behaviours have an underlying relational character indicative of the socio-pragmatic work GPs perform, consistent with politeness theory. When participants express preferences for behaviours within the multi-dimensional map, five practice styles emerge. The absence of paternalism is consistent with collaborative socio-pragmatics, and the personality traits of doctors working in a person-oriented speciality. The desire for a personalised collaborative interaction is reflected in the negative correlation between alliance and discrepancy between participants' preferred and experienced practice styles.

Although this research has furthered our understanding of the patient-doctor interaction there are limitations to the utility of the data. Although there is a relationship between patient-doctor alliance and meeting patient preference for GP practice style, this is a weak correlation, and alliance loaded on a single general factor rather than differentiating alliance associated with relational bond, tasks, and approach. Thus, alliance data offers no guidance for improving specific aspects of alliance through targeted modification of specific social-emotional behaviours. Such detailed

understanding would be useful in experimental research design, medical training, and day-to-day practice. However, despite this lack of detail, hotspots and practice styles defined in this research still have utility. If we argue alliance is a proxy for the degree to which patient preferences are met, why not measure these preferences directly? That is, a 9-item measure can be designed to directly gauge a patient's preferences on each of the nine hotspots. Such a measure of social-emotional hotspots could also be completed by GPs to encourage closer matching of practice styles to patient preferences. However, the current research did not collect data from GPs. We do not know if doctors' social-emotional practice styles are stable over time, and between patients. If GPs' practice styles are highly stable they may more appropriately be described as traits, and provide a means to match GPs to patients prior to consultation. Alternatively, 'social-emotional variance' may indicate 'master' GPs with the capacity to flexibly modify practice style to patient needs. Such a GP would not require matching to patient preferences. The question of the stability of GP style needs to be explored further in future research, and has implications for the use of social-emotional measures within practice management systems.

In conclusion, data generated by the current research has questionable underlying validity, making it difficult to interpret and draw conclusions with confidence. This is due to the significant underlying biases of the patient sample, in particular the female gender bias. It is possible the results are a reflection of a sample the greater tendency of females to value relationship, collaboration, and emotional warmth. These concerns aside, this was an ambitious project which demonstrated the utility and potential power of a methodological approach combining multidimensional scaling and hotspot profiling of sort data. This approach can generate a vertically

integrated data set relating dimensional models of behaviour, communication profiles, behavioural themes, and specific behaviours.

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Appendix

Study 1. Ethics Approval



MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA

15 October 2013

FILE

Mr Michael Lane
[REDACTED]

Dear Michael

Re: HEC: Southern B Application – 13/53
What makes a “good” doctor? A patient’s perspective

Thank you for your letter dated 11 October 2013.

On behalf of the Massey University Human Ethics Committee: Southern B I am pleased to advise you that the ethics of your application are now approved. Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Dr Nathan Matthews, Chair
Massey University Human Ethics Committee: Southern B

cc Dr Shane Harvey
School of Psychology
PN320

Dr Don Baken
School of Psychology
PN320

A/Prof Mandy Morgan, HoS
School of Psychology
PN320

Massey University Human Ethics Committee
Accredited by the Health Research Council
Research Ethics Office

Massey University, Private Bag 11222, Palmerston North 4442, New Zealand T +64 6 350 5573 +64 6 350 5575 F +64 6 350 5622
E humanethics@massey.ac.nz animalethics@massey.ac.nz gtc@massey.ac.nz www.massey.ac.nz

Appendix B

Study 1. Letter Requesting Permission to Advertise

Dear Dr _____,

My name is Michael Lane, I am a student in the Doctor of Clinical Psychology program at Massey University, Palmerston North.

As part of my program of study I am conducting research to characterise the communication skills of doctors which patients identify as 'good doctors'.

To this end I am asking your permission to advertise in your medical practice to recruit participants to be interviewed, by placing a flier on the wall (please see the attached flier).

I am also requesting permission for, and your participation in, two additional avenues of research advertising. Firstly, I would like to request that administrative personnel distribute research information to each patient when they arrive at the front desk for their appointment. Secondly, if possible I would like to distribute the research information with 'recall letters'. I will understand if you feel either of these avenues of advertising places undue burden on either patients or staff, and therefore decline these options.

Your identity, and the identity of the medical practice and your patients will remain private and confidential. The data gathered will only appear in an aggregate form, and will not contain any personally identifying information.

I have attached further information and the advertisement which I would like to place in your practice.

I can be contacted at the following email address: M.C.Lane@Massey.ac.nz

Yours Sincerely,

Michael Lane.

Appendix C

Advertising Flier



MASSEY UNIVERSITY
COLLEGE OF HUMANITIES
AND SOCIAL SCIENCES
TE KURA PŪKENGĀ TĀNGATA

Invitation to Participate in Research

What makes a good doctor? A patient's perspective

Do you have a great doctor? Tell us about it.

We are conducting research to determine the behaviours which make a doctor good in the eyes of patients.

Volunteer for a 60 minute interview about your experiences with your doctor and receive a \$20 supermarket voucher.

**To register your interest in participating please contact
Michael Lane
at Massey University, by calling 356 9099 extension 84539**

Appendix D

Press Release: Survey explores patient-doctor partnership

A Massey University researcher is studying how a General Practice doctor's behaviour can lead a patient to develop a sense of trust or feel respected.

Michael Lane, from the School of Psychology, says the purpose of this research is to identify and understand which behaviours help doctors to establish positive interactions with their patients.

This will allow behavioural criteria to be developed, which can be used to evaluate doctors and teach them to be better practitioners.

The doctoral student is recruiting 20 people from the Manawatū to take part in the study. Participants will complete a survey and interviews and share their positive experiences with General Practitioners.

“Positive relationships involve partnerships and sensitivity to the emotions of the patient,” Mr Lane says. “This study will get the perspective of the patient, and ask how do doctors form these sensitive partnerships?”

Traditionally the doctor-patient relationship was paternal, and emotionally detached in nature, but this has changed over time.

“Today patients increasingly expect partnerships with their doctors. Research has shown positive outcomes, for both doctors and patients, from these more empathetic and emotionally considerate partnerships.

“Patient recovery is enhanced through reduced anxiety and enhanced understanding, while doctors derive increased job satisfaction.”

Mr Lane says research in the area of emotion is important for doctors, patients, and medical training.

This study will provide an understanding into how the behaviour of a medical doctor influences the emotions of their patients, and the formation of a relationship which patients consider positive.

For more information or to participate in the study please contact Michael Lane on

██████████ or ██████████.

Appendix E

Study 1. Information Sheet and Consent Form



MASSEY UNIVERSITY
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TE KURA PŪKENGĀ TĀNGATA

What makes a “good” doctor? A patient’s perspective

INFORMATION SHEET

Researcher(s) Introduction

Hi! My name is Michael Lane and I am a student in the Doctor of Clinical Psychology training program at Massey University. I am conducting research to identify and understand which behaviours make doctors good in the eyes of their patients. The purpose of the research is to understand how doctors can interact effectively with their patients.

Project Description and Invitation

Do you have a great doctor? If so I would like to invite you to participate in this research, and tell me what makes him/her great.

Research has shown positive outcomes, with regard to both job satisfaction for doctors and the health of patients, from more empathy and emotional consideration in medical interactions. Thus, research in the area of emotion is important for doctors, patients, and medical training. During clinical consultations doctors engage in behaviour which influences the patient’s emotions. We are interested in identifying how medical doctors have interacted and behaved when patients have had positive experiences.

Some behaviour may be fairly constant and typical of every interaction with a doctor, such as asking permission to examine a patient and being polite. At other times a doctor may vary his or her behaviour, for a number of reasons. These may include the seriousness of the illness, and the appropriateness of behaviour with regard to gender or culture.

Participant Recruitment

I am looking for 15-20 volunteers to participate in my research into the behaviour of doctors. Anybody who has had positive experiences with their doctor is welcome to participate. If you are interested in participating you can contact me at the following number 356-9099, extension 84539, and leave your name and contact details.

This is a low risk study. You will not be asked for specific details of your health, only the details of your doctor's behavior when he is working with you. There are no right or wrong answers.

As compensation for participating in this study you will receive a \$20 supermarket voucher.

Project Procedures

This research involves participation in an interview with the principal researcher during which you will be asked about your experiences with your doctor. What does he/she do which makes him/her a good doctor? The interview will be audio-taped, and last approximately 60 minutes at a time and place that suits you.

I will look at the information you provide to see what behaviours are important to you and what ideas they have in common. This information will then be used to produce a model of the behaviour of doctors.

Confidentiality

Your consent form, your identity, and your interview will be kept confidential. There will be no mechanism for readers of this research to associate coded themes with participants. There will be limited reproduction of participant comments as examples of the themes, but again there will be no mechanism to match quoted speech to specific participants. The audio recordings of the interviews will only be accessible to you, my research supervisors, and I. The information will be stored securely for review purposes for five years, in a locked filing cabinet in Dr Harvey's office, after which the information will be destroyed.

Participant's Rights

This is an invitation to participate. You are under no obligation to accept this invitation.

Should you accept this invitation, you have the following rights:

- The right to decline to answer any particular question
- The right to withdraw from the study at any time
- The right to ask questions about the research at any point during your participation
- The right to confidentiality. Your name will not be used unless your explicit consent is given to the researcher
- The right to a summary of research findings when the research is concluded

Contact Information

Michael Lane

M.C.Lane@Massey.ac.nz

06 356 9099, x 84539

Dr Shane Harvey

S.T.Harvey@Massey.ac.nz

06 356 9099, x 81742

Dr Don Baken

D.M.Baken@Massey.ac.nz

06 356 9099, x 81886

“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 13/53. If you have any concerns about the conduct of the research, please contact Dr Nathan Matthews, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 350 5799 x 80877, email humanethicsouthb@massey.ac.nz.”



MASSEY UNIVERSITY
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 TE KURA PŪKENGA TĀNGATA

What makes a “good” doctor? A patient’s perspective

PARTICIPANT CONSENT FORM

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the interview being sound recorded.

I wish/do not wish to have my recordings returned to me.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature:

Date:

Full Name - printed

“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 13/53. If you have any concerns about the conduct of the research, please contact Dr Nathan Matthews, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 350 5799 x 80877, email humanethicsouthb@massey.ac.nz.”

Appendix F

Interview Schedule

General Introductory Statement

Thank you for agreeing to take part in this research, I really value your contribution, and I am sure you will contribute useful insight.

I am studying the social and emotion behaviour of doctors which have contributed to you having positive experiences with your doctor.

Background Questions

- How old are you?
- Gender?
- Which ethnic group do you identify with?
- Occupation?

Opening Question

- What does your doctor do to be a good doctor?

Part A. Behaviour

Experience/Behaviour

If I went with you to a typical appointment with your doctor, what would I see him doing?....(Let's start from the time you arrive at his practice).

Sensory

- When you walk through his office door what do you see?
- How is he dressed typically?
- What does he say when he meets you?

Opinion/Value

- What do you think about....? (above)
- On a scale of 1-10, with 10 being most important to you, how important are these behaviours?
- What do you like to happen when you go to visit a doctor?

Feeling (emotion)

(often confused with thoughts and opinions, so I won't be asking, "how do you feel?", and I will have to nominate an emotion which means I am creating a presupposition and the question is not truly open)

- To what extent do you feel anxious or afraid when you meet with him?

Knowledge

The next question is not about your experiences. I want to ask about facts.

- What do you expect and know doctors should do when working with patients?

Part B. Emotion

We have just talked a little bit about the way your doctor explains illness and test results. I would like you to think back to a time when test results or a diagnosis may have been distressing to you. Perhaps your doctor gave you some news which required you to change an important area of your life, and this made you sad, fearful, or anxious

Experience/Behaviour

- How does your doctor respond to your emotions?
- What did he ask you?

Sensory

- What did he look like as he responded to your emotions? (What would I see? Body position? Behind a desk? Standing? Sitting?)
- How did he sound as he responded to your emotions? (tone?)

Opinion/Value

- On a scale of 1-10, with 10 being most important to you, how important are these behaviours?
- How would you like a doctor to behave when you are experiencing emotions?

Feeling (emotion)

- To what extent did you feel anxious or afraid when he explained the illness of test results?
- How did your doctor respond to this?

Knowledge

Again, the next question is not about your experiences. I want to ask about facts.

- How do you expect and doctors to respond to patients' emotions?

Appendix G

Study 2. Information Sheet and Consent Form



MASSEY UNIVERSITY
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AND SOCIAL SCIENCES
TE KURA PŪKENGĀ TĀNGATA

What makes a “good” doctor? A patient’s perspective

INFORMATION SHEET

Researcher(s) Introduction

Hi! My name is Michael Lane and I am a student in the Doctor of Clinical Psychology training program at Massey University. I am conducting research to identify and understand which behaviours make doctors good in the eyes of their patients. The purpose of the research is to understand how doctors can interact effectively with their patients. We can then use the findings to evaluate doctors and teach them to be better practitioners.

Background Information

Today patients increasingly expect partnerships with their doctors, as opposed to the traditional emotionally-detached stance of the doctor. Research has shown positive outcomes, for both doctors and patients, from more empathetic and emotionally considerate partnerships. Patient recovery is enhanced through reduced anxiety and enhanced understanding, while doctors derive increased job satisfaction. Thus, research in the area of emotion is important for doctors, patients, and medical training. We are interested in understanding how the behaviour of a medical doctor influences the emotions of their patients. During clinical consultations doctors engage in behaviour which influences the patient’s emotions. Sometimes this involves explicit discussion of emotion, but often one or several actions by a doctor will, for example, lead a patient to develop a sense of trust or feel respected.

Some behaviour may be fairly constant and typical of every interaction with a doctor, such as asking permission to examine a patient and being polite. Other behaviours are more variable, for a number of reasons. These may include the doctor’s personality, the seriousness of the illness, and the appropriateness of a behaviour with regard to gender or culture.

The Task

Accompanying this introductory letter is a group of cards. Each card describes a behaviour which may or may not be observed in your experiences with medical doctors. In this exercise, we would like you to sort the cards into groups following the instructions on the accompanying instruction sheet. The task will take approximately 90 minutes. We will then use the groups you create, and the groups created by others, to produce a model of emotionally-relevant behaviour by doctors in general. In future, we hope to use this model to determine profiles of emotion-relevant behaviour for different doctors, and then attempt to demonstrate a relationship between patient satisfaction and different profiles of behaviour.

As compensation for participating in this study you will receive a \$20 supermarket voucher.

Confidentiality

Your consent form and your responses in the grouping exercise will be kept confidential. This information will only be accessible to you, Dr Harvey, Dr Baken, and I. The information will be stored securely for review purposes for five years, in a locked filing cabinet in Dr Harvey's office, after which the information will be destroyed.

Your Rights

This is an invitation to participate, you are under no obligation to accept this invitation. Should you accept this invitation, you have the following rights:

- The right to ask questions about the research at any point during your participation
- The right to withdraw from the study at any time
- The right to confidentiality. Your name will not be used unless your explicit consent is given to the researcher
- The right to a summary of research findings when the research is concluded

Contact Information

Michael Lane

Michael.Lane@Massey.ac.nz

06 356 9099, x 84539

Dr Don Baken

S.T.Harvey@Massey.ac.nz

06 356 9099, x 81742

Dr Shane Harvey

D.M.Baken@Massey.ac.nz

06 356 9099, x 2137

"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O'Neill, Director, Research Ethics, telephone 06 350 5249, email humanethics@massey.ac.nz".



MASSEY UNIVERSITY
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 AND SOCIAL SCIENCES
 TE KURA PŪKENGĀ TĀNGATA

What makes a “good” doctor? A patient’s perspective

Participant Consent Form

I have read the Information Sheet and feel that the details of the study have been adequately explained. I understand that I may ask further questions at any time.

- I agree to participate in this study under the conditions specified
- Yes, I would like to receive a summary of the research findings

Signature:

Date:

.....

Full Name - printed

.....

“This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University’s Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O’Neill, Director, Research Ethics, telephone 06 350 5249, email humanethics@massey.ac.nz”.

Appendix H

GOPA Items

1. Holds the door	46. Asks how I'm coping
2. Carefully investigates my symptoms	47. Apologises if late
3. Uses language I can understand	48. Allows me to voice my opinion
4. Asks how I feel	49. Has a relaxed posture
5. Gets to the point	50. Continues listening when I am emotional
6. Communicates in a caring tone of voice	51. Makes regular eye contact
7. Asks what I know about the illness	52. Accommodates my beliefs in his practice
8. Explains symptoms	53. Discusses the issue in relation to my history

9. Bases questions on my responses	54. Leans forward while talking
10. Asks about my life	55. Says when he/she's impressed by my progress
11. Checks his understanding	56. Asks if I need time to think
12. Asks permission to examine me	57. Explains what he/she is doing
13. Shows emotion	58. Allows time for me to speak
14. Acknowledges mistakes and apologises	59. Asks how much information I would like
15. Is decisive	60. Nods in acknowledgement
16. Expresses disappointment in the outcome	61. Says my emotions are understandable in the circumstances
17. Engages in social chat	62. Uses a friendly greeting

18. Desk is to one side	63. Asks how he/she can help
19. Smiles	64. Wishes me the best with the treatment
20. Admits withholding information to reduce my worry	65. Acknowledges my frustration
21. Talks to me about how to manage difficult outcomes	66. My emotions are reflected in the doctor's expression
22. Is still while I talk	67. Offers further tests
23. Asks about my treatment expectations	68. Chair is the same height as mine
24. Asks if I have further questions	69. Shares decision making
25. Follows-up test results promptly	70. Directs me when needed
26. Asks what I would like to do	71. Dresses professionally

27. Expresses confidence in illness management	72. Notices changes over time
28. Is willing to read information I bring	73. Is humorous
29. Asks what test results mean for me	74. Acknowledges gaps in his knowledge
30. Serious results are given face-to-face	75. Uses my first name
31. Chases up other professionals	76. Spends extra time talking when the need arises
32. Talks about emotions he/she observes in me	77. Checks my understanding
33. Asks about the influence of my community	78. Says how he/she would feel in my situation
34. Considers his responses	79. Clarifies what I say
35. Assures me we'll figure it out	80. Asks me what I think is the most important thing to talk about

36. Gives me options	81. Cites his/her past experience
37. Discusses my decision making preferences	82. Faces me while talking
38. Says “mmmm”	83. Comforts me with physical contact
39. My emotion is reflected in the doctor's tone	84. Asks about my goals
40. Sits near me	85. Summarises
41. Gives a positive perspective	86. Says he/she will consult other professionals
42. Asks about my family	87. Asked my feeling about an outcome
43. Warns me when he/she has serious news	88. Involves me in planning
44. Compliments me on my efforts	89. Expresses concern over my potential distress

45. Admits a situation is difficult	90. Discusses test results
-------------------------------------	----------------------------

Appendix I

GOPA Guidelines

Guidelines for Recording Your Responses

These guidelines have been prepared to assist people engage in and complete all sections of the four sorting tasks requested. We use the acronym, **GOPA** to describe the four phases involved: **G** = Group, **O** = Opposite, **P** = Partition, **A** = Add. The entire exercise will take about 1 hour (it may be helpful to spend about 5 minutes at the start working through these guidelines).

What you should have in front of you:

Before starting you will need the following 'equipment':

- a deck of item cards, please shuffle them;
- a recording page for entering item numbers onto (see 'GOPA Response Page');
- a pencil or pen, and;
- these notes, which expand upon the recording page's summary comments.

Procedure:

First, look over the recording page to note the location of each phase and the response spaces provided (Phase 1 is at top left, phase 2 at the top of the second page, phase 3 at top right alongside phase 1 and phase 4 partway down page two). Read over the summary notes for each phase on the recording page to get a 'feel' for what's coming. The order of the phases is a guideline only.

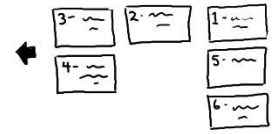
G- Phase One - Grouping:

Find a flat surface space of about 1m² (e.g. a largish desk top, or the floor). Take the shuffled card-item deck. Read the top card's statement and place it at top left of your working space so you can still see what it says. Then read the second item and make a decision. Does that second item belong in the same general group as the first one, or should it be placed into a new group? **A 'group' consists of those items you think are in some way similar, belonging to the same general family.** If you think it belongs within the same family group then place the second item immediately below the first one (families run down, as columns). However, if you think the second item is unrelated and would belong in a new family, then start a new column by placing that item beside the first one, to the right. Any reasonable type of relationship will be accepted when deciding about a family's membership. You only need to justify family group relationship criteria to yourself.

Now, go ahead and place all the items into various family groups. As soon as you set out a few items this will begin to make sense. Try to make up between 14 and 28 families but with no more than 8 members in each one. A family can have just one item member if there are no apparent relations.

When you are satisfied these family groups make sense (and you may have to move the items around to firm these up) then print the numbers from each family onto the lines provided on the response page. **For this task, each family's item numbers will be printed onto a separate row.** An example has been provided on the response form of a 6-item family; or see the picture to the right to show an example of three families translated from a card sort onto the response page (Do, please, print neatly.)

G O P A F



Phase one

O - Phase two - opposites:

This time look over the whole families and form in your mind a common theme for each one, what makes the items in each family stick together. Remember, for this phase we are focusing upon whole families and not separate items. When scanning these families look for those that seem to be 'opposites', at the extreme from each other. We find that in any item set there are anywhere from 2 to 6 or more sets of quite different families. **When you find a pair of opposites, enter onto the response form spaces provided any one item number selected from each of those two groups.** (The reason for entering only one item number is straightforward, because the whole families have been described in phase one above then any one item number from a single family group will stand for the whole group.)

There is space to provide for up to six sets of family opposites. Try to find at least two. If you find more, add these underneath.

P - Phase three - partitioning (sub-dividing):

Go back to those groups formed in phase one, above. **For any family with 3 or more members it may be possible to find sub-groups within each whole family** (Families with only 1 or 2 members do not have subgroups). Do keep families intact; **do not** move individual items between families.

One way to do this is to rearrange items within each family so subgroup members are kept together, leaving a small gap between them. In some cases there will be no subgroups because a family group is made up of very similar items. However, in most cases there will be some slight differences and it's these differences we want to know about.

When sub-family groups have been formed use brackets on the recording form to show what they are. **For all families that do have sub-groups, rewrite all item numbers on exactly the same line as in phase one but this time use brackets to indicate how sub-groups are formed.** Our example on the response form shows the use of brackets.

A - Phase four - Adding:

This time we are asking you to merge similar family groups together.

Go right back to the original family groups created in phase one, above. Survey these whole families again (as was done in phase 2). This time though the idea

is to join families up, one pair at a time. Find the two most similar families. Then physically shift the families together so it is clear which item-families have been joined up. Now repeat this with the remaining families. It is possible to add onto a previous merger, but once a merger has occurred it cannot be undone. Several families will not join up because they are so different from each another. In general though at least 3 family mergers may be found.

For recording purposes, as each merger occurs indicate on the response page spaces provided a single pair of item numbers, selecting any one item number to represent each family being joined together.

Finally, please indicate using the tick-boxes provided, your **age** as well as your **gender, ethnicity, occupation** and **whether you would be happy for your data to be included in our research.**

Thank you for your time ☺

--	--

Phase 2 – Opposites

Look over the phase 1 groups to find which are the most different. Record these 'opposites' by entering any one item number from each group on the spaces below. Try to find at least two sets of opposites. Use your own judgment. Leave the item groups intact, do NOT move items around.

Opposite set 1: ____, ____# Opposite set 2: ____, ____# Opposite set 3: ____, ____#

Opposite set 4: ____, ____# Opposite set 5: ____, ____# Opposite set 6: ____, ____#

Phase 4 – Adding

This time join together the most similar groups in phase 1. Physically place these similar Phase 1 item groups together and enter any one item number from each joining group onto the spaces below. Only some groups will join up, many will not. Try to make at least two merges.

Merger a) ____, ____# Merger b) ____, ____# Merger c) _____, _____#

Merger d) ____, ____# Merger e) ____, ____# Merger f) _____, _____#

Age:

Are you:

Female

Male

Ethnicity _____

Occupation _____

Please tick the box provided if you would like your response data to be included in our research

Thank you for your time ☺

Appendix K

Study 3. Information Sheet and Consent Form



MASSEY UNIVERSITY
COLLEGE OF HUMANITIES
AND SOCIAL SCIENCES
TE KURA PŪKENGĀ TĀNGATA

What makes a “good” doctor? A patient’s perspective

INFORMATION SHEET

Researcher(s) Introduction

Hi! My name is Michael Lane and I am a student in the Doctor of Clinical Psychology training program at Massey University. I am conducting research to identify and understand which behaviours make doctors good in the eyes of their patients. The purpose of the research is to understand how doctors can interact effectively with their patients. We can then use the findings to evaluate doctors and teach them to be better practitioners.

Background Information

Today patients increasingly expect partnerships with their doctors, as opposed to the traditional emotionally-detached stance of the doctor. Research has shown positive outcomes, for both doctors and patients, from more empathetic and emotionally considerate partnerships. Patient recovery is enhanced through reduced anxiety and enhanced understanding, while doctors derive increased job satisfaction. Thus, research in the area of emotion is important for doctors, patients, and medical training. We are interested in understanding how the behaviour of a medical doctor influences the emotions of their patients. During clinical consultations doctors engage in behaviour which influences the patient’s emotions. Sometimes this involves explicit discussion of emotion, but often one or several actions by a doctor will, for example, lead a patient to develop a sense of trust or feel respected.

Some behaviour may be fairly constant and typical of every interaction with a doctor, such as asking permission to examine a patient and being polite. Other behaviours are more variable, for a number of reasons. These may include the doctor’s personality, the seriousness of the illness, and the appropriateness of a behaviour with regard to gender or culture.

The Task

Accompanying this introductory letter is a group of cards. Each card describes a behaviour which may or may not be observed in your experiences with medical doctors. In this exercise, we would like you start by providing your demographic information, and completing the “Experience Rating Scale” with regard to your experiences with your GP. Then, we would like you to sort two sets of cards into groups by following the instructions on the accompanying instruction sheet. Sorting each set of cards will take approximately 20 minutes. The entire task will take approximately 45 minutes.

We will then use the groups you create, and the groups created by others, to generate profiles which summarise the doctor-behaviours seen by patients during consultations. In future, we hope to use profiles of emotion-relevant behaviour for different doctors to demonstrate a relationship between patient outcomes and different profiles of behaviour.

As compensation for participating in this study you will receive a \$20 supermarket voucher.

Confidentiality

Your consent form and your responses in the grouping exercise will be kept confidential. This information will only be accessible to you, Dr Harvey, Dr Baken, and I. The information will be stored securely for review purposes for five years, in a locked filing cabinet in Dr Harvey’s office, after which the information will be destroyed.

Your Rights

This is an invitation to participate, you are under no obligation to accept this invitation. Should you accept this invitation, you have the following rights:

- The right to ask questions about the research at any point during your participation
- The right to withdraw from the study at any time

- The right to confidentiality. Your name will not be used unless your explicit consent is given to the researcher
- The right to a summary of research findings when the research is concluded

Contact Information

Michael Lane

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Dr Don Baken

S.T.Harvey@Massey.ac.nz

06 356 9099, x 81742

Dr Shane Harvey

D.M.Baken@Massey.ac.nz

06 356 9099, x 2137

"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director (Research Ethics), telephone 06 356 9099, extn 86015, email humanethics@massey.ac.nz".



MASSEY UNIVERSITY
 COLLEGE OF HUMANITIES
 AND SOCIAL SCIENCES
 TE KURA PŪKENGA TANGATA

What makes a “good” doctor? A patient’s perspective

Participant Consent Form

I have read the Information Sheet and feel that the details of the study have been adequately explained. I understand that I may ask further questions at any time.

- I agree to participate in this study under the conditions specified
- Yes, I would like to receive a summary of the research findings

Signature:

Date:

.....

Full Name - printed

.....

“This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University’s Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director (Research Ethics), telephone 06 356 9099, extn 86015, email humanethics@massey.ac.nz”.

Appendix L

Health Alliance Scale



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 AND SOCIAL SCIENCES
 TE KURA PŪKENGĀ TĀNGATA

Demographic Information

Date: _____

Name: _____

Age: _____

Sex: M/F _____

Occupation: _____

Ethnicity: _____

How long have you been visiting your doctor?

In a typical year, how many times do you visit your doctor?

To answer the following questions please make a line through the dashed line at a position that best describes your experience:

For example:



Highly unlikely



Highly likely

>PTO<

Please rate your experience with your GP by making a line through the dashed line at a position that best describes your experience

The doctor does *not* understand me



The doctor does understand me

The doctor and I do *not* get along



The doctor and I get along

I am *not* committed to working with my doctor on improving my health



I am committed to working with my doctor on improving my health

The doctor and I do *not* have a shared focus



The doctor and I have a shared focus

The doctor does *not* respect my choices



The doctor respects my choices

I do *not* like my doctor's approach



I like my doctor's approach

I do *not* have a good working relationship with my doctor



I have a good working relationship with my doctor

I am highly *unlikely* to take my doctor's advice



I am highly *likely* to take my doctor's advice

Appendix M

MOSS Items

1. Holds the door	39. My emotion is reflected in the doctor's tone
2. Carefully investigates my symptoms	40. Sits near me
3. Uses language I can understand	43. Warns me when he/she has serious news
4. Asks how I feel	44. Compliments me on my efforts
5. Gets to the point	45. Admits a situation is difficult
6. Communicates in a caring tone of voice	46. Asks how I'm coping
7. Asks what I know about the illness	47. Apologises if late
8. Explains symptoms	48. Allows me to voice my opinion

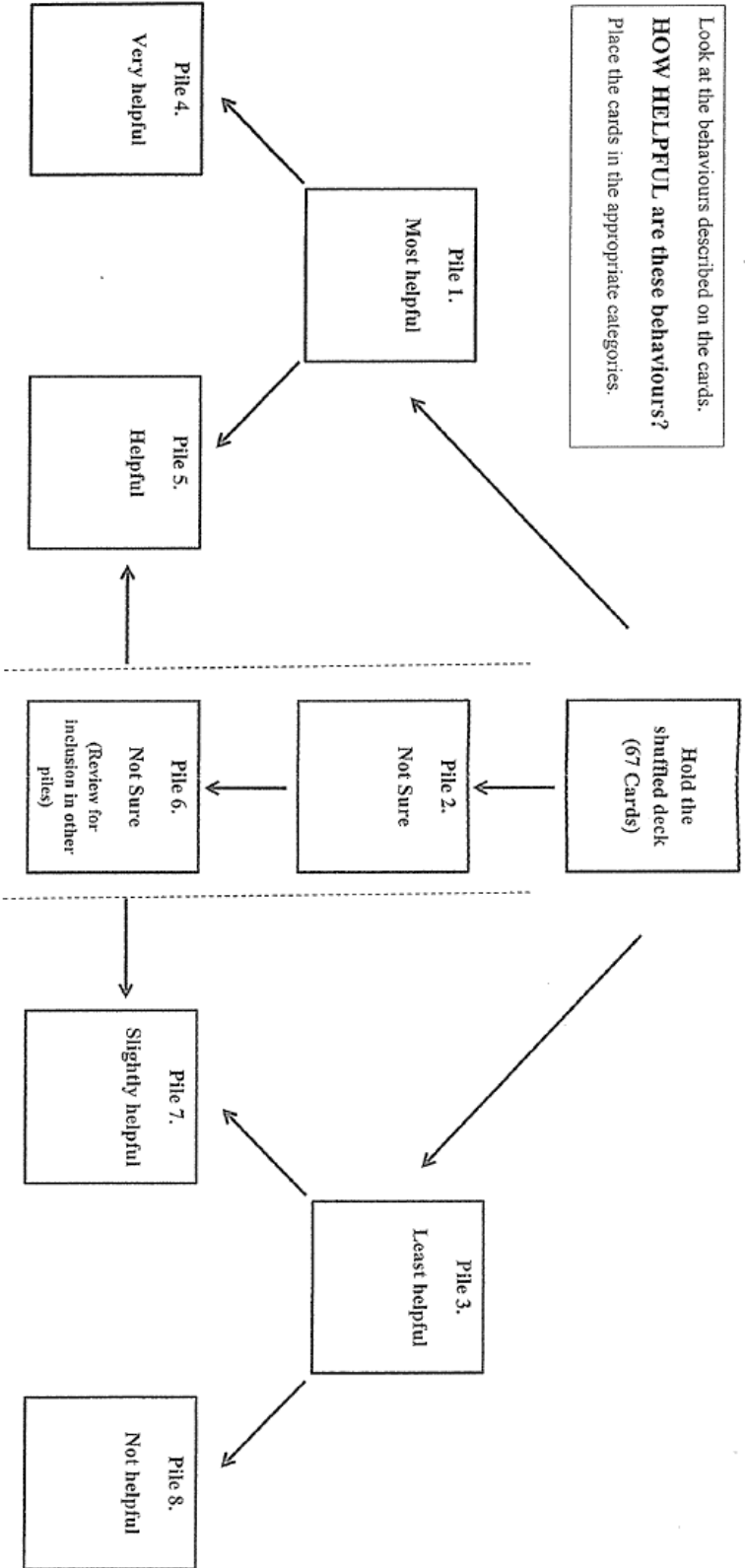
9. Bases questions on my responses	49. Has a relaxed posture
10. Asks about my life	50. Continues listening when I am emotional
11. Checks his/her understanding	51. Makes regular eye contact
12. Asks permission to examine me	52. Accommodates my beliefs in his/her practice
13. Shows emotion	53. Discusses the issue in relation to my history
14. Acknowledges mistakes and apologises	56. Asks if I need time to think
16. Expresses disappointment in the outcome	61. Says my emotions are understandable in the circumstances
17. Engages in social chat	63. Asks how he/she can help
19. Smiles	64. Wishes me the best with the treatment

20. Admits withholding information to reduce my worry	66. My emotions are reflected in the doctor's expression
21. Talks to me about how to manage difficult outcomes	70. Directs me when needed
22. Is still while I talk	71. Dresses professionally
23. Asks about my treatment expectations	72. Notices changes over time
24. Asks if I have further questions	73. Is humorous
25. Follows-up test results promptly	74. Acknowledges gaps in his/her knowledge
27. Expresses confidence in illness management	75. Uses my first name
28. Is willing to read information I bring	76. Spends extra time talking when the need arises
29. Asks what test results mean for me	77. Checks my understanding

30. Serious results are given face-to-face	78. Says how he/she would feel in my situation
31. Chases up other professionals	80. Asks me what I think is the most important thing to talk about
32. Talks about emotions he/she observes in me	84. Asks about my goals
33. Asks about the influence of my community	85. Summarises
34. Considers his/her responses	89. Expresses concern over my potential distress
35. Assures me we'll figure it out	90. Discusses test results
36. Gives me options	
37. Discusses my decision making preferences	
38. Says "mmm"	

Appendix N

MOSS Guidelines- Sort by Helpfulness



Look at the behaviours described on the cards.
HOW HELPFUL are these behaviours?
Place the cards in the appropriate categories.

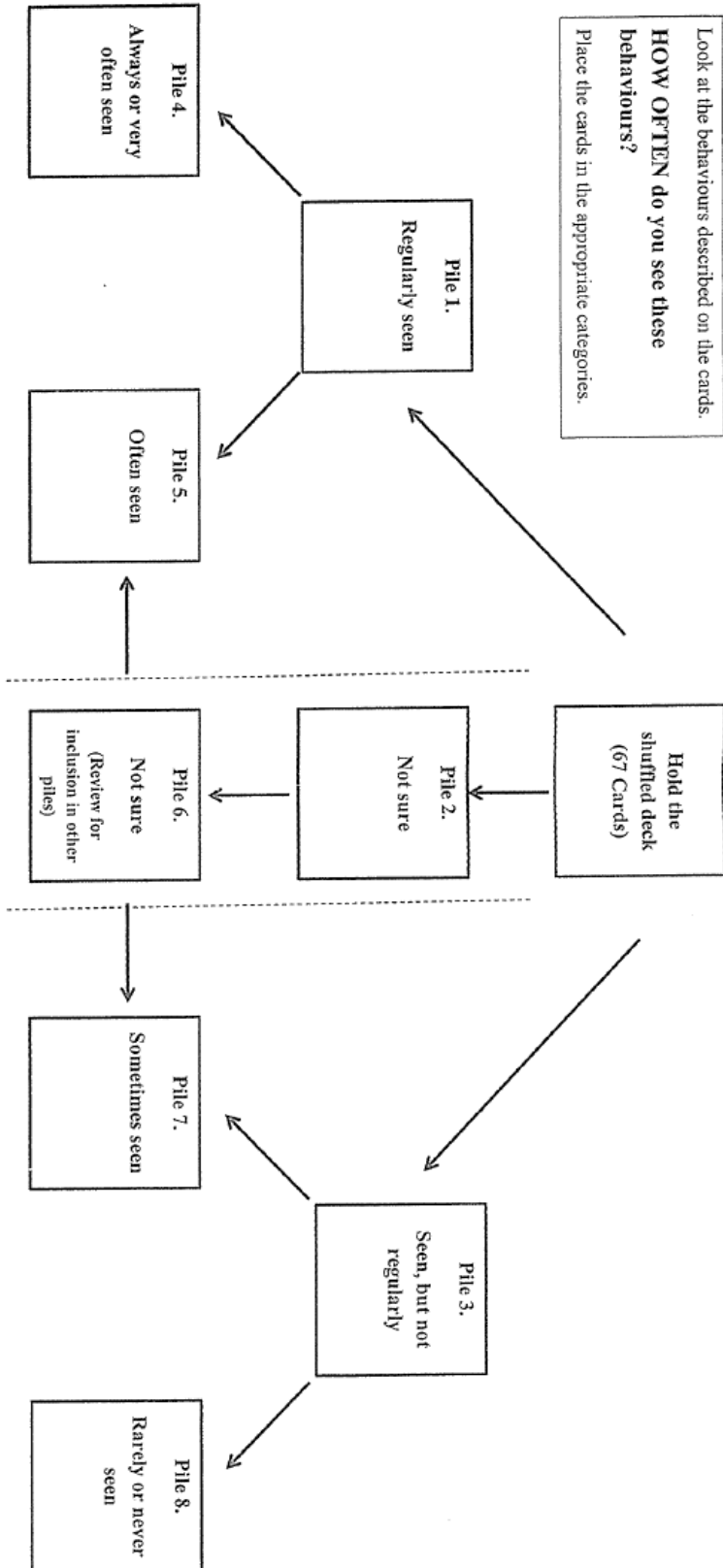
Note: When making the first 3 piles put at least 30 cards in piles 1 and 3. Piles 4-8 may have an unequal number of cards in them. Try to have 7 cards or fewer in Pile 6.

These numbers are guidelines, not strict rules. Do not force cards into piles that seem wrong to you, just to satisfy these guidelines. Cards may be shifted between piles at any time.

If your doctor has never displayed these behaviours, still try to imagine how helpful they would be.

Appendix O

MOSS Guidelines- Sort by Frequency of Experience



Note: When making the first 3 piles put at least 30 cards in piles 1 and 3. Piles (Piles 4-8) may have an unequal number of cards in them. Try to have 7 cards or fewer in Pile 6.

These numbers are guidelines, not strict rules. Do not force cards into piles that seem wrong to you, just to satisfy these guidelines. Cards may be shifted between piles at any time.

Appendix P

Statements of Contribution

DRC 16



MASSEY UNIVERSITY
GRADUATE RESEARCH SCHOOL

STATEMENT OF CONTRIBUTION TO DOCTORAL THESIS CONTAINING PUBLICATIONS

(To appear at the end of each thesis chapter/section/appendix submitted as an article/paper or collected as an appendix at the end of the thesis)

We, the candidate and the candidate's Principal Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of Candidate: Michael Lane

Name/Title of Principal Supervisor: Shane Harvey

Name of Published Research Output and full reference:

Thematic Analysis of the Patient Perspective of General Practitioner Social-Emotional Communication, Lane, M. C., Baken, D.M., Harvey, S. T., Bimler, D. (Manuscript in preparation for Australian Journal of Psychology)

In which Chapter is the Published Work: Chapter 1

Please indicate either:

- The percentage of the Published Work that was contributed by the candidate:
and / or
- Describe the contribution that the candidate has made to the Published Work:
The candidate designed the study, recruited the participants, collected the data, performed the analysis, and wrote the paper.

Michael Lane Digitally signed by Michael Lane
Date: 2017.11.27 13:54:04
+13'00'

Candidate's Signature

27/11/17

Date

Shane Harvey Digitally signed by Shane Harvey
DN: cn=Shane Harvey, o=Massey University,
ou=Psychology Clinic,
email=s.l.harvey@massey.ac.nz, o=NZ
Date: 2017.11.24 14:46:56 +13'00'

Principal Supervisor's signature

24/11/17

Date



MASSEY UNIVERSITY
GRADUATE RESEARCH SCHOOL

**STATEMENT OF CONTRIBUTION
TO DOCTORAL THESIS CONTAINING PUBLICATIONS**

(To appear at the end of each thesis chapter/section/appendix submitted as an article/paper or collected as an appendix at the end of the thesis)

We, the candidate and the candidate's Principal Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of Candidate: Michael Lane

Name/Title of Principal Supervisor: Shane Harvey

Name of Published Research Output and full reference:

Mapping the Social-Emotional Practices of General Practitioners: A Patients' Perspective, Lane, M.C., Harvey, S. T., Bimler, D, Baken, D.M. (Manuscript in preparation for Patient Education and Counseling).

In which Chapter is the Published Work: Chapter 2

Please indicate either:

- The percentage of the Published Work that was contributed by the candidate:
and / or

- Describe the contribution that the candidate has made to the Published Work:

The candidate designed the study, recruited the participants, collected the data, performed the analysis, and wrote the paper.

Michael Lane
Digitally signed by Michael Lane
Date: 2017.11.27 13:55:38
+13'00'

Candidate's Signature

27/11/17

Date

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ou=Psychology Clinic,
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Principal Supervisor's signature

24/11/17

Date



MASSEY UNIVERSITY
GRADUATE RESEARCH SCHOOL

**STATEMENT OF CONTRIBUTION
TO DOCTORAL THESIS CONTAINING PUBLICATIONS**

(To appear at the end of each thesis chapter/section/appendix submitted as an article/paper or collected as an appendix at the end of the thesis)

We, the candidate and the candidate's Principal Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated below in the *Statement of Originality*.

Name of Candidate: Michael Lane

Name/Title of Principal Supervisor: Shane Harvey

Name of Published Research Output and full reference:

Social-Emotional Practice Styles of General Practitioners: A Patients' Perspective, Lane M.C., Bimler, D, Baken, D.M., Harvey, S. T. (Manuscript in preparation for Social Science and Medicine).

In which Chapter is the Published Work: Chapter 3

Please indicate either:

- The percentage of the Published Work that was contributed by the candidate:
and / or
- Describe the contribution that the candidate has made to the Published Work:
The candidate designed the study, recruited the participants, collected the data, performed the analysis, and wrote the paper.

Michael Lane Digitally signed by Michael Lane
Date: 2017.11.27 13:57:20
+13'00'

Candidate's Signature

27/11/17

Date

Shane Harvey Digitally signed by Shane Harvey
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ou=Psychology Clinic,
email=s.l.harvey@massey.ac.nz, c=NZ
Date: 2017.11.24 14:48:07 +13'00'

Principal Supervisor's signature

24/11/17

Date

Appendix Q

A Research Case Study of Health Communication

The number of people living with chronic health conditions is increasing with advancements in medical technology and healthcare. Increasingly there is recognition of a duty of care to address the downstream psychological sequelae of medical treatment and health conditions. This is evident in the author's internship placement, a public hospital, which recently began providing psychological consultation for patients in the context of renal and oncological services. In these services, clinical psychology interventions address issues such as quality of life and living with chronic pain, grief, mortality, and readiness to be a living organ donor.

In a specific example of the extension of the clinical psychology role in healthcare, during the internship year the author was asked to work with an adolescent male born with a health condition. This health condition necessitated an organ transplant during infancy, and continues to have consequences impacting pain, diet, quality of life, and ultimately longevity. At presentation to mental health services, this client had missed significant parts of his education, and he was living a withdrawn lifestyle. His lifestyle was resulting in a failure to meet milestones of education, independence, and individuation. Psychological input can never resolve his underlying health condition, and the psychological interventions involved acceptance, motivation, and living in spite of his challenges and discomfort.

Such presentations led the author to consider the nature of the clinical relationship. Working with this patient required empathy, personalised care to identify common ground and build rapport, and engagement with the patient outside the clinical setting. The clinical relationship and the communication therein is the focus of the following research in the context of general medical practice.

Historically there has been an attempt to align psychotherapy with the medical model. This model speaks to the aetiology and mechanisms of change of pathological states. Within this model and identifiable disorder can be explained, for example, by an infection. The explanation of disorder highlights both the mechanisms by which to change this order in the therapeutic means of doing so. The therapeutic intervention is solely responsible for any change observed. This last component of the medical model is referred to as specificity (Wampold, 2010).

The desire to demonstrate specificity for psychotherapy has driven research to identify empirically supported treatments (ESTs). Such research in the medical context typically involves placebo controls. However, because it is not possible to double-blind a treatment within the psychotherapy context, it is not possible to have a treatment control which is structurally equivalent to a placebo (Wampold, 2010). Consequently, alternative research designs were necessitated, and these compared different treatments intended to be therapeutic. Such research has shown that psychotherapy is more effective than no treatment, with an effect size of 0.8. However, when confounding variables are controlled differences between psychotherapy interventions are thought to account for approximately 1% of variance in client change (Wampold, 2015; Wampold et al., 1997) (Robinson, Berman, & Neimeyer, 1990; Wampold, Minami, Baskin, & Callen Tierney, 2002).

Thus, while specificity has driven psychotherapy treatment research, it has become apparent that specific components of treatment are relatively unimportant. Client perspectives are consistent with this data, as they rarely identify specific therapeutic techniques when reflecting upon the helpful aspects of treatment (Levitt et al., 2006). Instead, clients focus on aspects of client-clinician relationship, encouraging research into so-called 'common factors' found in all psychotherapy interventions.

These include elements of the therapeutic relationship such as, collaboration on the goals and tasks of treatment, and empathy. Such elements are missing from placebo controls.

Within the therapeutic relationship, three common factors are thought to be particularly powerful: empathy, goal consensus and collaboration, and alliance. When considering the relationship between empathy and therapy outcome, an effect size of 0.32 has been found (Bohart, Elliot, Greenberg, & Watson, 2002). Research on goal consensus and collaboration finds a positive association with outcomes in 68 and 89% of studies, respectively (Tryon & Winograd, 2002). As the alliance construct includes collaboration on the goals and tasks of therapy, along with the therapeutic bond, it is perhaps unsurprising that alliance has the greatest effect size. With an effect size of 0.45, alliance accounts for approximately half of the effect size of psychotherapy (Horvath & Bedi, 2002).

While psychotherapy research has been driven by the medical model, it may now be time to consider whether psychotherapy research can inform the medical model of communication and doctor-patient relationship.

The Doctor-Patient Relationship

Definitions of the doctor-patient relationship contain criteria which can be considered common factors: agency, or responsibility for setting goals and agendas; values and their exploration; and the role of the doctor. By these criteria Roter (2000) identifies four prototypes for the doctor patient relationship. One of these, Paternalism, or doctor-centred has traditionally been the relationship observed. This type of relationship is characterised by doctor control. The doctor sets the agenda, and chooses goals. Values are assumed, and the doctor assumes the role of a guardian. The content

of conversation is dominated by the biomedical. This is still considered the predominant type of relationship today. Research suggests 33% of communication is Paternal in nature (Roter et al., 1997). With the rise of Consumerism, a patient-centred or Consumerist type of relationship, has emerged. Consumerist relationships are the opposite of Paternal, that is, the patient chooses the agenda and goals, and utilises the doctor as a medical technician. The patient's values remain unexplored (Roter, 2000).

Researchers argue that while Consumerist relationships give patients agency, this may not be in their best interests as doctors are not allowed to fully utilise their expertise. A third type of relationship, Mutuality or Relationship-centred care has subsequently emerged which incorporates client-centred Rogerian principals. These principals are empathy, respect, genuineness, unconditional acceptance, and warmth (Rogers, 1957). Such relationships are characterised by negotiated goals and agendas, and joint exploration of values which allows the doctor to function in a more collaborative role.

Affect in the Medical Context: An Instrumental-Affective Dichotomy?

When comparing relationship styles such as paternalism and relationship-centred, it intuitively follows that the constituent behaviours would be categorised broadly as either Instrumental or Affective at the conceptual level. Research has explored this dichotomy.

De Valck and colleagues (2001) have contributed to this research by exploring the relationship between cure (instrumental) and care-centred (affective) attitudes. This demonstrated cure and care are not poles of a single dimension. Rather, attitudes to care are described by two dimensions: Cure/Instrumental with Biomedical and Biopsychosocial poles, and Care/Affective with Personal detachment and Empathy as

the poles. Although not behavioural research, this is still significant at the conceptual level of a communication framework, as it implies that an affective aspects of care can be developed without compromising the medical-technical aspects of care (De Valck et al., 2001).

Hall and colleagues suggested that medical-technical (Instrumental) behaviour can have socioemotional significance because patients make affective attributions when interpreting such behaviour. While instrumental behaviour could influence affect, there were low correlations between socioemotional and medical-technical behaviour, indicating this relationship is not bidirectional (Hall et al., 1988). By extension, the conclusion was medical-technical behaviour is more important to the quality of patient care than socio-emotional behaviour. However, when the composition of the socioemotional behaviour construct was modified within the interaction analysis system, such that verbal attentiveness and showing concern were included, there were significant correlations between socioemotional and medical-technical behaviour (Bensing & Dronkers, 1992).

Emotion Regulating Impact of Affective Communication in a Medical Consultation

Empathy

The context of the medical consultation is emotionally arousing. Bad news has been shown to increase physiological arousal, and both depressive and anxious feelings. Furthermore, affect is known to influence health indicators such as immune status, wound healing, and pain.

It is also believed that affect influences the instrumental aspects of medical consultations, which in turn could influence health outcomes. It has been found that patients forget 40-80% of the information provided to them (Kessels, 2003). Affective and physiological arousal are thought to explain this poor recall of medical information via a stress response mechanism in which arousal causes attentional narrowing. Indeed, researchers have demonstrated the interaction between communication style, arousal, affect, and instrumental outcomes. Sep and colleagues (2014) have shown increased recall of medical information when doctors used empathic statements in their communication. Such statements included qualities of reassurance and ongoing support. Two examples were, 'But whatever action we do take, and however that develops, we will continue to take good care of you', and 'I completely understand your reluctance'. In another study, researchers found that anxiety amongst patients decreased and positive outcome expectations increased, but only when outcome expectations were communicated in an empathic style with statements such as, 'I understand how you must be feeling' (Verheul et al., 2010).

The aforementioned research implies affective, and in particular empathy, is an important component of effective medical communication. Affect is one aspect of the nature of empathy, other considerations include empathy as cognition, behaviour, and a component of social support (Neumann et al., 2009).

As an affective event, empathy involves the vicarious experience of another individual's emotional state. It can be distinguished from sympathy as disentangled emotional experience in which the observer remains aware of the otherness of the emotions. Thus, empathy requires self-awareness, and identification with the emotional state is only partial. It is important to note that similarity and familiarity an individual is found to enhance empathy (Neumann et al., 2009).

As a cognitive event, empathy allows perspective and role-taking by the observer. It enables an individual to both understand and predict the reactions of another, while also allowing the observer control over responses (Neumann et al., 2009).

It follows that empathy can also be considered a behaviour, and is compared to the concept of interactive competence (Neumann et al., 2009). Interactive competence requires a sensitivity to non-verbal cues of emotion, while also being aware of social norms and rules, and having the ability to respond appropriately against this background. Thus, empathy can be regarded as a competence. In a practical sense this means empathy can be acquired, consciously exercised, measured, and taught. Empathy also overlaps with one domain of Salovey and Mayer's definition of emotional intelligence, the ability to recognise emotions in others (Mayer, DiPaolo, & Salovey, 1990; Schutte et al., 2001).

As empathy involves shared understanding and emotion, it can also be regarded as necessary for the formation of relationships and support networks. In summary, empathy has internal affective and cognitive aspects, which manifest behaviourally in dyads, and also generalise to influence broader social networks.

The Patient Perspective of Positive Interactions with Physicians: A Thematic Analysis

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Abstract

Objective: To explore the behaviours observed by patients' during positive experiences with General Practitioners (GPs), and the ways in which GPs respond to patients' emotions.

Methods: Fifteen patients residing in New Zealand were participated in semi-structured qualitative interviews. Audio recordings of the interviews were transcribed verbatim, and then subjected to an inductive thematic analysis to explore patterns in GPs' behaviour.

Results: The themes identified were personalisation of care, investment in the care of the patient, and emotional reassurance (?). Within personalisation, sub-themes of tone, attentive listening, and contextualisation emerged as contributing factors. While sub-themes of following-up, reassurance of non-abandonment, and being responsive to patient needs were seen to contribute to the patients' sense of the doctors' investment in their care. The theme of emotional reassurance consisted of the three sub-themes, focused problem-solving, empathy, and physical reassurance. The relationship between these themes, and an emotion regulation framework are discussed.

Conclusion: The themes identified interact. Social behaviours set the tone for medical consultations and facilitate medical-technical behaviour by encouraging greater patient self-disclosure. This is foundational for a more collaborative relationship, as GPs

reciprocate by investing in patients. Ongoing support is reassuring for patients, and the GPs familiarity with the patient enhances empathy.

Practice implications: Social behaviour and rapport building should not be neglected in favour of instrumental behaviour, and there are multiple strategies to respond to patient emotion. These strategies may have a regulatory function.

Effective medical communication is believed to have a positive impact on health outcomes. Research has been shown communication to be associated with decreased anxiety and lower blood pressure for example. However, the research has been inconsistent. Approximately 44% of randomised controlled studies show improved health outcomes (Griffin et al., 2004), and some cross-sectional correlational studies have produced mixed results (Gabbay et al., 2003; Putnam et al., 1985; Street & Voigt, 1997).

The hypothesised reasons for these inconsistent outcomes are various (Street et al., 2009). One possibility is the failure to identify the communication elements which are causally associated with outcomes, which in turn must be preceded by their consistent operationalisation. Another source of inconsistency is the failure of doctors to match these communication elements to the expectations of patients. For example, in lay reviews of GP communication, affective communication such as expressions of empathy received the greatest proportion of positive comments (Mazzi et al., 2015). However, research suggests 57-75% of GP expressions are task-oriented (Bensing et al., 2003; Levinson et al., 1997; Paasche-Orlow & Roter, 2003). It is thought that tailoring communication to match patient expectations will enhance satisfaction and health outcomes.

A 2013 review of the literature highlighted patient communication preferences as an understudied area, identifying only 27 publications (Deledda et al., 2013). Furthermore, inconsistencies were identified in the coverage of this domain of research.

Quantitative research was found to be dominated by research into information provision, while qualitative research focused on fostering relationships. Both types of research had been conducted on responses to emotions, but different aspects of emotion responding. While quantitative research focused on explicit responses, qualitative research was concerned with more indirect emotional responding such as tone of voice, pace, use of silence (Deledda et al., 2013).

Affective communication is one potential mechanism by which communication could impact health outcomes. Research has shown that not only do patients prefer empathic responses which provide them with space to respond (Mazzi et al., 2013), such responses influence physiological arousal and the recall of medical information (Sep et al., 2014; Verheul et al., 2010).

In this study, rather than asking about expectations, we probed patient experience by asking patients two broad open-ended questions: “What does your doctor do to be a good doctor?”, and “How does your doctor handle emotion?” In a paper being published concurrently we have generated a communication model with the behaviours described by patients, and thus attempted to integrate qualitative and quantitative methodologies.

Methods

Participants

Participants were volunteers who responded to advertising in Palmerston North, New Zealand. The advertising sought participants who had positive experiences with their GP. The study was advertised in 22 General Practices, on noticeboards on the Massey University Campus, and via a press release which was published in the local newspaper. Data was gathered through semi-structured individual interviews with the participants (14

females, 1 male) who ranged in age from 21-92 years of age. The occupations of the participants were varied: four are students, two are retired, and nine are involved in business administration.

Procedure

Approval for this study was obtained from the Massey University Human Ethics Committee prior to commencement. The interviews occurred at a time and place chosen by the participant, and were conducted by the first author. For most participants the interview occurred at their place of work or study. Before initiating interviews participants read an information sheet which detailed the aims of the research, the requirements of participation, the use of data, and their rights. Participants were then asked to sign a consent form.

A semi-structured interview format was utilised to explore patient perspectives on what contributes to positive experiences with their GP, and how their doctor responds to emotion. A semi-structured approach appropriate for an exploratory study seeking rich novel data was utilised. This allowed a more open and flexible approach which facilitates rapport and produces a more conversational style of interview (Smith & Osborn, 2003).

The interviews began by asking participants, "What does your doctor do to be a good doctor?" Participants' responses were then explored further using more specific open-ended questions. The content and sequencing of these questions followed the guidelines of Patton (1990). This involved asking participants about behaviours and experiences first, such that subsequent questions with regard to interpretations and feelings would be grounded in context and accuracy enhanced. A similar approach was then taken with the question, "How does your doctor respond to emotions?"

All participants consented to the audio recording and transcription of the interview. The average duration of the interviews was 60 min, the shortest interview was 45 min. When the interview was completed participants were given a \$20 grocery voucher as a gratuity.

Interviewing continued until it was apparent that no new information was emerging to further illuminate patients' positive experiences with their GPs, or GPs responses to emotions. A state defined as saturation (Morse, 1995). The first author transcribed the interviews, and a copy of the transcript was offered to each participant. No participant wanted a copy of the transcript.

Analysis

A thematic analysis was conducted on the data. The aim was to identify the medical communication behaviours associated with positive patient experiences and responses to patient emotion.

Thematic analysis is flexible method of organising and describing patterns in qualitative data. An essentialist epistemological stance was adopted. That is, the language used by participants is assumed to reflect the meaning and experience of doctors' behaviour. It follows that subsequent coding of behaviours into thematic categories occurred at the semantic (explicit) level, rather than the latent level (Braun & Clarke, 2006).

Thematic analysis was a recursive process involving reading and re-reading the transcripts, coding of fragments of transcripts, and organising these codes into themes. Themes were then reorganised until it was felt they were both internally homogeneous and externally heterogeneous (Patton, 1990). The ATLAS.ti software package (version 6.2) was used to code the data.

Results

Themes

Three global themes emerged from interviews with patients: *Personalisation of care*, *Investment in care of the patient*, and *Management of Emotion*.

Personalisation

All of the patients made comments such as “The doctor knows me”, and “I am not just a number”, and this was a highly valued aspect of their relationship with their GP which contributed to their positive experiences. There were five subthemes identified which facilitated this sense of personalisation: *Tone*, *Attentive Listening*, *Explanation*, *Contextualisation*, and *Demographic Matching*.

Tone.All of the patients described their doctor as friendly. This atmosphere was achieved through a combination of verbal, non-verbal, and environmental mechanisms. Patients often described interactions beginning with social banter, the content of which included recollections of the patient’s family life and interests, sometimes the latter overlapping with those of the doctor. In conversation the doctor was noted to have a sense of humour, and were thought to speak as an equal. Non-verbally doctors were described as having relaxed body language. Patients also made note of the office environment including features such as, toys for children and family photographs.

“He’s mad on sport so he asks about my husband who’s a good sportsman....”

Attentive Listening. Patients felt doctors allowed them to speak in an uninterrupted manner, and were seen to be listening due to non-verbal responses such as eye contact. Doctors were described as holistic, and realistic taking the patient's personal circumstances into account. Consideration of this broader life context was then utilised to tailor the patient's treatment. Consequently, patients felt they had choice and control in treatment decision-making, and doctors were seen as non-authoritarian. Patient's also noted that doctors reflected on observations with regard to their appearance.

"....he thinks the best idea is to have the operation, but because I've got kids and I'm not mentally in the right space to....do the recovery really, because.... so he's prepared just to sort of keep giving me supplements, and medication, and pain killers and stuff"

Explanation. When explaining treatment, medication, or symptoms, patients noted that doctors spoke on their level, without jargon. One patient also remarked that she was allowed to choose which aspect of the explanation were important to her.

"Give you probably more information than you need, but....Yeah he lets you pick out what's relevant."

Contextualisation. Patients often noted that their doctor knew their history. This was partly retrospective, concerning their medical history, but also involved the doctor reflecting on the progress of treatment and their health. Patients also commented on the established nature of the relationship with the doctor. There were also prospective elements to patient-doctor interaction, with patients remarking that doctors manage their health, and ask where they are heading.

“....and he said to me, ‘We finally got there mate’. And he said, ‘Yeah, sometimes you gotta go up that hill, and, and get there eh. And you did it.’”

Demographic Matching. Fourteen of the fifteen patients interviewed were female. Those patients with female doctors felt their doctor had a better understanding of their health issues because of this gender matching. Furthermore, in one case this congruence could be seen to extend to roles such as being a mother.

“....she can relate to me because she’s had kids and she knows its difficult, to be working and having kids, and like she understands that.”

Investment

Patients often remarked that their doctor went “above and beyond” in their healthcare. The patients were left with the impression that the doctors were interested in and engaged with their health. This included the subthemes of *Following-up* on health issues, *Reassurances of non-abandonment*, and being *Responsive* to need.

Following-up. Patients often raised this characteristic of the relationship in the context of medical uncertainty. Doctors framed treatment as a process of trial-and-error and did not guarantee treatments would work, but they encouraged patients to return if their health did not improve. Furthermore, they would ‘pursue’ other medical professionals, and contact patients at home or work to evaluate health and make changes to medication.

“my doctor rung me at work here one day and said, ‘I don’t think the medication you’re on is right’. Cause it wasn’t quite working, and he said, ‘I want you to come off of that one, and I have got the nurse to fax through to your pharmacy, a script for you to pick up after work.’”

Reassurances of non-abandonment. Patients often reflected on times of considerable treatment uncertainty, during which their doctor had offered reassurance of their ongoing presence and commitment to resolving the health issue.

“He said, ‘The minute you get any pain, I want you to ring the nurse and ask her to give me a message....we’ll change you onto this one and give you a try’”

Responsive. Some patients remarked that in a time of crisis, their doctor had been very prompt and responsive. This included extending consultation times, and increased frequency of appointments to monitor progress of a health issue. One of the consequences of this was a sense of reciprocal investment evident in the tolerance of subsequent wait times for example.

“...I had had it before but this time was particularly bad....and....I will never complain about waiting in a doctors surgery again because he saw me instantly....”

Management of emotion

All of the patients interviewed were asked how their doctor responds to emotion, and how he/she talks about emotion. A number of patients responded in the same way to these questions by either saying, “I’ve never had a serious health issue”, or “I’ve never been emotional with him/her, its never come up”. There were a few patients however, who could detail serious health events, and the way in which the doctor responded to these events. In patient accounts three sub-themes emerged: *Focused problem-solving*, *Empathy*, and *Response modulation*. (Note: empathy could be response modulation, making it a distinct category implies that it only involves reappraisal).

Focused problem-solving. Some patients reported that the doctor never explicitly expressed concern and yet they felt that their concern was reflected in the non-verbally in the seriousness of their expressions, and the commitment with which they approached the health issue. Here we see an interaction with the *Investment* theme, as treatment involved reassurance of non-abandonment. Interestingly, there is also the contra-hedonic expression of humour, rather than fear in anxiety provoking situations.

“...I got this awful chest infection in which I’d had two lots of antibiotics and nothing happened....ended up that I had to be nebulised. And he was all serious. There was no joking or laughing or anything in that visit.”

3.4.2 Empathy

Empathy was a prominent theme in patients' stories of positive experiences with their doctor. This involved reappraising the situation and the emotion through the use of reflection, normalisation, and perspective-taking. Patients reported the consideration of their broader psychosocial context by their doctor, and also their role in that context. Thus, we see an interaction with the theme of *Personalisation*.

She just looked at me and she's like, "I know its hard....You're doing the best that you can, and the fact that you're concerned about him....You're a good mother"

Response modulation. Some patients described situations in which they had explicitly expressed emotion in front of their doctor and the doctor responded by physically comforting them. Other patients described situations in which the doctor had waited quietly while they cried.

"...and so there have been times when I've been quite upset and he's gives me, gives me a hug and says, 'Its great to see ya'"

Discussion and Conclusion

Discussion

This study explored patients' positive communication experiences, and extends the existing literature in two ways. Firstly, the importance of contextualising the patient to the integration of the social, instrumental, and affective domains of communication. Secondly, this study integrates the findings of qualitative and quantitative research into patient expectations with regard to responding to emotion. There is evidence to support an emotion regulation framework for affective medical communication.

Patients often gave primacy to the tone of their relationship with their doctor. Doctors were consistently described as friendly, and patients felt known with regard to both their medical history and their wider life. Although fostering relationships is frequently identified amongst patient expectations, some researchers have questioned the importance of social behaviour to quality of care (Bensing & Dronkers, 1992). However, this may be a consequence of expert evaluation of medical interactions. More recent research has shown knowing the patient facilitates instrumental behaviour by increasing engagement in decision-making (Thorne et al., 2013). Furthermore, patients desire tailored or individualised treatment, and patients in this study repeatedly contrasted their positive experience with the depersonalisation being treated “as a number”. Knowing the patient also facilitates affective behaviour as familiarity enhances empathy (Batson et al., 1996).

In this research patients did not spontaneously speak of medical-technical competence. Rather, they spoke of the qualities of the doctor’s communication. An important quality to medical-technical behaviour including decision making was tailoring, ongoing engagement through the reassurance of non-abandonment, and being both attentive and immediately responsive. Treatment was framed as a process of trial-and-error. The inherent uncertainty in this approach was counterbalanced with reassurance of ongoing engagement and non-abandonment. Such reassurance is a known characteristic of empathic statements which are highly rated by patients (Mazzi et al., 2013).

Finally, patients' recollection of their doctor's response to emotionally arousing events supports the previous findings of both qualitative and quantitative research. Responses were either indirect, and/or direct or explicit behaviour. Patients gave examples of supportive but indirect responses to emotion such as normalising, reflecting, reframing, and giving perspective. There were also direct responses to expressed emotion such as physically comforting the patient. A third class of response was also noted. Some patient's believed their doctor responded to their emotion with focused problem solving. Such an approach would be consistent with Lazarus's problem-focused coping (Lazarus, 1966). Given this range of potential responses to emotions which includes both indirect responses and more technical problem solving, an incomplete interaction analysis system could erroneously conclude that a doctor has missed cues of emotional distress, when in fact he/she has responded in a way tailored to the patient and context.

The emergence of these three subthemes of emotion responses is consistent with the emotion regulation framework of Gross (1998a, 1998b). Focused problem solving to direct attention away from emotion, empathy to engage cognition in a reappraisal process, while physical responses or lack thereof attempt to moderate the behavioural expression and experience of emotion.

Conclusion and Future Directions

Time is important in a retrospective, present, and prospective sense. Previous research has shown the importance of time in the prospective sense in the context of prognosis (Walczak et al., 2013). Thus, the domains of medical communication behaviour do not operate in isolation.

Although patient experiences seemed to have more similarities than differences, there were some examples of individual differences in preferences. For example one patient referred to social chat as time wasting, and another claimed she was not a “scardy” person when asked about emotion responses. The current study did little to consider individual variance in patient communication preferences.

In future research we will attempt to be both sequential, by building on this research, and integrative by combining this qualitative approach with quantitative methods. This has already begun with a paper being concurrently published. Behaviours identified in this study have been utilised to generate a multi-dimensional model of doctors’ communication behaviour from the patient’s perspective. A subsequent study will look individual variance in patient communication preferences by generating patient profiles using this model.

Limitations

A clear limitation of this study are demographic characteristics of the participants. Fourteen of the fifteen participants were female New Zealand Europeans. Furthermore, all of the participants came from a single geographic location. Previous research has shown females to be more empathic than males, such that males may have different preferences for emotion responses. Research has also shown that health preferences with regard to health communication differ culturally and in the context of different health systems (Goldstein et al., 2002; Huang et al., 1999; Mitchison et al., 2012; Walczak et al., 2013). Further research will be needed to test the generalisability of the findings.

Reflections

Despite discussion of the relative importance of medical-technical and affective behaviour in the research literature (Roter, 2000; Roter et al., 1997), in this research patients did not discuss technical skills when reflecting on positive experiences with physicians. Patients' primarily attributed the quality of their experiences to relationship factors, which included empathy and collaboration. This parallels findings from common factors research in the psychotherapy context (Bohart & Tallman, 2010; Norcross, 2010), and speaks to common aspects of human relationships and their generalisability. The subsequent phases of the research address the specific behaviours involved in enacting doctor-patient relationships, and their dimensional organisation. The question is then asked, are specific patient preferences evident despite these general common factors?