School of Psychology

The Rituals of Medicine: Exploring the General Practice Consultation using simulated consultations

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Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Signature: 

Date: 09/05/2012

Table of contents

List of Tables

List of Figures

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Abstract

The consultation is a distinguishing feature of general practice compared to other medical disciplines. The relationship between the doctor and patient is crucial to the successful outcome of the consultation. Despite suggestions in the literature that interruptions to the consultation are detrimental to this relationship, there is a lack of research to support this claim.

The overall aim of this study was to explore the consulting style of General Practitioners (GPs) and the impact of interruptions to the consultation to further understand GP behaviour and the doctor-patient relationship during the consultation. The implication of the study was to raise awareness for GPs of their consulting style and interaction with patients, potentially leading to changes in behaviour, resulting in better outcomes from consultations.

This research involved six GPs consulting six actor-patients during two video recorded simulated consultation workshops. This research consisted of three studies. The first involved observation of GP behaviour during the simulated consultations, and the impact of interruptions to the consultation; the second involved GP and patient perceptions of behaviour during the consultations, and the impact of the interruptions; and the third involved obtaining GP and patient perspectives of behaviour and interruptions to the consultations, prompted by video footage from the consultations.

In Study 1, evidence was found to support a GP consultation style whereby individual GPs showed similar behaviours during each consultation despite consulting a variety of patients. Variability in GPs ability to cope with interruptions to the consultation, and the little time spent by GPs establishing a relationship with patients regardless of the consultation being interrupted was highlighted. The findings of Study 2 supported previous reports of the frequent occurrence of interruptions to the consultation. Differences between GPs beliefs and patient perceptions of the impact of interruptions to the consultation to the doctor-patient relationship were highlighted. In Study 3, the opening sequence of the consultation

was found to be of importance to the doctor-patient relationship and the outcome of the consultation.

Overall, the findings of this study showed GPs inability to describe their behaviour, and a lack of awareness of their behaviour during the consultation. As a result, GPs may be missing vital cues from patients during the consultation regarding their thoughts and concerns, which may have negative consequences for the doctor-patient relationship. These implications, however, require further research. This study concluded that reflection, and mindfulness could be applied to GP consultation behaviour, using video techniques, in order to raise GP self- awareness of behaviour, improve communication, and the way that GPs relate to patients, and to improve outcomes of general practice consultations.

CHAPTER 1
Introduction

The consultation is at the core of general medical practice (Kinnersley, Stott, Peters, & Harvey, 1999). It is where the General Practitioner (GP) and patient meet (The Royal College of General Practitioners Working Party, 1972). Careful communication between the two leads to symptom revelation, examination, diagnosis, and an appropriate management plan for a disease or illness (Freeman et al., 2002). With consultations taking such a short period of time, and requiring such intricate measures, establishment of a relationship between the GP and patient is paramount. This research explores the way that GPs consult and relate to patients, in order to identify behaviour carried out by individual GPs and their patients. Additionally, the impact of an interruption to the consultation on this behaviour is also explored.

1.1 Thesis Overview

In this chapter literature about general practice consultations and the doctor-patient relationship are reviewed. The history of the consultation is outlined initially, followed by the roles of those involved. The doctor-patient relationship and its importance during the consultation are then discussed. The development of models of the consultation are then outlined, and research methods are reviewed. Interruptions to the consultation are then discussed. Finally, the objective of this research is stated, and the aim and rationale of each specific study is outlined.

In Chapter 2, 3 and 4 the three studies undertaken in this research program are described. The literature relating to each study is summarised initially, followed by an outline of the methodology used. The data are then presented and the findings discussed.

In Chapter 5 the findings of the research program are discussed overall. The position and importance of this work, in regard to the literature of the general practice consultation is then outlined. The addition to the field made by this program of work is then described. The strengths and limitations of the research program are outlined, and recommendations for further research are made.

1.2 General medical practice

General practice is the provision of primary and ongoing care to patients and their families (Anderson, Bridges-Webb, & Chancellor, 1986). The General Practitioner (GP) is required to give personal, primary and ongoing care to individuals, their families and their communities (The Royal College of General Practitioners Working Party, 1972). The GP is the first point of contact for a number of diseases, and for professional help (Freeling & Harris, 1984). GPs coordinate care and are often the link between the patient and other aspects of the medical system including further investigations and treatment. GPs integrate physical, psychological and social factors in consideration of health and illness (The Leeuwenhorst Working Party, 1977). Oleson, Dickinson and Hjortdahl (2000) in their proposed new definition for GPs stated that the GP takes care of individuals irrespective of their disease type or other personal and social characteristics. The GP organises the resources available in the healthcare system to the advantage of the patient (Olesen et al., 2000).

1.3 The general practice consultation

The consultation is increasingly becoming a distinguishing feature of general practice compared to other medical practice (Bower, Gask, May, & Mead, 2001). Byrne and Long (1976) stated that the consultation is the foundation and major work of the GP. The general practice consultation is the medium through which medicine is played out (Pendleton, Schofield, Tate, & Havelock, 1984), and is the point where GP and patient meet (The Royal College of General Practitioners Working Party, 1972). Patients present to GPs to seek help for physical or psychological suffering (Freeling & Harris, 1984). The consultation remains a complex interaction because patients present with undifferentiated illness (Freeling & Harris, 1984; Levenstein, McCracken, McWhinney, Stewart, & Brown, 1986; Middleton, 1989). The GP is required to determine the cause of the symptoms and take initial steps to resolve them (Pendleton et al., 1984). The consultation should result in a therapeutic management plan (Pendleton et al., 1984).

The general practice consultation was traditionally a short encounter where the patient presented symptoms and the GP responded with a prescribed treatment, as was required of the ‘biomedical’ model (Bower et al., 2001; Mishler, 1981) of medicine at the time (Pendleton et al., 1984). Spence (1960) stated that the purpose

of the consultation was for the GP to gather evidence and give explanations and advice. The illness was viewed independently of the patient suffering from it (McWhinney, 1983). Bower et al. (2001) stated, however, that GPs became increasingly aware of the limitations of this model due to the range of conditions encountered. Balint (1957) attempted to describe the importance of consideration of the patient as a whole rather than just the disease itself. Balint was the first to question the biomedical model. Balint's descriptions centred on the effect of the visit to the doctor by patients, that this was therapeutic in itself, similar to the effects of a medicinal drug. These depictions were well received and the consultation evolved to requiring GPs to take a more holistic approach to caring for the patient. The focus shifted from pathology to consideration of the patient's environmental, psychological and social issues (The Royal College of General Practitioners Working Party, 1972).

1.4 Roles of individuals involved in general practice consultations

The historic 'biomedical' model saw the roles of GP and patient described as 'activity-passivity' (Szasz & Hollander, 1959). The role of GP and patient were defined by strong societal expectations (Friedman & DiMatteo, 1982). The patient was usually a passive recipient of the GPs prescribed treatment (McWhinney, 1983). As a result the GP was given authority to ask intrusive questions and perform intimate examinations. The consultation was an environment in which GPs could breach normal social etiquette, however, they were then governed by certain expectations, in particular, that they would ascertain how to resolve a complaint.

McGregor (2006) stated that presenting to the GP for an appointment implicitly gives consent, in advance, for this behaviour, power and control. Parsons (1964) proposed that patients assume a 'sick role'. Parsons believed that patients entrusted responsibility for their wellbeing to their doctor. Patients considered themselves defeated by the disease (Parsons, 1964). Patients were looking for someone else (the doctor) to take the burden of their lives, with the experience of the current illness, and provide guidance and treatment. More recent descriptions state that the patient wants the GP to listen to, and address their concerns, and to have access to a wider variety of medical services (Thorsen, Witt, Hollnagel, & Malterud, 2001).

McWhinney (1998) stated that the GPs role is one of moral obligation, to respond to suffering. The GPs key role is to respond to the patient's presentation and make a clinical assessment (McWhinney, 1998). Anderson et al. (1986) described the GPs most important role as unravelling the patient's presentation and defining the problems. The doctor needs to clarify what issues the patient wants addressed during the consultation (Kurtz, Silverman, & Draper, 1998). Levenstein et al. (1986) described the role of the GP as being two-fold in that the GP must understand both the patient and the disease.

1.5 The doctor-patient relationship

The GPs understanding of the patient and their disease derive from the relationship they have with the patient (Stewart, McWhinney, & Buck, 1979). Ong, de Haes, Hoos, and Lammes (1995) described the doctor-patient relationship as one of the most complex of all interpersonal relationships. This relationship can often be difficult to manoeuvre due to issues of power and the required level of intimacy, which must result favourably for the patient (Nadelson & Notman, 2002). Toop (1998) stated that the doctor-patient relationship allows for two individuals with limited knowledge of each other to feel comfortable with a high level of intimacy.

During the consultation the patient and GP must communicate in such a way that the reason for the patients' attendance is determined. Foucault (1973) noted that questions to patients during the period of the biomedical model focussed on determining where pain was felt, and were seeking specific information about symptoms, rather than considering the patient holistically. Foucault described the relationship between patient and doctor as a power relationship (Henderson, 1994). Foucault outlined how the doctor uses a 'medical gaze' to create this power. This gaze separates the patient and their body and enables the doctor to see beneath the surface of a patient to find the 'hidden truth' (Foucault, 1973). Foucault indicated that patients should disclose all symptoms to the doctor, even if potentially embarrassing, as the doctor will inevitably elicit them and will prompt a line of questioning (Cuff, Sharrock, & Francis, 1998). Ong et al. (1995) stated that during the time of the biomedical model patients were not included in decisions about their condition or management. The relationship was paternalistic in that the GP made these decisions on behalf of the patient (Ong et al., 1995). Patients were often

included at the ‘tail end’ of discussions or decisions concerning treatment regimes (McGregor, 2006).

Balint, Hunt, Joyce, Marinker, and Woodcock (1970) introduced the notion of ‘patient-centred medicine’ as opposed to illness-centred medicine. This new concept involved an understanding, on the GPs part, of the patients overall complaints, as well as understanding of the physical illness (Levenstein et al., 1986). Stewart et al. (1979) conducted initial research into this more holistic approach to patient care. The authors investigated the factors that affect GPs knowledge of patient’s problems, and the impact of this knowledge on the patient’s recovery and satisfaction with care. Pre-consultation interviews with patients were compared with post-study period questionnaires completed by GPs. The interview data contained baseline information of the patient’s complaints and the questionnaires indicated GPs knowledge of the patient’s complaints. Additionally, patients were interviewed again at the end of the study period to assess recovery and satisfaction. Stewart et al. found that GPs were more aware of complaints when the patient initiated the consultation, and when the complaints related to daily living, rather than relating to a social problem. Stewart et al. stated that the doctor-patient relationship was described as a reflection of the doctor’s knowledge of the patient’s physical problems as well as psychological and social issues.

A limitation of this study, however, was that it was conducted in a rural area in the US and involved only five GPs, which limits the generalizability of the results. These GPs may have had a stronger relationship with their patients, due to living in a less populated area and seeing each other in environments other than the doctors practice, compared to GPs and patients in urban areas. With regard to satisfaction and recovery, patient’s perception of recovery improved with the GPs knowledge of the condition, but no other associations were significant. Stewart et al. outlined that further research was necessary in this area to determine how GPs knowledge of a complaint improved the patient’s perception of recovery, as it may well be that just by talking about the condition with the GP, the patient was comforted. This study highlights the importance of the doctor developing a relationship with the patient and understanding the patients concerns and complaints.

Brown, Stewart, McCracken, McWhinney, and Levenstein (1986) and Levenstein et al. (1986) subsequently outlined the patient-centred clinical method, a model for interaction between the GP and patient. The method was a two-fold approach for the GP of understanding both (i) the patient (known as the patient's agenda), as well as (ii) their disease (the doctor's agenda) (Levenstein et al., 1986). This model embodied both the concept of patient-centred medicine described by Balint et al. (1970), and the early findings of Stewart (1979), by emphasizing the need for GPs to view the illness from the patient's perspective.

Following this, Stewart et al. (1986) investigated whether the interviewing behaviour of resident GPs utilised a more patient-centred approach over the course of a two-month period. Thirteen residents were asked to videotape two consultations at a general practice at the beginning and end of the study period. The investigators then assessed the recorded consultations by analysing the conversation between GP and patient for patient expectations or complaints, and behaviours that were deemed 'facilitating' by the GP. The authors found that over time the resident GPs improved in their ability to use a more patient-centred approach. The findings of this study, however, are questionable due to the small number of consultations reviewed; the absence of a comparison group, the exclusion of patients attending for counselling or psychotherapy, and the fact that only one investigator assessed each consultation. These factors impact on the degree to which the results can be generalized. Additionally, although the consultation was recorded, only conversation was analysed meaning that non-verbal communication was not believed to be facilitating. An unexpected finding, however, was the sheer number of patient expectations in each consultation requiring attention, indicating the complexity of consultations, and the difficulty for the GP in addressing them all issues (Stewart et al., 1986). This study highlights that GPs, although new graduates in this instance, can gradually make changes to their consulting behaviour in order to be more inclusive of, and improve their relationship with patients.

Howie, Heaney, and Maxwell (2004) stated in their essay on quality and core values in general practice, that the development of a successful doctor-patient relationship is the product of good communication skills on behalf of the GP. Maguire and Pitceathly (2002) indicated in their description of key communication skills, that GPs

with good consultation skills would identify patient's problems more accurately. The skill required by GPs during this complex encounter has often been referred to as a form of art. The ability to elicit patient's reasons for the consultation and determine the best possible management plan is referred to as the 'art of medicine' (Malterud, 2001). Freeman et al. (2002) stated in their report on a systematic review of the literature regarding the impact of length of the consultation, that effective consultations involve the GP accurately recognising, acknowledging and responding to patient's problems and concerns. Therefore, the success of the consultation depends on the doctor-patient relationship (Toop, 1998). These reports suggest that GPs who can effectively communicate with patients develop strong relationships with their patients. As a result, they will be more likely to elicit the reason for the patients' attendance, and respond by developing an appropriate treatment plan, indicators of a successful consultation.

1.6 The doctor-patient partnership

More recently, however, the focus of the doctor-patient relationship in the literature has been on building partnerships (Silverman, Kurtz, & Draper, 1998), and negotiation between doctors and patients (Middleton, 1989). This means that not only must the doctor recognise the patients concerns and complaints in order to develop a treatment plan, but also involve the patient in treatment decisions ensuring that they understand what is involved and agree. Involving patients in decisions about management of their medical conditions is increasingly being advocated as a way of improving the quality of health care (Ford, Schofield, & Hope, 2006). Ong et al. (1995) stated in their review of the literature, that a shared decision-making model has replaced the traditional approach. Gibson, Jenkins, Wilson, and Purves (2006) in their investigation of prescribing decisions, and doctor-patient communication during the general practice consultation, stated that patients are becoming more active participants in the consultation. These changes to the doctor-patient relationship and the increased management of chronic illnesses in general practice has led to further complexities in the consultation because GPs are required to engage with patients in order to become partners in care (Bower et al., 2001).

Due to this shift to a more patient inclusive approach to the consultation, many studies have focussed on determining the impact of the approach on the outcome of

the consultation (Kinnersley et al., 1999; Little et al., 2001b; 2001c; Mead & Bower, 2000). Howie et al. (2004), however, stated that patient centeredness is a multidimensional concept, which is hard to both define and measure. Mead, Bower and Hann (2002) assessed the validity and reliability of three different measures of patient centeredness. The authors found that the three observational techniques demonstrated varying levels of reliability, and relatively low validity (Mead et al., 2002). Each technique was found to have limitations in accurately measuring patient centeredness. These studies highlight the challenge of defining patient centeredness into practical terms for GPs, and as a result, developing measures of patient centeredness in the consultation.

Kinnersley et al. (1999) investigated the benefit of patient-centred consultations for patients consulting GPs in the UK. Kinnersley et al. reviewed the audio recordings of consultations to determine how GPs communicated with patients, and compared questionnaires completed by patients before and after the consultation, and again two weeks after the consultation. These questionnaires collected information on patient satisfaction, resolution of patient concerns, resolution of symptoms, doctor-patient agreement, and the health status of participating patients. Kinnersley et al. (1999) found that although the majority of measures were not significant, patient satisfaction was significantly increased with patient-centred consultations. However, this study involved data from one randomly selected consultation from each of the 143 participating GPs. This study may have been improved if more than one consultation was used for each GP, to obtain data from more of an 'average' consultation. The selection process used may have involved potentially 'good' or 'bad' consultations for each GP, therefore influencing the outcomes of the study.

Howie et al. (2004) stated in their review of the literature regarding patient centeredness, that studies involving small numbers of consultations from participating GPs were unreliable depictions of a GPs general consultation, due to variables such as case mix, the doctor-patient relationship, and individual patients. Kinnersley et al. argued, however, that by using one case for each GP, statistical analysis is simplified, and that the consulting styles of each GP were not the focus for this investigation. Kinnersley et al.'s argument highlights the notion of a GP consulting style, and the role that this may play in the way in which GPs relate to

patients. These reports also highlight the need for further research into the impact of the use of a patient-centred approach, and GP consulting styles on the doctor-patient relationship in the general practice consultation.

Little et al. (2001a; 2001b) investigated patient preferences for, and patient perceptions of patient centeredness during the consultation. Participating patients completed a questionnaire before and after consulting a GP at one of three general practices. The pre consultation questionnaire collected information regarding what the patient wanted the GP to do during the consultation, while the post questionnaire asked patients to rate the consultation style of the GP in terms of patient centeredness. Little et al. (2001c) found that patients strongly wanted a patient-centred approach to the consultation, particularly focusing on communication, partnership, and health promotion. Additionally, Little et al. (2001c) found that when participating patients did not get what they considered a patient-centred consultation, they showed more symptoms, were less satisfied and felt less enabled. This means patients did not feel empowered or that they had the ability to understand and cope with the problem, and with life (Howie, Heaney, & Maxwell, 1997).

This research has faced criticism in the literature, however (Skelton, 2001), due to the instrument used to measure what the patient wanted the GP to do. Patients were asked to agree or disagree with items such as 'wanting the GP to know the reason why they are there'. Skelton, (2001) questioned whether patients would ever not want this to be the case, and that the responses were just common sense. Little et al. (2001a), however, argued that the questionnaire used was of a standard psychometric design, and that it would have been incorrect to constrain participants from being able to disagree, potentially introducing bias to the responses. The questionnaire used by Little et al. (2001c) involved a seven point Likert scale, ranging from very strongly agree to very strongly disagree, with statements about what patients wanted the GP to do during the consultations. The questions were based on the five main domains of the patient-centred model (Stewart et al., 1995), and were piloted with 140 patients. Interviews were subsequently conducted with these patients and provided feedback on the validity of the questions. Twenty patients in the pilot were retested two weeks after the initial completion of the questionnaire, which showed sufficient test-retest reliability of the questionnaire. The questionnaire in the study by

Little et al. (2001c) was therefore reliable, and valid, in measuring what patients wanted from the GP, and in allowing patients to select that they didn't want the GP to know the reason for their attendance. This study and the questions it raised highlight the difficulty in measuring patient centeredness during the general practice consultation.

1.7 Models of the consultation

Many models of the consultation have been proposed in an attempt to describe and understand the proceedings of the consultation (Byrne & Long, 1976; Helman, 1981; Pendleton et al., 1984; Stott & Davis, 1979). These models provide frameworks for the GP as to how to interact with patients and progress through the consultation. These models generally describe the consultation as a series of phases or tasks from beginning to termination. These stylized descriptions of the encounter allow those involved to prepare accordingly (McCormick, 1979). For example, the patient can expect the GP to perform an examination after taking a thorough history. Similarly, the GP will be expected to outline further investigations and a management plan following the examination. Many of these models also attempt to provide guidelines for GPs on how to communicate with patients (Cohen-Cole, 1991; Kurtz & Silverman, 1996; Levenstein et al., 1986; Neighbour, 1987). Despite the prevalence of models of the general practice consultation in the literature, few have derived from research. The majority are largely based on the opinion and experience of the authors.

The first of these models was proposed by the Working Party of The Royal College of General Practitioners (1972). This small group of teaching GPs, based in the United Kingdom (UK) was required to provide guidance for the education of GPs, particularly postgraduate GPs. A focus for this work was the consultation; therefore the opinions of these GPs formed a model for the consultation. The authors stated that the content derived from self-audit of day-to-day work. This early model promoted consideration of the patient's emotional wellbeing, family, social, and environmental state, and classified the consultation into six key steps. The steps involved tasks for completion during the consultation and included taking a history, performing an examination, ordering investigations, making a diagnosis, outlining a treatment plan and making plans for follow up with the patient. This work

highlighted that from early on in the field of general practice, that GPs approach to the consultation was one of completing a series of tasks, much like a checklist. This report also highlighted GPs ability to reflect on the way in which they behave in the consultation.

Following this initial guidance for GPs on what was required during the consultation; many other ideas emerged, and were translated into practical terms for GPs. Heron, (1976) took a different approach from the College Working Party, and described the consultation as a series of interventions that the GP could utilise. Six categories of interventions were described which indicated required behaviours from the GP according to the best interest of the patient. The six categories were divided into two groups: authoritative and facilitative, due to the role that the GP was required to take with each of the six interventions. Authoritative behaviours required the GP to be assertive, and dominate the consultation, while facilitative behaviours encouraged the GP to comfort, support and counsel the patient. Heron's six category interventions are:

Authoritative:

(i). Prescriptive behaviour: the GP gives advice or instructions.

(ii). Informative behaviour: the GP imparts new knowledge, instructions or interpretations.

(iii). Confronting behaviour: the GP gives feedback or challenges a particular behaviour or attitude.

Facilitative:

(iv). Cathartic behaviour: the GP is seeking to release patient emotions.

(v). Catalytic behaviour: the GP encourages the patient to discover and explore his own thoughts and feelings.

(vi). Supportive behaviour: the GP offers the patient comfort and approval.

Heron (1976) stated that a skilled GP should be proficient at all of the six interventions, should be able to move from one intervention to the other depending on the direction of the consultation, and should be aware of which intervention they are using. However, Heron stated that in his experience of teaching this model, that most GPs were more proficient at the authoritative behaviours than the facilitative.

Heron's description of the consultation highlighted the way that the GP controlled the consultation, and took little notice of the patients' thoughts, ideas, and concerns.

Byrne and Long (1976) conducted one of the most extensive studies of the consultation involving audio recordings of consultations from 71 GPs. Byrne and Long were attempting to uncover aspects of the consultation which were common to a number of GPs, and those that were unique. The authors analysed the transcripts of approximately 2500 audio-recorded consultations and subsequently described a new model for the consultation, involving a sequence of six phases. These phases were described as a logical flow for the consultation. However, the authors noted that in practice GPs rarely perform these phases in sequential order. The model is therefore expressed as an ideal. The six phases of this model are:

(i). The doctor establishes a relationship with the patient.
(ii). The doctor attempts to discover the reason for the patient's attendance.
(iii). The doctor conducts a verbal and/or physical examination.
(iv). The doctor and the patient consider the condition.
(v). The doctor, and occasionally the patient, detail further treatment or further investigation.
(vi). The consultation is terminated. (Byrne & Long, 1976, p. 21).

This model is useful in that it is evidence based and encapsulates the consultation for GPs and researchers alike. Byrne and Long (1976) continued their work into the consultation and investigated the factors that constituted a dysfunctional consultation. The authors noted that if Phase II and/or IV are inadequately addressed, confusion and unsatisfactory feelings between the GP and patient may result. This shows the role that the relationship between the doctor and patient plays in the consultation, in that if it is dismissed, and the patient is not adequately involved in the consultation, it may be unsuccessful. Byrne and Long also discovered repetition in behaviour by some of the participating GPs, which could be described as a consultation 'style'. Byrne and Long stated that GPs in the study had developed set routines in the way that they interviewed patients, which varied little despite variation in the patients that were presenting. Byrne and Long's study is important in that it presented evidence of a consultation style, showing that GPs can become fixed

in the way that they consult patients. Additionally, this study showed how this style can be detrimental to the relationship between the doctor and patient.

Stott and Davis (1979) viewed the consultation from a different perspective than previous authors, and described it as an opportunity for the GP to educate the patient on illness prevention. The authors outlined a four-point framework whereby GPs should address each point with every patient. These four distinct areas are: management of presenting problems; management of continuing problems; modification of help-seeking behaviour; and opportunistic health promotion. Stott and Davis highlighted the importance of thinking about long term care of the patient and encouraging continuity in care. The GP is advised to consider the patient's current problem as well as past and potential future problems. Stott and Davis's creative approach set the scene for a shift in focus away from the GP and their achievement of tasks or behaviours during the consultation, to the consideration of the patient and their relationship with the GP, and their ongoing care.

Helman (1981), a medical anthropologist, was the first to describe a model for the consultation from the patient's perspective. Helman outlined the difference between disease: how GPs or scientists see pathology; and illness: a patients feelings or subjective response to being in poor health, and noted that GPs need to treat both during the consultation. Helman highlighted the differences between individuals and the manner in which they suffer or cope with illness, and noted that cultural and social differences may also impact on the patient's behaviour regarding illness. Helman's model for the consultation involved a series of questions that the patient wants answers to during the consultation. These questions are:

(i). What has happened?
(ii). Why has it happened?
(iii). Why to me?
(iv). Why now?
(v). What would happen if nothing was done about it?
(vi). What should I do about it – or whom should I consult for further help? (Helman, 1981, p. 549).

Helman (1981) stated that the answers to these questions will shape the patients behaviour, how they interpret the illness, and how they will behave or deal with it. This is useful for further understanding patient non-compliance, self-medication and dissatisfaction with care (Helman, 1981). Helman's study is important in that it emphasized the need for GPs to develop a relationship with patients, and consider them and their thoughts, ideas and concerns during diagnosis, decision-making, and treatment planning in the consultation.

Following this, Pendleton et al. (1984) described seven tasks that the GP is required to complete during the course of the consultation. Although Pendleton et al. returned to a task-based model of the consultation, this approach was innovative in that a number of the tasks explicitly outlined involvement of the patient during the consultation. The authors explained that previous models had focussed on specific skills that the GP should develop, whereas this new model involving tasks meant that a variety of skills and approaches could be used to complete them. These seven tasks are:

(i). To define the reasons for the patients attendance.
(ii). To consider other problems.
(iii). To choose with the patient an appropriate action for each problem.
(iv). To achieve a shared understanding of the problems with the patient.
(v). To involve the patient in the management and encourage them to accept appropriate responsibility.
(vi). To use time and resources appropriately.
(vii). To establish or maintain a relationship with the patient which helps to achieve the other tasks. (Pendleton et al., 2003, p.3)

Pendleton et al. (1984) noted that although the tasks are for the GP to complete, this model builds on previous literature and places emphasis on the patient and their understanding and ideas during the consultation. The authors noted that an effective consultation is one in which all tasks are adhered to, and questions should be raised when one or more tasks is omitted, as this may affect the outcome of the consultation. This study is important in that it highlighted how GP engagement with patients during the consultation, and the development of a strong relationship between doctor and patient can positively impact the outcome of the consultation.

Neighbour (1987), a GP and teacher, created the idea of the consultation as a journey, with five destinations to head for. Neighbour's renowned work, although based on clinical experience rather than research, focussed on developing an effective consulting style, and provided practical tips for GPs. The five 'checkpoints' allow the GP to tick off tasks in their mind, and focus the consultation on the next item for consideration. These five checkpoints are:

(i). Connecting
(ii). Summarizing
(iii). Handing over
(iv). Safety netting
(v). Housekeeping (Neighbour, 1987, p. 68).

Neighbour (1987) stated that connecting involves establishing a rapport with the patient, summarizing involves listening to the patients concerns and establishing why they have presented, and handing over involves the GP handing back responsibility of management of the condition to the patient, along with the advice and management plans recommended. Safety netting requires the GP to consider worst-case scenarios for the patient, and housekeeping requires the GP to 'complete' the consultation, not only in reality but also in their mind so as to be clear-headed before consulting the next patient (Neighbour, 1987). A limitation of this model for the consultation is that it derived from Neighbour's experience in consulting patients rather than research. This means it is based only on one GPs opinion regarding how a consultation should be conducted, rather than evidence. Despite this, Neighbour's description of the consultation as a journey is important in that it highlighted for GPs how the consultation is a shared experience with the patient. Additionally, the housekeeping checkpoint emphasized how GPs need to be focussed on the patient at hand in order to develop a strong relationship, and ensure a positive outcome for the consultation.

1.8 Patient-centred approaches to the consultation

Around the time of the models proposed by both Pendleton et al. (1984) and Neighbour (1987), developments were being made regarding communication and the relationship between the doctor and patient. As outlined in the previous section, Levenstein and colleagues (1986) built on the concept of the 'patient-centred

approach' developed by Balint et al. (1970). Levenstein et al. (1986) defined the patient-centred clinical method in order to describe patient-centred care in pragmatic terms for GPs. This model involved six interactive components for the GP to cover during the consultation. These are:

(i). Exploring both the disease and the illness experience
(ii). Understanding the whole person
(iii). Finding common ground regarding management
(iv). Incorporating prevention and health promotion
(v). Enhancing the patient-doctor relationship and
(vi). Being realistic in terms of resources and time (Stewart et al., 1995).

The patient-centred clinical method emphasised that the patient and GP have differing agendas that require integration during the consultation. The doctors' agenda is to determine the reason for the patients' attendance, to make the correct diagnosis, and implement preventative measures appropriate for the patient (Levenstein, et al., 1986). It also involves history-taking, physical examination and further investigations. In contrast the patients' agenda involves expectations, feelings and fears (Levenstein, et al., 1986). Following this, Middleton (1989) revisited the model described by Stott and Davis, (1979). Middleton updated this model of the consultation to include both the patients' and doctors' agenda. Middleton explains that once these agendas are elicited, they need to be reconciled, utilising the GPs' skills, into a negotiated plan. These studies are important in that they called attention to the patient during the consultation, and their ideas, thoughts, and concerns. Additionally, these studies highlighted the importance of developing a strong relationship between the doctor and patient.

Cohen-Cole (1991) also focussed on the relationship between the doctor and patient, and described the three-function approach to the consultation. Cohen-Cole stated that these three functions are central to the consultation, and that unfortunately, often it is only the first that is addressed during medical education. The three functions of the consultation are: i) gathering data to understand the patients' problems, ii) developing rapport and responding to the patients' emotions, and iii) patient education and motivation to adhere to treatment recommendations. Cohen-Cole outlined a number of skills required by the GP to perform each of these three

functions including, but not limited to: non-verbal skills, empathy, open-ended questioning, negotiation, reflection and partnership building. Cohen-Cole's work differed from previous modelling of the consultation as it took a broader perspective of the consultation, one that was less about completing tasks, and more about the encounter with the patient and the GPs preparedness to respond to this.

More recently, Kurtz and Silverman (1996) described the Calgary-Cambridge model for the general practice consultation, a five task, patient-centred approach that focuses on communication with the patient. The authors developed two guides, based on the literature regarding communication, outlining the skills that aid communication between the GP and patient. The first guide focused on the interview, and the second on planning and explanation with the patient. Each of the guides elaborated on skills associated with the five tasks of the Calgary-Cambridge model, which are:

(i). Initiating the session
(ii). Gathering information
(iii). Building relationship/facilitating patient's involvement
(iv). Explanation and planning
(v). Closing the session (Kurtz & Silverman, 1996, p.85).

Kurtz and Silverman stated that these guides distil the literature for the GP and provide practical help regarding communicating with patients (Kurtz & Silverman, 1996). The Calgary-Cambridge model was important in that it was the first to effectively merge and condense information for GPs on both communicating with patients using a patient-centred approach, and carrying out the tasks associated with a general practice consultation.

Kurtz, Silverman, Benson, and Draper (2003) revisited the Calgary-Cambridge model in order to improve this integration of communication skills with the traditional task oriented model for the consultation. The authors described this as the 'comprehensive clinical method', and differs from the previous model in the task building the relationship with the patient is replaced with physical examination. The building of the relationship with the patient is removed as a task, and broadened to cover the whole consultation, in that it is something that is not a task to be

completed, but ongoing during the consultation. This change emphasized the importance of the doctor-patient relationship during the consultation.

Despite the numerous models of the consultation in the literature, new, and revised guides for GPs continue to be developed (Launer, 2002; Moulton, 2007; Stewart et al., 1995; Stewart et al., 2003; Thistlewaite, & Morris, 2006; Warren, 2002). At the present time, the focus for these, somewhat less influential guides, is to describe the skills required to communicate effectively with patients during the consultation by implementing a patient-centred approach, rather than reformulating the steps or phases of the consultation.

1.9 Using video to research the GP consultation

Although many models have been developed in order to describe the consultation, as discussed, there has been no unanimous decision regarding an overarching theory or model (Bower et al., 2001). This means there has been no unified approach to describing the best method for consulting with patients that results in the best care. Medical students therefore receive variability in training and patients receive variability in care. As a result of the numerous models various research techniques have been employed in order to investigate the appropriateness and effectiveness of such models and for development of new ones.

A common method for general practice research is the use of video recordings to observe behaviour (Heath, Luff, & Sanchez Svensson, 2007). Heath et al. (2007) noted an increase in the use of video recordings, which was thought to be due to recognition of nonverbal behaviour. Coleman (2000) reviewed the literature regarding the use of video recordings in primary care. Coleman stated that the use of video recordings of consultations has broadened the scope of research, in that more questions can now be answered. Coleman noted advantages of the use of video recordings, these being that a complete record of the consultation is obtained, which can be reviewed by a number of researchers, and that participants (GP and patients) can comment on the footage afterwards. Coleman also noted, however, that bias may be introduced to research involving the use of video, in that it may restrict access to certain groups of GPs or patients, namely those that have different attitudes to those

that do not consent to being recorded. Coleman concluded therefore that video recordings should be used with caution as a research method.

A number of studies that have incorporated video recording of the consultation have investigated GP use of the computer, and its impact on the doctor-patient relationship (Als, 1997; Pearce, Trumble, Arnold, Dwan, & Phillips, 2008; Pearce, Walker, O'Shea, 2008; Pearce, 2011). Pearce et al. (2006) proposed that with the introduction of computers to the consultation, the balance of power in the doctor-patient relationship is altered, with a shift away from a patient-centred approach. Pearce et al. (2008) examined the opening period of consultations in order to describe the relationship between doctor, patient and computer. Twenty GPs who were considered significant computer users were recruited to participate in this study. One hundred and forty one consultations were video recorded and the opening sequence analysed using a dramaturgical framework (Pearce et al., 2008a; Pearce et al, 2008b; Pearce, 2011). Dramaturgy was developed by Goffman (1971, 1974, 1982), and involved viewing social interactions like a theatre, with a stage, actors, and props. According to this theory, humans interact with each other based on the setting, and according to the script of each of the actor's perceived roles. Pearce et al. (2008a) viewed the consultation room as a stage, and the doctor and patient the actors. Pearce et al. found that the computer became the third party in the consultation, so that there were now three actors involved: the patient, the doctor and the computer. Pearce et al. referred to this new relationship as triadic because interactions occurred between all three parties. The business of the consultation could not get underway until all three parties were engaged (Pearce et al., 2008a). That is, the doctor and patient had completed their introductions and social exchange and the doctor had turned to the computer to bring up the patient's record. Pearce et al. stated that the computer becomes involved in, and influences the negotiations between doctor and patient. Pearce et al.'s observational study has its limitations, however, in that it is not representative of GP performance. This research does not take into consideration GPs that may not be as technically minded as those that participated in this study, and use the computer less than others during the consultation. The importance of Pearce et al.'s work, however, cannot be underestimated because it is vital for the success of the consultation, that interaction between the doctor, patient and computer is better understood.

Deveugele et al. (2004) used video recorded consultations when investigating features of the consultation, in particular features of short, moderate and long consultations. Deveugele et al. analysed 2801 patients being consulted by GPs and found that during long consultations psychosocial issues were more likely to be addressed by GPs whereas short consultations were task related. Deveugele et al. stated that GPs allow less time for the doctor-patient relationship during short consultations as they ask patients questions but allow less time to provide patients with information. This international study, in which samples were taken from six different countries, involved rigorous techniques in that 20 consultations were required from each of the 183 participating GPs, with the first three consultations excluded to avoid bias. Additionally four observers were trained to analyse the video, and received ongoing training until they showed they could sufficiently rate consultations the same. However, the participating GPs were not representative of their country, in that there were more GPs from urban areas, more female GPs, and more GPs with lower workloads than the average GP in their respective countries. This study highlighted how the development of a relationship between the doctor and patient during the consultation takes time, and that patient concerns that rely heavily on this relationship, such as psychosocial issues, generally take longer than other consultations. Additionally, a task-oriented approach to the consultation may not allow enough time for development of the doctor-patient relationship.

Measurements of patient satisfaction, patient perceptions and patient preferences have also been widely utilised in consultation research with particular emphasis on communication (Edwards, Elwyn, Smith, Williams, & Thornton, 2001; Ford et al., 2006; Little et al., 2001b; Little et al., 2001c; Stewart et al., 2003; Street, Gordon, & Haidet, 2007; Street, Krupat, Bel, Kravitz, & Haidet, 2003; van Dulmen, Verhaak, & Bilo, 1997). These studies suggest that measuring patient perceptions is as important as analysing GP behaviour during the consultation (Ford et al., 2006). Ford et al. (2006) combined video recordings of GP behaviour with measurement of patient preferences in their investigation of opportunities for decision-making during the general practice consultation. Ford et al. were trying to determine the skill sets of GPs that could meet patient's preferences versus those that could not. The author's video recorded consultations and invited patients to complete a questionnaire after the consultation. The video recordings were assessed using the Oxbridge Rating

Scale (Morris, 1992), which determined the flexibility of the GP's communication style. Ford et al. observed that most decisions made during the consultation were generally GP led. Additionally, some GPs had a more flexible communication style than others, which was associated with better interpersonal skills. Ford et al. stated that the study highlighted that patients overestimate the degree to which they are involved in decision-making during the consultation, and that patient's perceptions were influenced by the communication style of the GP.

Following the description of their model of the consultation, Pendleton et al. (1984) described a technique for analysing GP's performance during the consultation with the use of video. This 'consultation mapping' technique allows for review of the sequence of the consultation by a GP for teaching purposes. The consultation map was designed to describe how GPs progressed during the consultation, and identifies attempts to complete each of the seven specific tasks (Pendleton et al., 1984). A map can be created from observation of the GPs video recorded consultation, which is then provided to GPs for self-assessment and reflection. The development of this useful technique allowed students and GPs to observe their behaviour and receive feedback in a systematic and visual way, which was previously overlooked.

Arborelius and Bremberg (1992) incorporated the consultation mapping technique into their investigation of positive and negative general practice consultations. During this study, both patients and GPs were asked to state whether a consultation was a positive or negative experience after it had been completed. The consultation maps of 46 consultations were reviewed and the elements of a positive consultation were determined. Arborelius and Bremberg (1992) stated that the determinants of a successful consultation were advancement towards a shared understanding of the patient's reason for attendance, and inclusion of the patient in development of a management plan. A limitation of this research, however, was the decision made as to whether a consultation was positive or negative, which involved subjective measures. The authors estimated both the doctor and patient's level of satisfaction with the consultation based on transcripts from interviews that were conducted after the consultation. Participant satisfaction was not directly questioned during the interview. This raises questions about the reliability of the findings of the study, as the authors may have inaccurately classified participant's satisfaction with the

interview. Arborelius and Bremberg, however, described the usefulness of the consultation map in terms of researching the general practice consultation as it allows for visual representation of the point during the consultation in which certain tasks occurred.

Fossum and Arborelius (2004) also utilised the consultation mapping technique in an investigation of the way in which orthopaedic physicians manage consultations. Eighteen consultations, both initial and follow-up appointments, were video recorded and mapped. One week after the consultation, the video was played back to the doctor and patient on separate occasions for comment. The authors found from observation of the videos, and qualitative feedback from doctors and patients, that there was an association between patient involvement and patient satisfaction during the consultation (Fossum & Arborelius, 2004). Similar to the study of Arborelius and Bremberg (1992) this study also involved an estimate of participant satisfaction, made by one of the authors. Additionally, the recordings of the consultations were only analysed by one researcher. These limitations mean the findings were based on subjective measures, which limits the reliability of the study. However, this study is important in that it shows how the consultation mapping technique can be used to investigate the relationship between doctor and patient during the consultation. Fossum and Arborelius stated that the consultation map does not reflect clinical content during the consultation but communication between doctor and patient.

These studies show how video recordings can be utilised to observe interaction between the doctor and patient during the consultation, and that by creating a consultation map the GP can be provided with visual feedback about their performance. Additionally, particular aspects of the consultation, such as the relationship between the doctor and patient, can be explored by comparing the video and subsequent consultation map, with feedback obtained from both GPs and patients after the consultation.

1.10 Simulated consultations and standardized patients

The use of simulated consultations is also a popular technique for observing GP behaviour (Beullens, Rethans, Goedhuys, & Buntinx, 1997; Sanson-Fisher & Poole, 1980; Vu & Barrows, 1994), particularly when consultations are video recorded

(Edelstein & Ruder, 1990). Simulated consultations involve the use of actors (either professional or non-professional) who play the role of patients. Simulated patients have been described as a live and interactive simulation of patient problems (Vu, Steward, & Marcy, 1987). Vu and Barrows (1994) stated that simulated patients are trained to portray clinical problems. Simulated patients have been utilised in medical teaching and research for over 30 years (Beullens et al., 1997; Hannay, 1980; Wallace, Rao, & Haslam, 2002). Simulated consultations using actors provide the realistic nature of the general practice consultation for research purposes without intruding on real life scenarios. Simulated patients often present to medical students during practical examinations (Vu & Barrows, 1994). Rethans and van Boven (1987) stated that the use of simulated patients accurately captures the performance of GPs in practice.

Cleland, Abe, and Rethans (2009) noted however, the important difference between a simulated patient versus a standardized patient. These authors note that these terms are often, incorrectly, used interchangeably (Cleland, Abe, & Rethans, 2009). A simulated patient is one in which the signs and symptoms of an actual patient are presented (Cleland, Abe, & Rethans, 2009) while a standardized patient is one in which health subjects are trained to repeatedly portray a particular scenario (Rethans, Gorter, Borkken, & Morrison, 2007). Wallace (2007) stated that the use of standardized patients means that each participant faced with a particular standardized patient is presented with the same challenges.

Beullens et al. (1997) reviewed the literature on standardized patients in general practice research. Beullens et al. stated that the advantages of the use of standardized patients are that it provides information about the GPs performance and allows different subjects (GPs) to be presented with the same scenario. Similarly, Cleland, Abe, and Rethans (2009) stated that standardized patients are readily available and can be coached to portray a wide variety of medical conditions. Beullens et al. noted the disadvantages, however, are the limitations on conditions that can be portrayed due to the physical examination required in a general practice consultation, and the difficulty in seeing the actor-patient on more than one occasion, meaning that the full patient journey with the GP cannot be explored. Wallace (2007) in her text on how to coach standardized patients argued however, that a wide variety of physical

examinations could be portrayed with thorough preparation and readiness. This involves detailed discussion of the disease portrayed with the actor, the examinations most likely to be performed, and the results that should be shown (Wallace, 2007). Similarly, Bokken et al. (2009) piloted a program in medical education where students were required to consult a standardized patient on a recurring basis in order to allow students the opportunity to provide continuity of care. Bokken et al. showed that despite a longitudinal simulation being logistically taxing it is in fact possible.

A number of other disadvantages were described by Beullens et al. (1997) relating to the actor-patients and include the difficulty in developing a realistic scenario; the amount of time necessary to train actors on the scenario; and ensuring the scenario is portrayed consistently each time. Cleland, Abe, and Rethans (2009) stated that the use of standardized patients can be costly financially but also in terms of time required to create, train, and administer. Beullens et al. also noted the fact that after repeated performances actors can develop psychological problems as they may become emotionally affected by the illness. More recently, Wallace (2007) outlined how to become a coach for standardized patients, and provided details on how best to train actors to portray patients. Similarly, Cleland, Abe, & Rethans stated key factors required from standardized patients such as ability, suitability, and credibility; and gave advice on how to recruit and retain trained standardized patients. This literature highlights that although standardized patients can be time-consuming to initiate, there is plenty of information available to provide guidance on how best to utilise this methodology. Beullens et al. concluded that the use of standardized patients is a promising method for observing actual GP behaviour during the consultation.

May, Park, and Lee (2009) conducted a ten-year review of teaching and learning literature that utilized standardized patients. These authors found that despite the majority of studies reporting positive changes in knowledge, skills and attitude, many were unable to report changes in behaviour. Additionally, many studies lacked rigorous methodological designs (May, Park, & Lee, 2009). Similarly, Howley et al. (2008) evaluated literature in both medical education and research that incorporated standardized patients. Howley et al. developed a minimum reporting standard for these studies with experts in the field, and assessed the literature to these standards. Many studies lacked critical information, with the authors concluding that this

minimum reporting standard should be used to guide researchers and authors on how best to develop studies utilising standardized patients but also on how to report research findings.

Ram, Grol, Rethans et al. (1999) and Ram, van der Vleuten, Rethans et al. (1999) compared the use of video recordings of GP consultations (with real patients) with standardized patients in a simulated examination setting. Ram, Grol Rethans et al. found that video recording of GPs in their own practice with real patients was far superior to observation of GP behaviour in the simulations. This was because the consultations were more 'natural' for the GPs, and they were not as influenced by being observed compared to the simulations. These studies showed how GP consultation behaviour could be observed in their own environment. An effective technique that was utilised by these studies was the use of a pilot phase in which the first five video-recorded consultations that each GP conducted were not used for analysis. This ensured reliability of the results, as it allowed the GPs to settle in to their consultations and become familiar with the video recordings.

Cals et al. (2007) utilised a similar approach by observing GPs consulting in their own environment however, incorporated unannounced standardized patients. These are situations in which the GP is unaware of the date and time in which the standardized patient will present for a consultation. Cals et al. conducted a pre and post study to determine if GPs could improve and retain skills learned during a training session focussed on communicating with patients. These authors found their training program to be effective in improving GPs communication skills. Additionally, these skills were utilised six months after the training in the consultations with standardized patients. (Cals et al., 2007). Rethans, Gorter, Bokken, and Morrison (2007) reviewed the literature regarding the use of incognito standardized patients in doctor's own practices. Rethans et al. were surprised by the large number of studies that utilized incognito standardized patients however, noted the wide variation in the amount of details provided about the studies, particularly with regard to measuring the accuracy and consistency of the standardized patients.

Gibson et al. (2006) utilised video recordings of simulated general practice consultations in order to investigate prescribing behaviour. Prescribing decisions

were observed with the use of, and non-use of, a technological system to support prescription decision-making. Similarly, Emery, Walton, Coulson, Glasspool, Ziebland, and Fox (1999) and Emery et al. (2000) video recorded simulated consultations in order to investigate the use of a computer system designed to support genetic risk of familial cancers. Gibson et al. stated that by observing GP behaviour, they were able to identify the point during the consultation in which the GP made a verbal prescription prompting a treatment decision. The authors noted that this occurred early on in the consultation, a point at which the computer system was not utilised. Gibson et al. concluded that the software would need to be developed further to support the work practices of GPs, for which the software was designed.

Jiwa, McKinley, O'Shea et al. (2009) investigated the use of simulated consultations as a methodology to investigate the impact of interruptions to the general practice consultation. Similarly, Jiwa, McKinley, Spilsbury et al. (2009) examined the use of a new piece of computer software on GPs clinical performance during simulated consultations. The authors found that interruptions to the consultation, and the computer software, did not impact on the performance of the GP. These studies, however, highlighted the logistical challenges faced when conducting simulated consultations, however, provided ideas as to how to overcome these, including the use of professional media teams, and a clinical laboratory for consultation research.

More recently, Jiwa, Mitchell et al. (2010) utilised simulated consultations to develop a tool for GPs to proactively address the needs of carers of cancer patients, and to compare instruments for measuring GP consultation skills in the management of psychosexual issues in cancer (Jiwa, O'Shea et al., 2010). Similarly, Halkett et al. (2011) investigated GP competence of managing patients with cancer-related problems that may benefit from radiotherapy. These more recent studies involved the use of a professional media team to record the consultations at the GPs own practice. All of the above mentioned simulated consultation studies, measured the clinical competence of GPs using the Leicester Assessment Package (LAP), a technique that has been shown to be a reliable and valid measure of GPs consultation performance (Fraser, McKinley, & Mulholland, 1994; McKinley, Fraser, van der Vleuten, & Hastings, 2000; Fraser et al., 2004). Jiwa, O'Shea et al. (2010) found that GP's clinical competence in the management of psychosexual problems associated with

cancer varied significantly on different measures, while Halkett et al. (2011) noted that patients with cancer-related problems are often not advised or referred for radiotherapy. The findings of these studies indicate that the use of simulated consultations in primary care research can prove successful in exploring GP behaviour and the conduct of the consultation. Although these studies focused on GP clinical competence, other aspects of consultation behaviour can also be explored using this method. Simulated consultations are therefore useful for research purposes in that particular aspects of GP behaviour during the consultation can be observed and understood.

1.11 Stimulated recall and Joint Interpretive Forums

Stimulated recall and Joint Interpretive Forums are techniques that involve the use of video recordings, and are also useful for investigating particular aspects of health professional behaviour. Saba et al. (2006) utilised video recordings of consultations in their research into shared decision-making in primary care. Eighteen general practice consultations were video recorded, analysed and coded by the researchers. Sections of the coded video, where decision-making was occurring during the consultation, were played back to GPs and patients for comment. Saba et al. described the play back of consultation footage as a videotape-triggered 'stimulated recall' session. Stimulated recall utilises video footage as a prompt to draw out participants' subjective experiences of the consultation (Saba et al., 2006). The responses to the stimulated recall were coded and combined with findings from the video recordings. Saba et al. found that GPs and patients had different experiences with regard to decision-making in the consultation, and that the relationship between the doctor and patient influenced these experiences. The authors found that shared decision-making could be classified into four groups: full engagement, simulated engagement, assumed engagement, and non-engagement. Simulated and assumed engagement described situations where the GP and patient did not communicate effectively and made assumptions about each other's understanding of the symptoms or illness. This study has its limitations, however, in that only three GPs were recruited to participate using a convenience sampling technique, which raises questions about the ability to generalize the results to other GPs. Despite these limitations, this study is important in that it utilised a new methodological technique

in order to understand the relationship between the patient and GP, by observing and considering both participants' experiences.

Coleman and Murphy (1999) also investigated GPs' decision-making during the consultation incorporating video recordings and stimulated recall. Coleman and Murphy examined GP's decisions to discuss smoking during consultations with patients who smoked. The researchers video recorded consultations, and played selected consultations back to GPs prior to conducting a semi-structured interview. Coleman and Murphy stated that the video play back served as an 'aide-memoire' for the interview, and aimed to focus GPs on their consulting behaviour in order to make comment. Coleman and Murphy described difficulties in using video, and video playback as a research technique, including difficulty recruiting GPs, logistical difficulties in collecting the data, and the length of time taken to review the recordings. However, Coleman and Murphy noted that GPs were often surprised at how they appeared on the video because they were unaware of some aspects of their behaviour. GPs in this study also stated that from viewing the footage of their consultations they felt encouraged to analyse their own behaviour. The authors concluded that this technique would be most beneficial for research into aspects of the consultation that GPs take for granted or give little thought to (Coleman & Murphy, 1999). Coleman and Murphy's work was an important methodological development because it was the first to combine video recordings, stimulated recall and participant interviews in order to investigate a particular aspect of the consultation.

Als (1997) utilised these three methods in order to identify how the GP and patient behaved in regard to the computer. Als video recorded consultations for five participating GPs, and conducted interviews with these GPs and representative patients one week after the consultations. Als utilised stimulated recall during these interviews, by playing back video footage of the consultations in order to obtain feedback from both the GP and patient regarding behaviour during the consultation. The author found that GPs were often surprised at how they appeared on the video, and were unaware of the way in which they were using the computer to influence the flow of the consultation. The findings of this study are important in that they highlight that GPs were not aware of their behaviour until it was pointed out, and

they could observe, and comment on it. Als stated that this methodology demonstrated intent, by GPs, to change behaviour.

Iedema, Long, Forsyth and Lee (2006) incorporated the use of stimulated recall in a group setting during an investigation of clinician communication in a spinal pressure area clinic in a metropolitan hospital. The authors video recorded patient consultations, clinical case conferences, team meetings and ad hoc clinician discussions and played back edited video footage to the clinicians for reflection and comment. Iedema et al. found that clinicians were quick to respond to what they had seen on the video after it had been played, described as an outburst. The session was later described as a video reflexivity session, as it provided an opportunity to discuss the purpose of particular behaviour, and design new ways of doing things. This study highlighted how exploring the purpose of behaviours, through the use of video feedback, can bring about improvements or changes in the way that tasks are carried out. Iedema, Forsyth, Georgiou, Braithwaite, and Westbrook (2007) replicated these methods to explore and improve the way in which pathology laboratory scientists were performing tasks. The authors defined the outcomes of video reflexivity as being two-fold: reflection, which initiates discourse between those involved, and elicitation, whereby participants were able to redesign the way in which they conduct their work (Iedema et al., 2007).

Carroll, Iedema and Kerridge (2008) incorporated a video reflexivity session during an investigation into clinical communication within an intensive care unit (ICU). The authors stated that the video selected for playback during the session represented emergent themes derived from viewing of the video. Carroll et al. were surprised at how effective the session was in understanding practices, and that clinicians acknowledged that being confronted with the video footage allowed them to see their behaviour in a new way. The authors suggest that observing video recordings of our own behaviour can dramatically impact experiences (Carroll et al., 2008). Iedema and colleagues have continued to incorporate video reflexivity into their work in improving standards of clinical care, with particular focus on safety in health care (Iedema, Merrick, Kerridge et al., 2009; Iedema, Merrick, Rajbhandari et al., 2009). Iedema, Merrick, Kerridge et al. (2009) described the use of video playback much like an intervention, as it achieved change in practice. Iedema, Merrick, Rajbhandari

et al. (2009) stated that when clinicians watch footage of themselves they are interested in their strengths and motivated to address issues with their practice. These studies highlight how video, and video playback can be used to change behaviour because participants are forced to consider the way that they carry out particular tasks.

Mohrman et al. (2001) described group reflection, as a Joint Interpretive Forum (JIF). Mohrman et al. stated that JIFs bring people together to jointly reflect, discuss and interpret information. Participants can describe their own perspectives on a given situation, analyse their own behaviour and consider others perspectives resulting in an enhanced interpretation of the specific event (Mohrman, et al., 2001). Halkett et al. (2009) utilised a JIF during a multi-method investigation into the role of radiation therapists and radiation oncology nurses in providing information to patients. Key segments of video were played back to a group of radiation therapists, prompting discussion around the provision of information to patients. The session provided an opportunity for brainstorming as to how things could be improved, and a 'consultation' for patients with radiation therapists prior to commencing radiation therapy was proposed. Halkett et al. stated that the JIF allowed for triangulation of data collected from other methods in this investigation.

These studies incorporating the playback of video show that this method can be used innovatively to make changes to, and improve behaviour in health care. By combining the use of video recording and playback with other research techniques, a thorough understanding of the subject under investigation can be obtained. To date, however, these techniques have not been used to investigate GP or patient behaviour during the consultation, particularly the interaction between doctor and patient. Video playback could be used to observe, and prompt discussion with GPs and patients about their interaction during the consultation. This would enable further understanding of the complexities of the doctor-patient relationship, and prompt reflection and analysis of behaviour in order to make improvements to the general practice consultation.

1.12 Interruptions to the consultation

An aspect of the general practice consultation that affects the doctor-patient relationship, and requires further investigation is interruptions to the consultation. At present, very little research exists on interruptions to the general practice consultation. Dearden, Smithers, and Thapar (1996) stated that the lack of research on the effects of interruptions on the consultation is very remarkable. This paucity of research is due to the assumed in-frequency and small impact of interruptions to the general practice consultation. However, interruptions are thought to adversely affect the relationship between doctor and patient (Shvartzman & Antonovsky, 1992), therefore the quality of care that patients receive during the consultation. Chisholm, Dornfeld, Nelson, and Cordell (2001) stated that interruptions to health care have been infrequently studied.

Shvartzman and Antonovsky (1992) conducted one of the few existing studies on interrupted consultations, in a general practice in Israel. Shvartzman and Antonovsky noted that all consultations take place in a physical and social environment. The authors proposed that disruptions to this environment could affect the quality of communication between doctor and patient during the consultation, and could have implications for diagnosis, quality of treatment, and patient and physician satisfaction. Of 100 observed general practice consultations in one general practice surgery, 94 interrupted consultations were witnessed. Shvartzman and Antonovsky stated that interruptions were not rare, and were a major concern as the relationship between doctor and patient is a powerful therapeutic tool. In order for this relationship to be successful it should take place in a relaxed, uninterrupted context (Shvartzman & Antonovsky, 1992). The impact of interruptions should therefore be further explored. The authors noted, however, that in general practices in Israel, patient files are kept in the doctors consulting room, rather than in a reception area. Other staff wanting to access these files were the cause for a large number of the interruptions. Shvartzman and Antonovsky highlighted a number of questions for further research including the need to replicate the study in other countries, determine the impact of interruptions, and establish the best way to address them.

Dearden et al. (1996) conducted a pilot study to measure the frequency and source of interruptions for one GP in Wales. The authors were also interested in determining

the patient's view of the effect of the interruption. Dearden et al. found that just over 10% of the GP's consultations were interrupted. Three types of interruptions were noted: i) phone interruptions, ii) prescription or form interruptions, and iii) other. Patients who experienced interrupted consultations and a control group were asked to complete a questionnaire about the consultation after it was concluded. Twenty-percent of patients whose consultation was interrupted felt that the interruption had a bad effect on the consultation (Dearden et al., 1996). Forty-percent of patients whose consultation was interrupted felt that the consultation would have been better without the interruption (Dearden et al., 1996). The authors noted that 52% of patients in the interruption group felt the reason for the interruption was not important, and 18% had a strong negative response to the interruption (Dearden et al., 1996). In terms of continuing with the consultation, Dearden et al. found that most patients felt that both the GP and the patient did not have any problem in resuming the consultation after the interruption. The findings of this study are limited, however, due to the involvement of only one GP. This single case limits the ability to generalize the results to other GPs. Additionally; the details of the questionnaire were not provided which raises questions about the validity and reliability of the instrument used, and the findings of this research. Dearden et al. stated that this study needed to be replicated with other GPs and practices to determine whether others experienced the same results. The authors stated that the effect of interruptions on the GP needs to be further researched (Dearden et al., 1996).

Chisholm et al. (2001) compared the incidence of interruptions to work between emergency physicians and primary care physicians in the US. This study found that emergency physicians were interrupted more frequently than primary care physicians, although those in primary care were interrupted on average 3.9 times per hour. Chisholm et al. stated that this study highlighted that emergency and primary care physicians are frequently interrupted. Laxmison et al. (2007) also investigated interruptions in the emergency department (ED) and the potential risks that they may pose for patients due to human error. Laxmison et al. found that clinicians were frequently interrupted, requiring them to multitask. The authors stated that this increased the cognitive load for clinicians and had the potential to lead to errors (Coiera, Jayasuria, Hardy, Bannan, & Thorpe, 2002).

Parker and Coiera (2000) discussed the consequences of interruptions in the clinical setting and suggested that working in an environment in which interruptions commonly occur results in memory failure, leading to errors. Similarly, Reason (1990) in his work on human error stated that human memory capacity is very small, and that juggling a number of simultaneous tasks can overload memory. Interruptions may therefore be a source of potential error.

Flynn et al. (1999) conducted an observational study to investigate the impact of interruptions on dispensing of medication by hospital pharmacists. Flynn et al. video recorded the environment in which pharmacists dispensed medications to observe any interruptions or distractions to their work over a 23-day period. Additionally, one of the investigators inspected each prescription for errors when it was filled. Flynn et al. found that interruptions were associated with errors, when they were totalled over a half-hour period. However, there was no significant effect when total interruptions and total prescriptions were analysed. A limitation of this study was the need to replace tapes used for recording the pharmacist at work. This meant any interruptions that occurred during this time were not included in the study. Therefore the results may not be entirely accurate in reporting the occurrence of interruptions to hospital pharmacists. Despite this, Flynn et al. highlight the impact that interruptions can have on heath professionals, in particular the errors that can be made. Flynn et al. stated that staff in this environment should be trained to avoid interrupting their colleagues in order to help minimize errors.

Brixey et al. (2007) developed a method for categorising and analysing interruptions in order to determine the impact of such events on human behaviour, in particular, human error. Brixey et al. stated that interruptions are known to be detrimental to the performance of activities; therefore the impact of interruptions leading to human errors should be explored. Brixey et al. noted that the introduction of information technology in healthcare has led to an increase in interruptions to clinicians' workflow (Brixey et al., 2007). Brixey et al. argued that as the number of technologies utilised in health increases, the need to understand the impact of interruptions on workflow is heightened.

These studies highlight the impact that interruptions have on behaviour, and workflow in medicine, and the potential for error. With so few studies having been carried out in this area, further research into interruptions to the general practice consultation is warranted. Particularly, the impact of interruptions on the doctor-patient relationship, and GP behaviour requires investigation.

1.13 Rationale for this research

This aim of this research program was to explore GP behaviour during consultations. The overall aim was to better understand GP behaviour during the consultation, the doctor-patient relationship, and the impact of an interruption to the consultation. By further understanding the way that GPs relate to patients, particularly when interrupted, areas for improvement could be identified, and changes to behaviours made. The objective was to identify similarities and differences in behaviour when a number of GPs consulted the same set of patients. Byrne and Long (1976) noted specific consultation styles carried out by GPs, which varied little despite consulting a range of patients. This research attempted to identify GP consultation styles by observation of video recorded simulated consultations. Additionally, the impact of interruptions on GP behaviour, and the doctor-patient relationship was also explored. The literature suggests that interruptions are detrimental to the doctor-patient relationship, yet little research has been conducted to determine these assumptions are valid (Dearden et al., 1996). Toop (1998) stated that the importance of the relationship between doctor and patient cannot be overstated. Schvartzman and Antonovsky (1992) found interruptions to be frequently occurring while patients were speaking of their anxieties, pains and feelings, or even during physical examinations. The current research attempted to fill the gap in the literature regarding the impact of interruptions on the doctor-patient relationship during the general practice consultation.

By gaining insight into GP behaviour and the doctor-patient relationship, the findings of this research could enable changes in GP behaviour. These changes could lead to improved general practice consultations, resulting in better outcomes for patients, and improved health. Identifying a consultation style, and determining the impact of interruptions to the consultation may lead to greater awareness by GPs of their behaviour and interaction with patients. GPs may be able to learn from such

information, and make improvements to their behaviour. Street et al. (2003) stated that communication between patients and GPs can have a significant effect on quality of care and health outcomes (Street et al., 2003). Stewart et al. (1979), in their study of the quality of the doctor-patient relationship, found further evidence that aspects of the doctor-patient relationship have significant impact on patient compliance, satisfaction and recovery. Therefore changes to GP behaviour during the consultation may have the potential to result in greater patient compliance, leading to better outcomes for patients, and improved patient and doctor satisfaction with the consultation.

Three studies were conducted in this research program, each of which explored consultation behaviour from a different perspective. These were: i) observation of GP behaviour during simulated consultations; ii) GP and patient views regarding consultation behaviour, interruptions to the consultation, and the doctor-patient relationship; iii) GP and patient recollection and description of behaviour prompted by video footage (stimulated recall). Figure 1 shows the data collection methods used. The data used for Study 1 was collected in conjunction with two other projects investigating interruptions, and the development of a new piece of computer software, in which the researcher coordinated the simulated consultations.

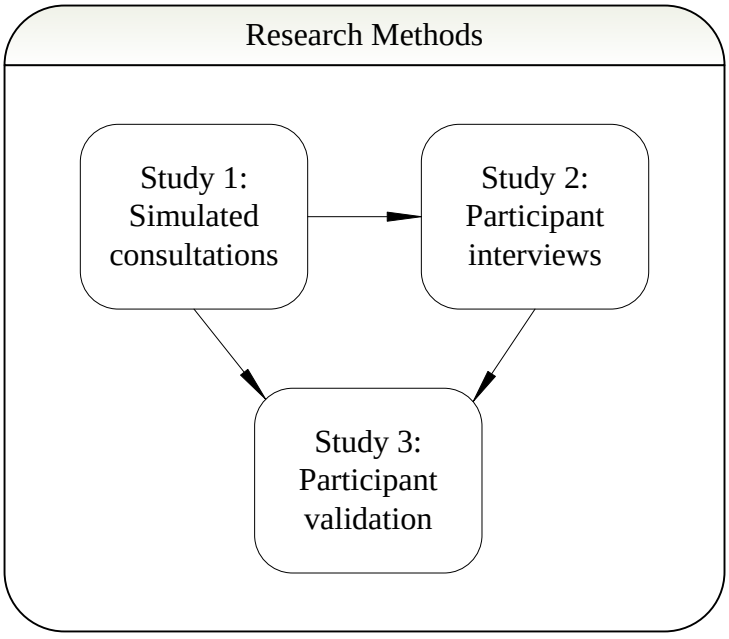


Figure 1.1. Summary of data collection methods for research program.

1.13.1 Study 1. Mapping General Practice Performances: An exploratory study using simulated consultations.

Aim. The first of the three studies combined the methods of video recorded simulated consultations with the 'consultation map' originally described by Pendleton et al. (1984). The aims of the study were to: i) determine whether it was possible to map the flow of the general practice consultation, using video recordings, based on this prescribed model; ii) identify any ritualized behaviour that could be described as a consultation style; and iii) determine the impact of interruptions on GP behaviour and the flow of the consultation.

The research questions guiding this study were:

1. Do GPs consulting the same actor-patients behave similarly in terms of the flow of the consultation (progressing through specific phases of the consultation)?
2. Does a GP consulting a variety of actor-patients behave differently with each actor-patient, with regard to the consultation flow?
3. Do interruptions to the consultation impact the flow of the consultation causing the GP to repeat aspects of the consultation?

Rationale. This exploratory analysis determined whether it is possible to compare the consultation style of individual GPs consulting various patients, and different GPs consulting the same patient. Consultation maps have previously been used to observe GP behaviour, however, this study involved the use of a modified consultation map whereby observation of the consultation involved reviewing progression through phases of the consultation based on the model by Byrne and Long (1976) rather than tasks. Using this technique, the current study compared GP behaviour using simulated consultations. The impact of interruptions on the flow of the consultation compared to uninterrupted consultations was also explored. Observation of GP behaviour during interruptions to the consultation has not previously been reported in the literature, a gap that this research attempted to address. This research is significant in that it further explores modelling of the consultation and provides insight into the effects of interruptions on the flow of the general practice consultation. This is important because the effect of interruptions on consultations has not previously been determined (Dearden et al., 1996; Shvartzman & Antonovksy, 1992). Shvartzman and Antonovsky (1992) highlighted the

importance of determining the impact of interruptions on communication, satisfaction and the outcome of the consultation. This research explored if interruptions are detrimental to GP behaviour during the consultation, and subsequently whether interruptions to the consultation should be avoided.

1.13.2 Study 2. The rituals of medicine: GP and patient perspectives.

Aim. The aim of the second study was to explore GP and patient views on simulated general practice consultations compared to real-life general practice consultations. The specific aim was to investigate the impact of simulated consultations on the doctor-patient relationship and the flow of the consultation. The research questions guiding this study were:

1. How does a simulated consultation affect the GPs ability to behave in a routine consultation?
2. How does a simulated consultation impact on the relationship between GP and patient?
3. How does an interruption to a consultation impact on GP and patient behaviour?

Rationale. The rationale for the study was to gain further understanding of GP and patient behaviour during the general practice consultation. In particular, the doctor-patient relationship, the impact of interruptions to the consultation, and the use of simulated consultations from both a GP and patient perspective. By further understanding these aspects of the general practice consultation GPs and patients could be made more aware of their own behaviour. GPs could learn from this self-awareness and make changes and improvements to their consulting behaviour such as up skilling in certain areas such as communication. Simpson et al. (1991) stated that effective communication between the GP and patient is central to a successful consultation. The purpose of this study was also to determine GP and patient perspectives on the use of simulated consultations as a method for observing consultation behaviour, and interruptions to the consultation. Beullens et al. (1997) reported that simulated consultations are a promising method for investigating and observing how the GP behaves in practice. Simulated consultations could potentially be used more prolifically to address key gaps in the literature regarding interruptions to the consultation.

1.13.3 **Study 3.** The rituals of medicine: Participant validation.

Aim. The aim of the third study was to explore participant perspectives of patient and GP behaviour during the consultation, using video footage as a prompt for discussion.

The research questions guiding this study were:

1. How does a GP describe their behaviour during particular phases of the consultation?
2. How does a patient describe their behaviour during particular phases of the consultation?
3. Can these perspectives be used to describe other GPs or patients behaviour during a consultation?

Rationale. The rationale for this study was to further understand why GPs and patients behave in certain ways during the general practice consultation and after an interruption to the consultation. In particular, patient and GP perspectives were sought in order to triangulate findings from Study 1 and 2. Understanding GP and patient awareness of, and perspectives on specific behaviour during the consultation will highlight areas that patients feel need to be addressed or improved, and those that GPs believe require attention. Additionally, aspects of the consultation that GPs and patients have differing opinions on will be indicated. In these circumstances, areas for improvement and greater awareness on behalf of GPs will be indicated.

CHAPTER 2

Study 1. Mapping the General Practice Performance: An exploratory study using simulated consultations

2.1 Introduction

The general practice consultation is a complex interaction. The consultation is the point where patients and doctors meet (The Royal College of General Practitioners Working Party, 1972). Patients present with undifferentiated illness (Levenstein et al., 1986; Middleton, 1989), which requires the GP to determine the underlying complaint during the course of the consultation and provide an appropriate management plan. Historically, the purpose of the consultation for the doctor has been to gather evidence, and give explanation and advice (Spence, 1960). The consultation must result in a plan for the application of therapeutic or diagnostic procedures. This need for a therapeutic plan is still required today, however, the doctor's responsibilities have more recently been described as to attend not only to the medical agenda, but also to the patient's agenda (Levenstein et al., 1986; Middleton, 1989; Thorsen et al., 2001). The doctor needs to clarify what issues the patient wants addressed during the consultation (Silverman, Kurtz, & Draper, 1998). It has been reported that the patient would like the GP to listen to, and address their concerns, and to provide access to a wider variety of medical services (Thorsen et al., 2001).

Traditionally, the consultation was a short encounter in which the patient presented symptoms and the GP responded with a prescribed treatment in accordance with the 'biomedical model' of the time (Pendleton et al., 1984). This model directed treatment at the patients' symptoms or disease without consideration of the patient and their experiences. The disease was seen as a physical impediment that required the doctor's skills to resolve it. However, Balint (1957) noted that a visit to the doctor was in itself therapeutic for the patient, to the extent that the effects were described as being similar to that seen from the use of prescription drugs. Following this, the focus of the consultation shifted from pure physical pathology to consideration of the patient's environmental, psychological and social issues (The Royal College of General Practitioners Working Party, 1972). This change in perspective required further understanding of the consultation.

The earliest model to outline the proceedings of the general practice consultation was that of the Working Party of the Royal College of General Practitioners (1972), which described the consultation as a clinical process involving six steps. Following this initial description, many models have subsequently been outlined indicating required behaviours and tasks for GPs (Byrne & Long, 1976; Cohen-Cole, 1991; Helman, 1981; Heron, 1976; Neighbour, 1987; Pendleton, 1984, 2003; Stott & Davis, 1979). Depictions of the consultation altered with the patient-centred medical consultation model described by Levenstein et al. (1986). This model built on the work of Balint (1957) and emphasized that the doctor and the patient have differing agendas that require integration during the consultation. The doctor's agenda is that of determining the patient's pathology, and providing an appropriate management plan. The patient's agenda, in contrast, is concentrated on thoughts, ideas, expectations and concerns (Stewart et al., 1995).

More recent attempts to describe the consultation have continued with this patient-centred focus and combine communication models with earlier clinical 'task' oriented models. Kurtz and Silverman (1996) detailed a model of the consultation known as the 'Calgary Cambridge' approach, which provides guidelines regarding communication between doctors and patients and on structuring the consultation. In addition to tasks such as determining the reason for the patient's attendance, guidelines on communication issues such as understanding the patient's perspective, involving the patient, and aiding accurate recall and understanding are outlined.

Despite the numerous existing models of the consultation, there has been no widespread acceptance of a superior or overarching theory (Bower et al., 2001). Researchers have utilised a number of techniques in attempts to develop these models and apply them to the clinical setting including analysis of consultation transcripts (Byrne & Long, 1976), reviews of audio-recordings (Kinnersley et al., 1999), and observation of video-recordings of consultations (Arborelius & Osterberg, 1995; Brown et al., 1986; Deveugele et al., 2004; Pendleton et al., 1984).

Pendleton et al. (1984) described a method for analysing GP behaviour in the consultation known as 'consultation mapping' from observations of video recorded consultations. The consultation map was designed to describe the progress of the

consultation and identify attempts to complete tasks during the consultation (Pendleton et al., 1984). Arborelius and Bremberg (1992) incorporated the consultation mapping technique to compare video-recordings of consultations that were described as positive or negative according to both patients and GPs. The authors attempted to describe factors that lead to successful consultations. Arborelius and Bremberg (1992) found that the determinants of a successful consultation were advancements towards a shared understanding of the reason for the patient's attendance, and inclusion of the patient in establishing a management plan. The authors described how the illustrative method of 'consultation mapping', could potentially be incorporated into general practice consultation research. These maps could demonstrate the point in time during the consultation at which each task of the model occurred.

The use of simulated consultations is also a popular technique for observing behaviour in general practice (Rethans, Drop, Sturmans, & van der Vleuten, 1991; Rethans & Saebu, 1997), which involves direct observation incorporating the use of video recordings (Beullens et al., 1997; Rethans et al., 1991; Rethans & van Boven, 1987). They have been described as consultations in which actors play the role of patients, and have been used in medical education and research for many years (Beullens et al., 1997; Hannay, 1980; Wallace et al., 2002). Vu et al. (1987) described these role-plays as live and interactive simulations of patient problems. Standardized patients have also been utilized in simulated consultations, whereby actors are trained to consistently portray a particular condition across a number of GPs (Cleland, Abe, & Rethans, 2009). These simulations of consultations provide the realistic nature of the general practice consultation for research purposes without intruding on real life scenarios. The advantages of simulated consultations are that different subjects (GPs) can be presented with the same scenario (Beullens et al., 1997). Rethans and van Boven (1987) stated that the use of simulated consultations accurately captures the performance of GPs in practice.

Simulated consultations have also been used more recently for research purposes (Bokken et al., 2009; Cals et al., 2007; Emery et al. 1999, 2000; Gibson et al., 2006; Jiwa, Mitchell et al., 2010; Jiwa, O'Shea et al., 2010; Ram, Grol, Rethans et al., 1999; Ram, van der Vleuten, Rethans et al., 1999). Gibson et al. (2006) conducted an

evaluation of a computerised decision support system in the United Kingdom by analysing video from simulated consultations. The doctor-patient-computer interaction was observed in this study in order to determine the impact of the decision support system on these dynamics. Gibson et al. found that by observing actual GP behaviour (n = 6) through the use of simulated consultations, they were able to modify and develop the computer software to further support the work practices of GPs as intended. Simulated consultations are therefore a useful method for observing actual performance of GPs.

Very little research exists on interruptions to the general practice consultation. Chisholm et al. (2001) stated that interruptions to health care have been infrequently studied. Shvartzman and Antonovsky (1992) conducted an investigation into interrupted consultations in general practice. Shvartzman and Antonovsky observed 100 general practice consultations in one surgery in Israel and noted 94 interrupted consultations, which was cause for major concern. The authors stated that the doctor-patient relationship is a powerful therapeutic tool, which in order to be successful should take place in an uninterrupted environment (Shvartzman & Antonovsky, 1992). Shvartzman and Antonovsky stated that their research highlighted the need to determine the impact of interruptions on the doctor-patient relationship. Similarly, as discussed in the introductory chapter of this thesis (p. 31), Brixey et al. (2007) argued that the introduction of information technology in healthcare has led to an increase in interruptions to practitioner workflow, and that as the number of technologies increases the need to understand the impact on workflow is also heightened. Dearden et al. (1996) stated in their pilot study that the effects of interruptions on the doctors' behaviour needed to be further researched.

2.1.1 Aims

The aim of this study was to determine if it was possible to map the flow of the general practice consultation, using video recordings, based on a prescribed model. By observing GPs consulting the same actor-patients, the aim was to determine whether the consultation was patient-centred or doctor-centred. The impact of interruptions to the consultation was also investigated.

The research questions guiding this study were:

1. Do GPs consulting the same actor-patients behave similarly in terms of the flow of the consultation (progressing through specific phases of the consultation)?
2. Does a GP consulting a variety of actor-patients behave differently with each actor-patient, with regard to the consultation flow?
3. Do interruptions to the consultation impact on the flow of the consultation causing the GP to repeat aspects of the consultation?

This study combined the methods of video recorded simulated consultations with the 'consultation map' originally described by Pendleton et al. (1984). A modified consultation map was used whereby observation of the consultation involved reviewing progression through phases of the consultation (Byrne & Long, 1976) rather than tasks. The consultation map technique was selected for use in this study because it allows for simple visual representation of the activity in the consultation. Byrne and Long's model of the consultation was selected because it describes consultation behaviour in a time-phased approach.

This exploratory analysis determined if it is possible to compare the consultation style of different GPs interviewing the same actor-patient depicting a hypothetical scenario. Although consultation maps have previously been used to observe GP behaviour, this study compared GP behaviour using simulated consultations. The impact of interruptions on the flow of the consultation compared to routine consultations was also explored. This research is significant in that it further explores modelling of the consultation by directly observing GP behaviour and provides insight into the effects of interruptions on the flow of the general practice consultation. This is important because education can be provided or modifications made to GP behaviour if interruptions are found to be detrimental to performance during the consultation.

2.2 Method

Ethics approval was granted by the Human Research Ethics Committee of Curtin University for all studies relating to this research (RD-01-07 & RD-26-06). The participant information sheets and consent forms pertaining to these studies are shown in Appendix A.

2.2.1 Design

The data used in this study was derived from two projects in which the researcher coordinated the simulated consultations. These projects utilised video recordings of simulated consultations in order to measure GPs clinical competence using the Leicester Assessment Package (LAP) (Fraser, McKinley, & Mulholland, 1994a,b). The first workshop collected baseline data for a study investigating the impact of a new piece of computer software designed to assist GPs with referral letters to specialists (Jiwa, McKinley, Spilsbury, **Arnet**, & Smith, 2009). The second workshop collected data for the DI (Diagnosis Interruptus) project, which investigated the use of simulated consultations as a methodology to determine the impact of interruptions on GPs clinical competence (Jiwa, McKinley, O'Shea, **Arnet**, Spilsbury, & Smith, 2009).

This research utilised the same video recordings of simulated consultations to observe GP behaviour. In addition, GP and actor-patient perspectives were sought following the completion of each workshop, and again at a Joint Interpretive Forum shortly after the simulated workshops. Perspectives were sought regarding GP behaviour, interruptions to the consultations, and the use of simulated consultations. This first study compared different GPs consultation behaviour when presented with the same patients. The variables of length of consultation, time on each phase of the consultation and number of transitions between phases during the consultation were measured.

2.2.2 Participants

Nine General Practitioners were recruited to participate in the simulated consultations. Seven of the participating GPs were male and two were female. Table 2.1 provides a summary of GP demographics for participants who responded to a

follow-up survey. All GPs who responded (N=5) were aged between 30 and 49 years of age.

Six actors were recruited to participate in the simulated consultations. Twelve scenarios were developed for the study, six for each simulated consultation workshop. This number was based on the requirements of the two other projects conducted simultaneously (Jiwa, McKinley, O'Shea et al., 2009; Jiwa, McKinley, Spilsbury et al., 2009).

2.2.2.1 Recruitment.

GPs. General Practitioners were recruited from the Perth Metropolitan area. Recruitment was via advertisement at the Osborne GP Network (OGPN) and The Royal Australian College of General Practitioners (RACGP). The OGPN has access to 400 GPs (Osborne General Practice Network Ltd, 2008) and The RACGP has access to approximately 1000 in Western Australia (The Royal Australian College of General Practitioners, 2008). The only requirement for inclusion in the study was familiarity with Medical Director, GP clinical management software. No other criteria were applied. All GPs who responded were recruited to the study (response rate of 2%).

Table 2.1

GP Demographics

Characteristic	Number of GPs (N=5)
Number of years in practice	
<5	0
5-10	2
11-15	1
16-20	1
21+	1
Number of years in practice in Australia	
<5	2
5-10	2
11-15	0
16-20	0
21+	1
Practice location	
Outer metro	3
Metro	2
Employment status	
Full time GP	2
Part time GP	3
Quality Assurance and Professional Development training in communication skills	
Yes	2
No	3

Characteristic	Number of patients/cases
Number of patients seen per week	Range = 32-160 Mean = 96.4 (*SD* = 59.7)
Number of new cancer cases seen in last 12 months	Range = 2-10 Mean = 5.4 (*SD* = 3.0)

Actor-patients. The hypothetical scenarios were portrayed by actors during each simulated consultation workshop. Requirements for inclusion in the study were based around the 'patients' depicted in the scenario (e.g., appropriate age and gender) and the actor's availability. Experience was not a requirement for participation in the study, and many had little experience. None of the actors were professional actors. Actors did not have to perform an audition to be recruited to the study.

Actors were provided with a one-hour training session prior to each workshop. This training session was facilitated by a GP who was the Principal Investigator for the two studies conducted simultaneously, and co-facilitated by the researcher. The training session was conducted individually with each actor and focused on consistency of the performance. During the session the cases were read through together and discussed in detail with the actors so that any areas requiring clarification could be addressed. This included, how much information to give to the GP and when, and what questions the actors may be asked from participating GPs. This session also ensured that the actor understood the intent of the scenario and the patients wants and needs from the GP. Towards the end of the session actors were given the opportunity to practice the case with the facilitator playing the role of GP.

The actors were also given information about the workshops during the training session, such as the address of the practice, the proceedings for the workshop and how to handle the physical examination (or lack of) during the consultation. The actors were provided with cards that contained results of the physical examination that GPs may have chosen to perform (in place of conducting a real examination). The actors were required to show certain cards to GPs upon request. Finally, actors were also provided with cue cards for use during the consultation in case they could not remember details of their scenario.

2.2.3 Materials

The hypothetical scenarios used in this study were created by an experienced GP. The GP was informed of the details of the study and requested to develop realistic cases involving cancer, and in some cases accompanied by a pre-existing medical condition. The GP was given information about the actors who had been recruited for the study in order to appropriately develop cases according to age and sex, and based

the scenarios on patients she had consulted in practice. These scenarios were checked for accuracy and realism by a second GP involved in coordinating the simulated consultations. This involved reviewing the scenario, checking the patient's age, proposed condition and symptoms, and clarifying names and doses of any medications.

Some of the scenarios described cases of cancer and were combined with an ongoing consultation issue (i.e., repeat prescription), which gave the patient a 'ticket of entry' to the consultation. The nature of these symptoms meant that in most cases the recommended course of action was to refer to a specialist. In order to arrive at that decision, the GP would have to conduct a thorough history and examination to obtain all the clues to the probable diagnosis. In addition, the GP would have to explain the reason for his or her concern to the patient and arrange in most cases, an urgent appointment. An example of a scenario is shown in Figure 2.1, and the demographics of the cases and the conditions portrayed are shown in Table 2.2. All the scenarios are detailed in Appendix B.

Jane is a 63yr old widow with one son. Jane doesn't drink alcohol and stopped smoking in her twenties. She is generally fit and healthy. Jane developed asthma after a bout of pneumonia in 1995 and uses Ventolin and Atrovent to keep it under control.
Jane visits her GP for a repeat prescription of her Atrovent puffers. She complains of a 'frog' in her throat and wonders whether the puffer can make you hoarse. She also feels a bit tired and has lost her appetite but blames it on the hot weather. Jane says she walked to the shops the other day and felt a bit breathless, she didn't have her Ventolin on her but it settled after a bit of a rest. She wonders whether she should increase her Atrovent usage as she has felt a bit off of late. She has lost 3kgs over the past five weeks, which she accounts for with her loss of appetite.

Figure 2.1. Scenario portrayed by actor-patient.

Table 2.2

Patient Demographics and Conditions (Hypothetical Scenarios)

Workshop 1			
Patient demographics	New diagnosis	"Ongoing care" problem	Request or task
Female, 52 yrs	Lung cancer	Hypertension	Repeat prescription for antihypertension medication.
Male, 55 yrs	Non cancer patient	Hypertension	Repeat prescription for antihypertension medication.
Female, 58 yrs	Colorectal cancer	Smoking	Advice to quit smoking.
Female, 60 yrs	Colorectal cancer	Diabetes	Routine referral to ophthalmologist.
Female, 40 yrs	Breast cancer	Tennis elbow	Review of symptoms of tennis elbow.
Female, 63 yrs	Lung cancer	Asthma	Repeat prescription.

Workshop 2			
Patient demographics	New diagnosis	"Ongoing care" problem	Request or task
Female, 48 yrs	Central Nervous System cancer	Hypertension	Request for repeat prescription of hypertension medication and review of stable hypertension.

Male, 58 yrs	Prostate cancer	Migraine	Patient sought a repeat prescription for migraine prophylaxis.
Female, 63 yrs	Lung cancer	Diabetes	Review of diabetes. Patient was concerned about a potentially infected abrasion.
Female, 59 yrs	Breast cancer	Breast check and PAP smear	Patient presented for PAP smear and breast check.
Female, 49 yrs	Non cancer	Blood results	Patient attending to get results of full blood count ordered at previous consultation for fatigue.
Female, 65 yrs	Colorectal cancer	Asthma	Presented for repeat prescription of asthma medication.

2.2.4 Procedure

Two simulated consultation workshops were arranged at a metropolitan GP surgery, which offered to make their premises available for this study. Whilst the premises may have been different from the ones at which the GP participants worked, it was felt that the consulting room was unlikely to be significantly different. The requirement for the study was that the GP and the actor-patient had access to a desk and a computer. No examination or special equipment was necessary as examination and investigation findings were presented to the GP on request. The doctors were also allowed to rearrange furniture and seating arrangements to fit with their preferred style of practice.

The two workshops ensured timely data collection, and allowed the participants to meet others interested in general practice research. The workshops were held over two evenings to impact as little as possible on the participant's day-to-day arrangements. During each workshop, six GPs were asked to consult each actor-patient as if they were a current patient. Six consultations were selected due to the size of the surgery and to ensure all the consultations were completed within a reasonable time period (two hours). Each GP was assigned to a consultation room and given an appointment schedule. Each actor-patient was also given an appointment schedule and visited each GP accordingly. Actor-patients were requested to present to each GP as though they were a current patient of the GPs practice, if not the current GP's patient. This meant both GP and actor-patient should behave as if they had some degree of existing relationship.

Fifteen minutes were allowed for each consultation in accordance with the Medicare Australia benefits scheme, which allows sufficient time for appropriate history-taking, examination and implementation of a management plan (Department of Health and Ageing, 2010). Consultations were commenced simultaneously and a bell was rung after 15 minutes to indicate the consultation should end, if it had not already done so. The sequence of consultations for each workshop is displayed in Appendix C.

Each consultation was video recorded using tripods in order to remove the need for a third person in the consultation room. The recorders were started prior to the first consultation and left running throughout the workshop. Recorders were briefly stopped after two or three consultations to change the tapes.

Each GP was provided with a medical record for each patient. Physical examinations were not conducted, and photographs or findings of examinations were presented on cards for the GP when requested. GPs were asked to document the consultation and management plan as per usual practice.

The first workshop was routine in nature, in that it contained no interruptions. This meant that observations of the GPs 'usual' consulting behaviour could be made. The second workshop involved a variety of everyday interruptions. These interruptions

were scheduled to occur two minutes into the consultation, and required both parties to disengage from the consultation for a period of two minutes. The interruptions are shown in Table 2.3. Assistance for conducting the interruptions was provided by additional non-professional actors. In the first example, the practice manager (actor) was notified when two minutes of the consultation had passed. The practice manager then knocked on the consulting room door and entered without waiting for a response. The practice manager told the GP about an emergency happening in the waiting room and that they could not locate the patient file. The GP was asked if they knew the whereabouts of the file and was asked to look for it on their desk. The practice manager also commenced looking around the consulting room. After two minutes had passed the practice manager told the GP they would have another look in the filing cabinet and left the room. In the second scenario, another actor rang the actor-patients mobile phone (a prop provided by the researcher), in which case they told the GP it was important and answered the call. After two minutes had passed the actor ended the call. Finally, in the third scenario, the practice manager (another actor) knocked on the consulting room door and opened the door without waiting for a response. The practice manager then informed the actor-patient that they had left their car lights on and suggested they go turn them off. The practice manager and actor-patient subsequently left the room, and the actor-patient re-entered after two minutes had passed.

Table 2.3

Interruptions to consultations

Workshop One	Workshop Two
- no interruptions	- practice manager entering the room urgently searching for a patient file - an urgent phone call on the patient's mobile - the patient leaving the room to turn their car lights off.

2.2.4.1 Data Analysis. Each consultation was reviewed and plotted on a chart (Figure 2.2). This involved playing back the video recordings and noting the time point during the consultation where a transition to a different phase was made based on the Byrne and Long model (1976). The six phases of Byrne and Long's (1976) model that informed analysis were:

Phase I: The doctor establishes a relationship with the patient.

Phase II: The doctor attempts to discover the reason for the patient's attendance.

Phase III: The doctor conducts a verbal and/or physical examination

Phase IV: The doctor and the patient consider the condition.

Phase V: The doctor, and occasionally the patient, details further treatment or further investigation.

Phase VI: The consultation is terminated. (Byrne & Long, 1976, p. 21).

Consultation: _____

Length of consultation: _____

Reviewer: _____

Phase	Time elapsed during consultation										
Phase I											
Phase II											
Phase III											
Phase IV											
Phase V											
Phase VI											
Time of transition											

Figure 2.2. Chart for mapping consultation.

The researcher and one of the research supervisors reviewed the first 10% of the recordings together. During playback the video was paused when either reviewer thought that a transition to another phase of the consultation had occurred. These transitions were determined by either the GP or patient's speech. For example, if the GP asked the patient "Are you taking aspirin?" this was noted as a transition to phase III: The doctor conducts a verbal and/or physical examination. The transition was discussed and consensus on the time of transition was achieved. Following this validation the researcher completed the review of the videos. The charts of the consultations were then converted to time series graphs using Microsoft Excel 2003.

The graphs for each GP and for each patient were compared descriptively and statistically. The dependent variables (DVs) were partitioned into two conceptually distinct groups:

Group 1 DVs: Length of consultation
Total number of transitions
Number of forward transitions
Number of backward transitions

Group 2 DVs: Time in Phase I
Time in Phase II
Time in Phase III
Time in Phase IV
Time in Phase V

Phase VI, terminating the consultation was excluded from the analysis as it was a point for the GP to get to, rather than to spend any time on. Therefore, the time spent on Phase VI was always zero.

Each group of DVs was subject to a multivariate analysis of variance (MANOVA) with GP as the independent variable. If the MANOVA was significant, follow-up univariate analyses of variance (ANOVAs) were conducted to identify the DVs that showed a GP effect. The follow-up ANOVAs were each evaluated at an uncorrected alpha-level of .05. Significant ANOVAs were followed-up with post-hoc Least Significant Difference tests (LSD) in order to locate the source of the GP effect.

2.3 Results

A total of 60 consultations (83%) were captured via video for analysis. Twelve recordings (17%) were lost due to technical failures (such as sound not being recorded or camera failures), all of which occurred during Workshop 2. Three GPs participated in both workshops; however, the recordings of only one GP were captured across the two workshops. Fifty-four of the 60 (90%) consultation recordings involved potential cancer scenarios. Twelve of the 60 (20%) recorded consultations involved interruptions.

By reviewing the recordings it was possible to graph the consultations indicating the flow of the consultation over time. If GP behaviour involved progressing to successive phases a straight line should be seen from Phase I through to Phase VI. However, each consultation showed variability in progressing through the phases of the consultation, often returning to a previously covered phase, as depicted by the changeability in the line on the graphs in Figure 2.4 – 2.28.

The mean length of the consultations for the two workshops was 650.37 seconds (*SD* = 154.34, Range: 332 - 913). The mean consultation length for Workshop 1 was 638.94 seconds (*SD* = 148.40, Range: 332 - 882) and the mean consultation length for Workshop 2 was 667.50 seconds (*SD* = 164.55, Range: 348 – 913).

2.3.1 Workshop 1

Thirty-six consultations were recorded for analysis during Workshop 1. For each consultation, a number of specific variables were measured. These were: length of consultation; total number of transitions; number of forward transitions; number of backward transitions; and time spent in each phase of the consultation. The transitions indicate the GP's changeability of behaviour during the consultation. If GPs progressed successively from Phases I through VI during the consultation a total of six transitions would be made.

The mean number of transitions between phases, during consultations in Workshop 1, ranged between 16 and 22. The mean number of transitions was 17.69 (*SD* = 4.64). Transitions forward (those that progressed from a previous phase to a latter

phase) and transitions backward (those that progressed from a latter phase to a previous phase) were also compared. The mean number of transitions forward was 10.89 (*SD* = 2.52) and the mean number of transitions back was 6.81 (*SD* = 2.28). These figures indicate that GPs would progress to a successive or latter phase, rather than a previous phase during the consultation.

GPs were then compared on the two groups of dependent variables (DVs) described above (p. 51). Each group of DVs was subject to a multivariate analysis of variance (MANOVA) with GP as the independent variable. The MANOVA for the Group 1 DVs was significant (F[15,90] = 2.38, p = .006, *eta squared* = .284). Each of the four DVs was then subjected to a follow-up univariate analysis of variance (ANOVA) to determine which of the DVs showed a GP effect.

The follow-up ANOVAs revealed a significant GP effect for number of forward transitions (F[5,30] = 2.63, p =.043, *eta squared* = .305). This indicates that the GPs varied in behaviour during the consultation with regard to the number of progressions to successive phases. Post-hoc Least Significant Difference (LSD) comparisons showed significant differences between specific GPs (GPc and GPa (*M*c = 13.33, *SD*c = 2.25, *M*a = 9.67, *SD*a = 2.74; p = .009), GPc and GPb (*M*c = 13.33, *SD*c = 2.25, *M*b = 10.17, *SD*b = 1.83; p = .022), and GPc and GPf (*M*c = 13.33, *SD*c = 2.25, *M*f = 9.83, *SD*f = 1.83; p = .012).

There was no significant difference found when comparing each GP's mean length of the consultations, the total number of transitions and the number of backward transitions. This suggests that the GPs behaved in a similar way with regard to these variables, and there is some evidence to suggest this behaviour was patient centric. That is, the consultation progressed according to the needs of the patients presented, rather than due to habits in consultation style on the part of the GP.

The MANOVA for the Group 2 DVs was also significant (F[25,150] = 2.57, p = .000, *eta squared* = .300). This indicates that GPs showed variability in the time spent on each phase during the consultations. There were obvious differences in behaviour between GPs. The follow-up univariate ANOVAs revealed significant GP effects for Phase I (F[5,30] = 3.22, p = .019, *eta squared* = .349), Phase II (F[5,30] =

3.81, $p = .009$, *eta squared* = .388), and Phase V ($F[5,30] = 3.49$, $p = .013$, *eta squared* = .367). There were no significant GP effects for Phases III and IV.

Post-hoc LSD comparisons were made across the statistically significant Phases: I, II, and V. The Phase I comparisons showed that one GP (GP f) spent significantly longer time relating to the patient compared to each of the other GPs (see Table 2.4).

Table 2.4

Least Significant Difference Comparisons of Length of Time on Phase I between GPs indicating Significant Differences with GP f (Workshop 1)

	Mean	Standard Deviation	P value
GP a	18.67	20.84	.006**
GP b	18.17	7.00	.005**
GP c	19.17	22.96	.006**
GP d	9.83	11.92	.001**
GP e	27.66	23.20	.025*
GP f	62.33	47.03	

Note: *$p < .05$, **$p < .01$

The Phase II comparisons showed that GP a spent a significantly longer time determining the reason for the patient's attendance than most other GPs (see Table 2.5).

Table 2.5

Least Significant Difference Comparisons of Length of Time on Phase II between GPs indicating Significant Differences with GP a (Workshop 1)

	Mean	Standard Deviation	P value
GP a	82.83	45.60	
GP b	35.17	12.95	.006**
GP d	26.00	13.52	.001**
GP e	23.83	12.81	.001**

Note: *$p < .05$, **$p < .01$

The Phase V comparisons showed significant differences between specific GPs in time spent advising patients on the management plan (see Table 2.6). Tables 2.6 and 2.7 indicate doctor idiosyncrasies that were not determined by the patients being consulted.

Table 2.6

Least Significant Difference Comparisons of Time Spent on Phase V between GPs (Workshop 1)

	GP b	GP c	GP e	GP f
GP b		$p = .011$*		$p = .022$*
GP c			$p = .002$**	
GP e				$p = .005$**
GP f				

Note: *$p < .05$, **$p < .01$

Table 2.7

Means and Standard Deviations for specific GPs (Phase IV, Workshop 1)

	Mean	Standard Deviation
GP b	161.67	80.55
GP c	290.83	87.08
GP e	132.33	40.78
GP f	276.33	78.51

The mean amount of time spent by GPs in each phase of the consultation during Workshop 1 is shown in Figure 2.3 (see p. 50 for list of phases). No GPs spent time on Phase VI as this involved terminating the consultation and was a point in the consultation to get to, rather than to spend time on. The least amount of time during the consultations was spent establishing a relationship with the patient. The maximum amount of time was spent conducting a verbal and/or physical examination. The mean amount of time spent on each phase, the upper and lower quartiles, and the corresponding minimum and maximum are shown in Figure 2.3.

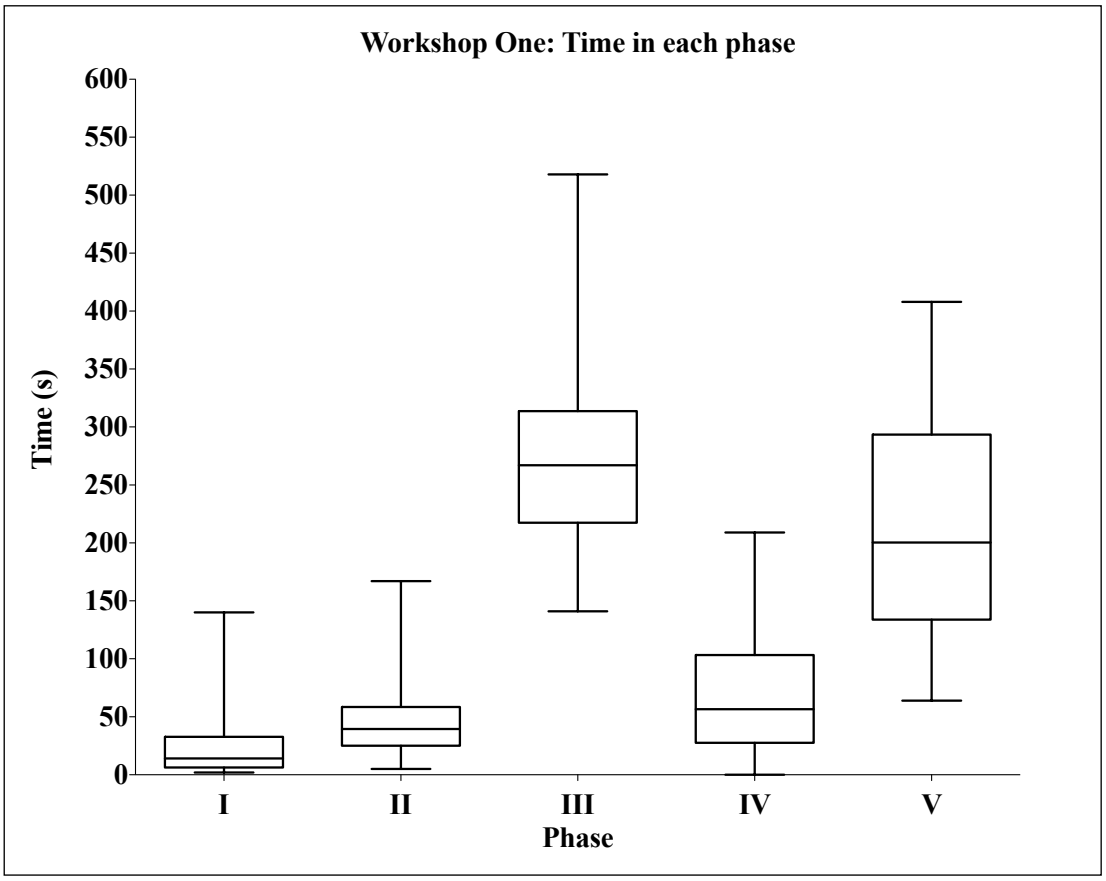


Figure 2.3. Time in each Phase Workshop 1.

During analysis of time spent on each phase, a method for determining phases that were skipped was derived. GPs that spent less than 10 seconds on a phase were acknowledged as skipping this specific phase. During 13 consultations, getting to know the patient was skipped (Phase I). In three consultations, determining the reason for the patient's attendance was skipped (Phase II). In one consultation, consideration by the patient and doctor of the cause of the condition was skipped (Phase IV). During one consultation, three phases were skipped in total. No GPs skipped the examination or management plan phases in any of the consultations (Phase III and V).

By reviewing the graphs created for each GP for the set of patients consulted during Workshop 1, it was possible to observe similarities in behaviour during the consultations. Figure 2.4 – 2.9 show the consultation maps for all patients consulted by GP d during Workshop 1. As these figures show GP d generally progressed through Phases I, II and III very quickly before returning to Phase I. In other words,

the GP introduced themselves to the patient, asked the patient the reason for their attendance and started on some specific examination questions. The GP then spent a little more time getting to know the patient before embarking on a rigorous examination of the symptoms. This examination often involved taking a history, considering the condition, and providing guidance or details of a management plan (as shown by the transitions between Phases III, IV and V). Finally, the GP would ask the patient if there was any other symptom or condition that needed to be addressed during the consultation before it would be terminated. All of which occurred at a similar time during the consultation.

Figure 2.10 – 2.15 show the consultations for actor-patient 5 by all GPs during Workshop 1. These figures show the variability that was experienced by the patient during the simulated consultations. For the most part, the consultations began in a similar fashion, however, there is evidence of variation of time spent in each phase and at what point during the consultation the transition took place. The total lengths of the consultations for this actor-patient vary, and little time is spent by most GPs, if any at all, getting to know the patient. Some GPs performed the examination proceedings as explained for GP d above. This involved history taking, considering the condition and outlining a management plan in quick and changeable succession. Another progressed from determining the reason for the patient's attendance to determining the management plan, in a repetitive fashion.

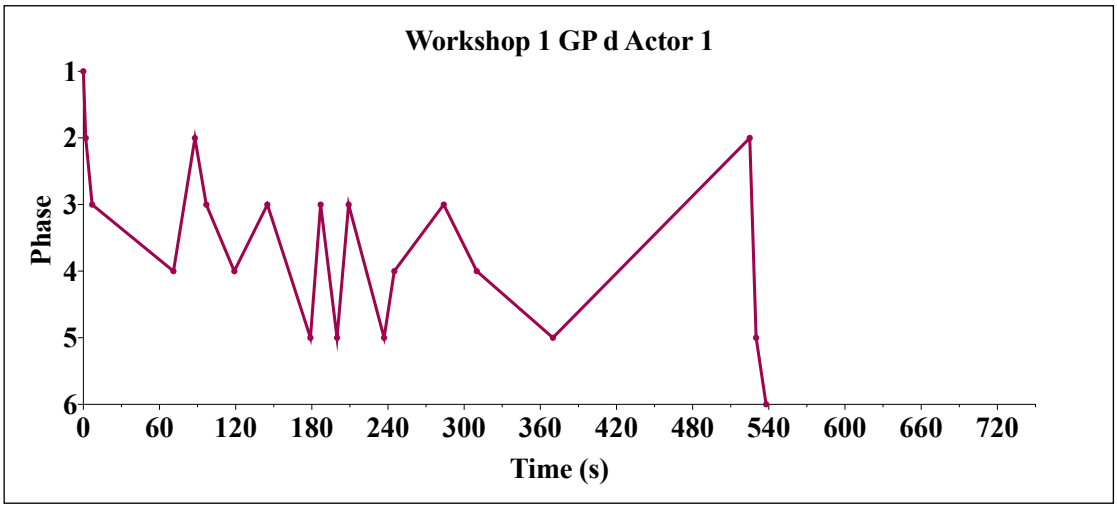


Figure 2.4. Graph of consultation between GP d and Actor 1 during Workshop 1.

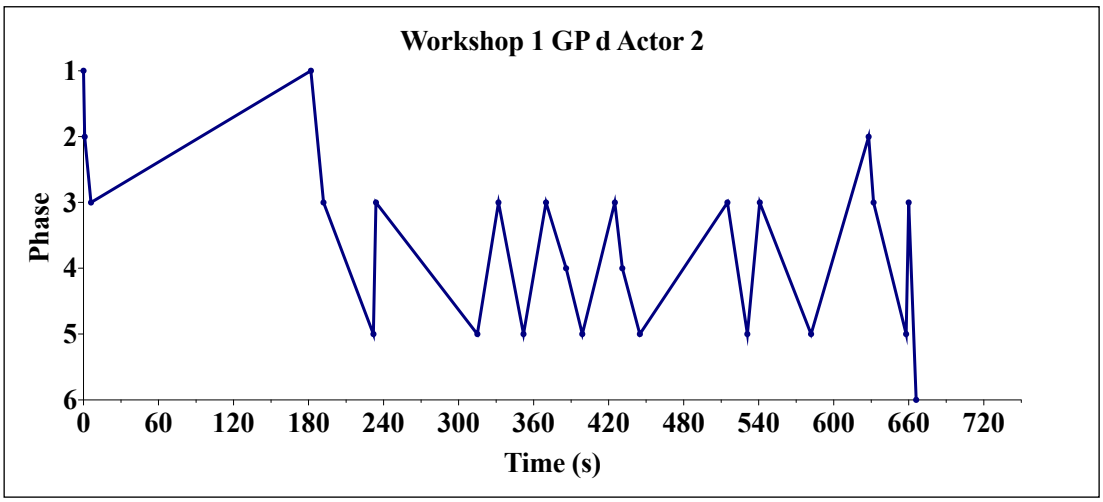


Figure 2.5. Graph of consultation between GP d and Actor 2 during Workshop 1.

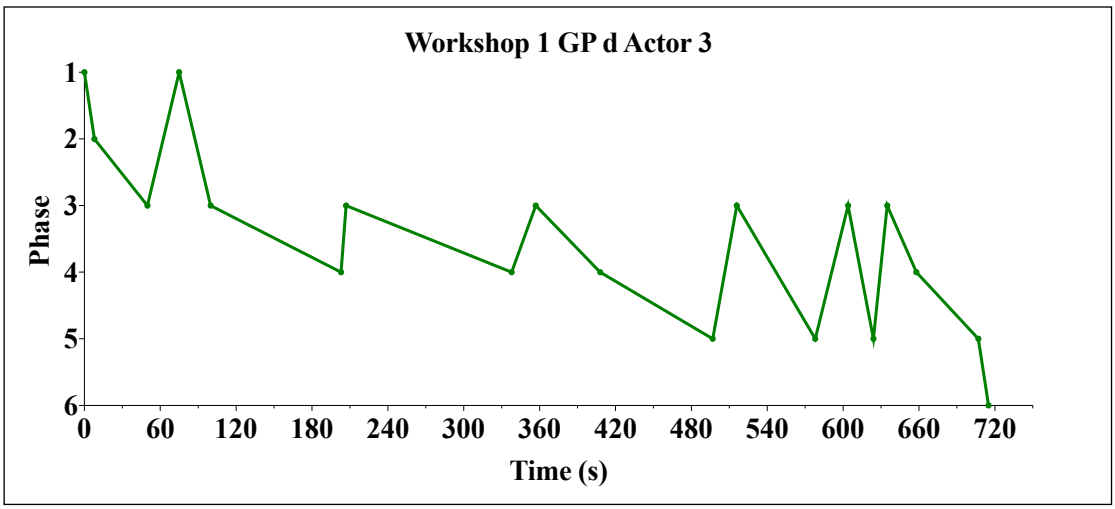


Figure 2.6. Graph of consultation between GP d and Actor 3 during Workshop 1.

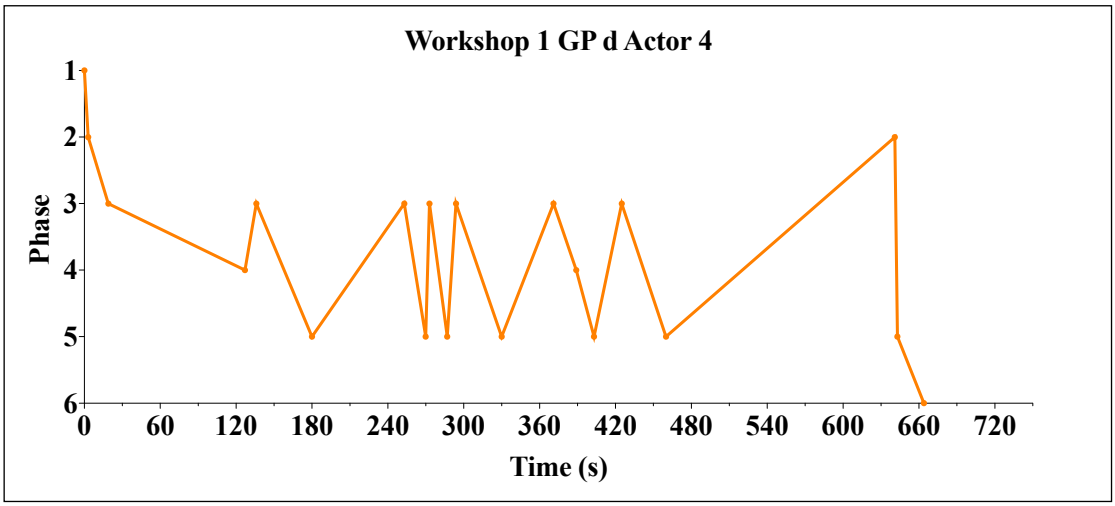


Figure 2.7. Graph of consultation between GP d and Actor 4 during Workshop 1.

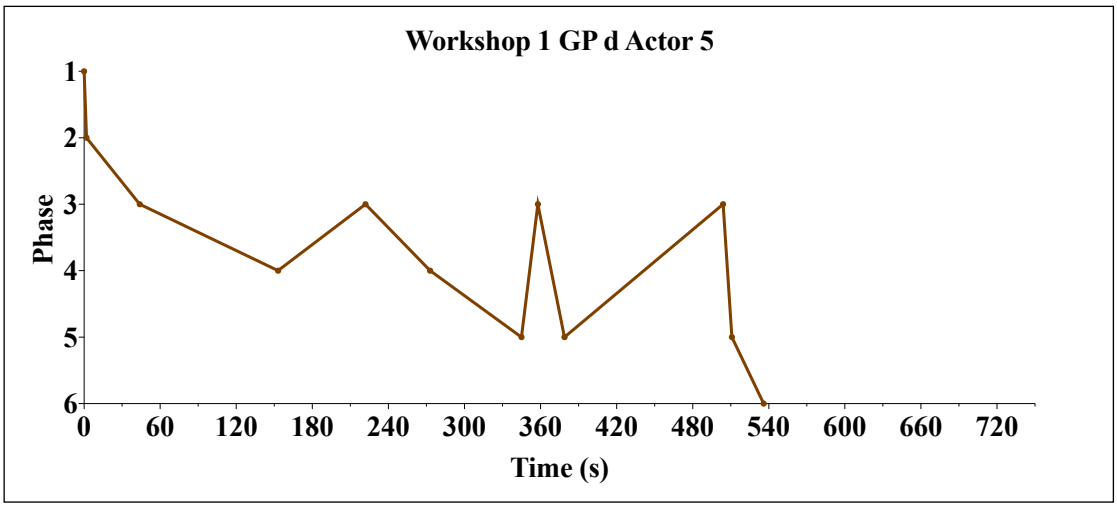


Figure 2.8. Graph of consultation between GP d and Actor 5 during Workshop 1.

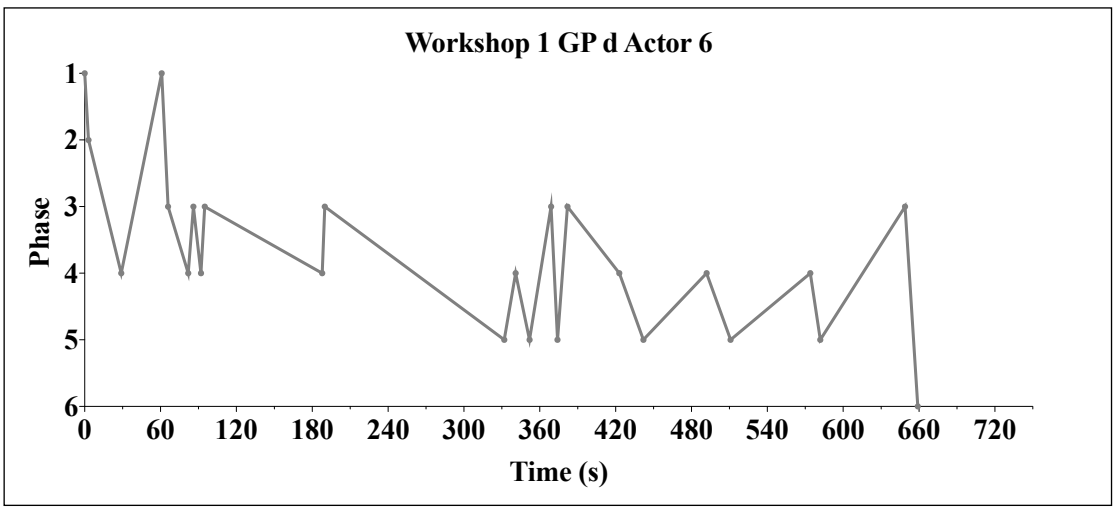


Figure 2.9. Graph of consultation between GP d and Actor 6 during Workshop 1.

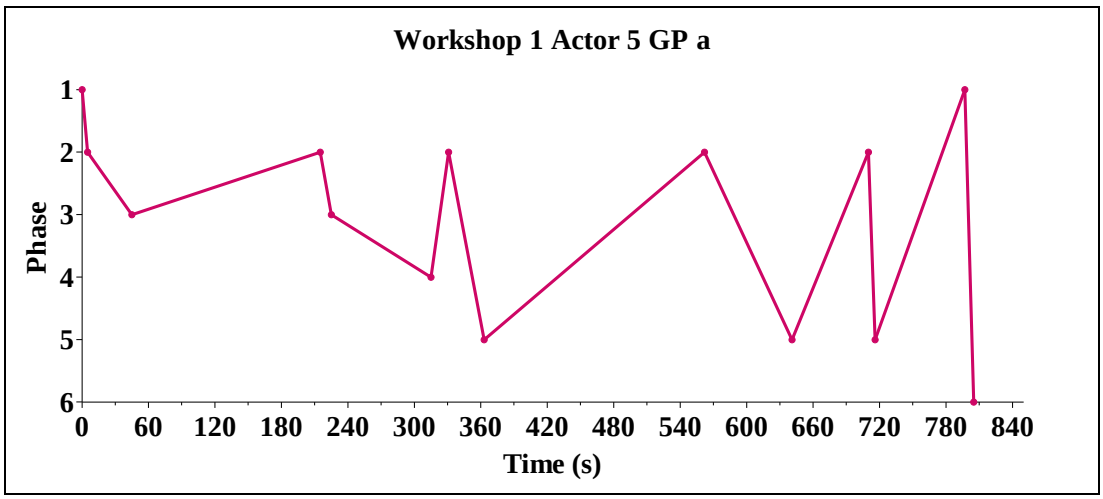


Figure 2.10. Graph of consultation between Actor 5 and GP a during Workshop 1.

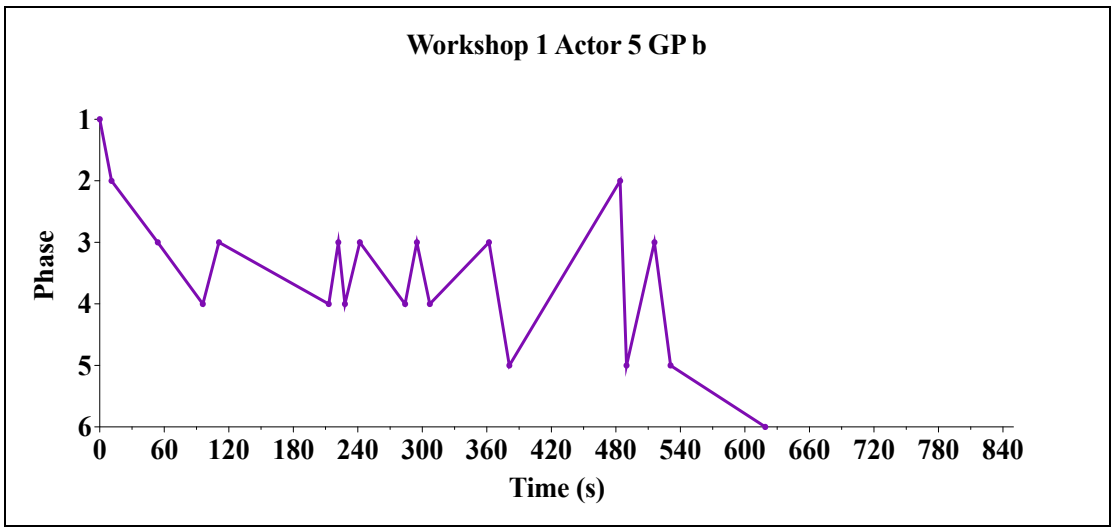


Figure 2.11. Graph of consultation between Actor 5 and GP b during Workshop 1.

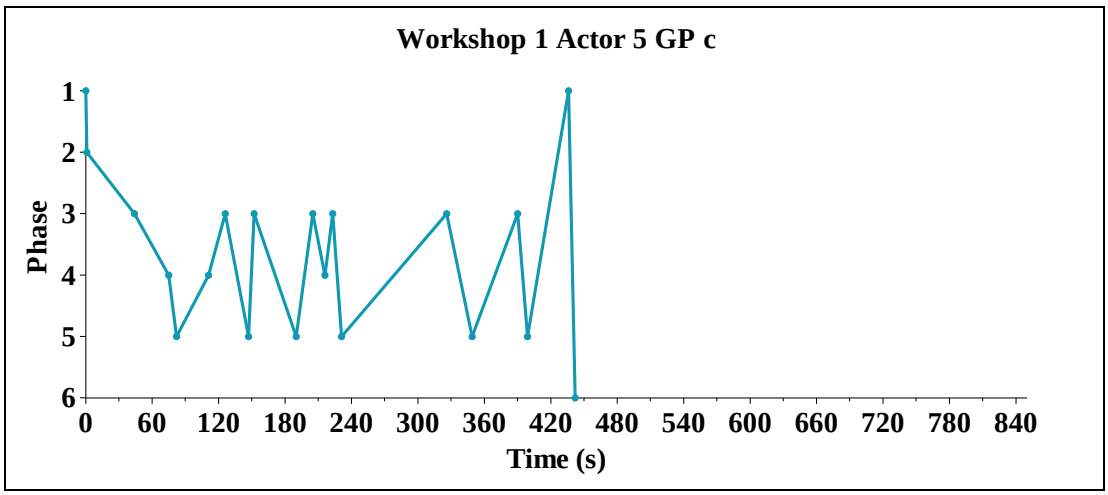


Figure 2.12. Graph of consultation between Actor 5 and GP c during Workshop 1.

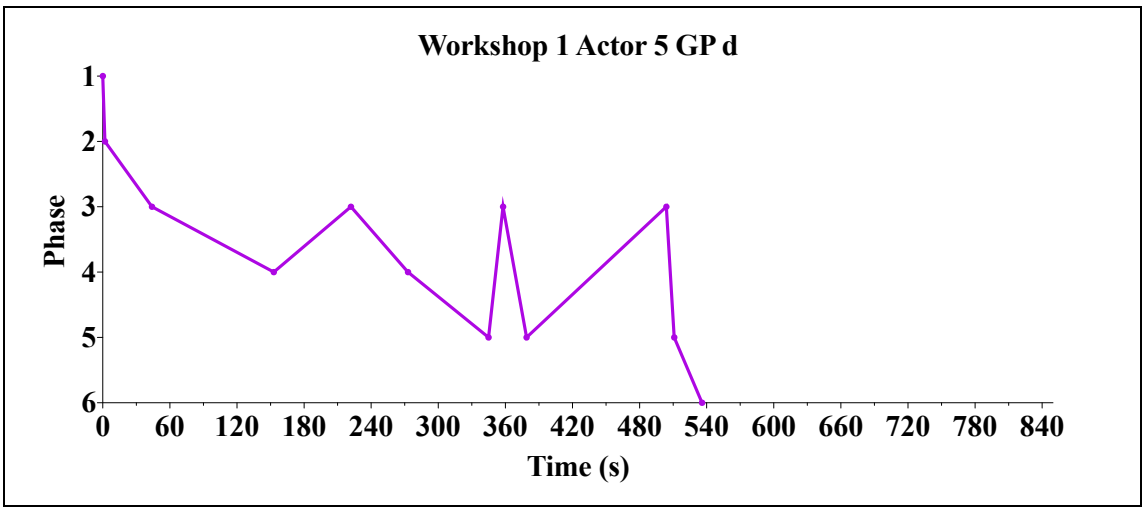


Figure 2.13. Graph of consultation between Actor 5 and GP d during Workshop 1.

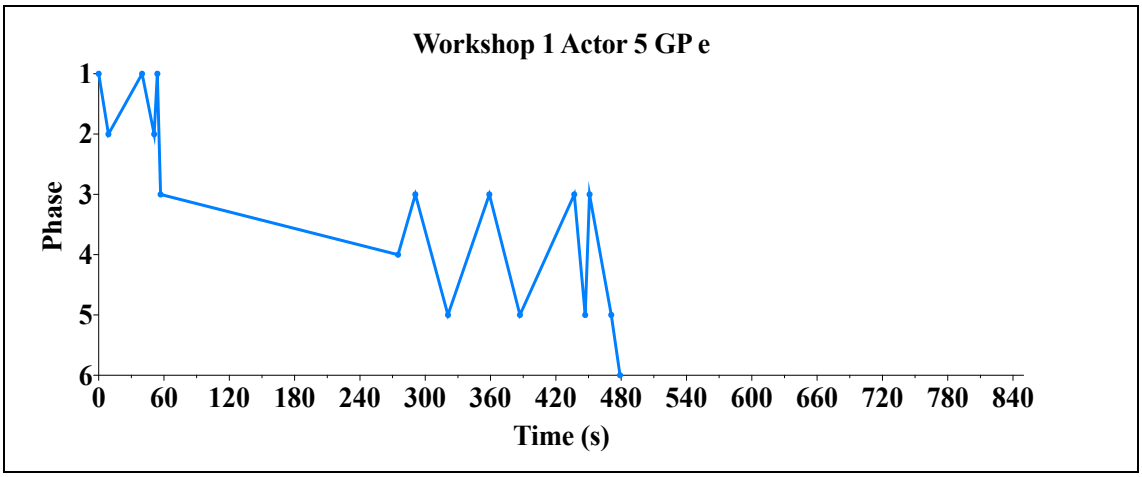


Figure 2.14. Graph of consultation between Actor 5 and GP e during Workshop 1.

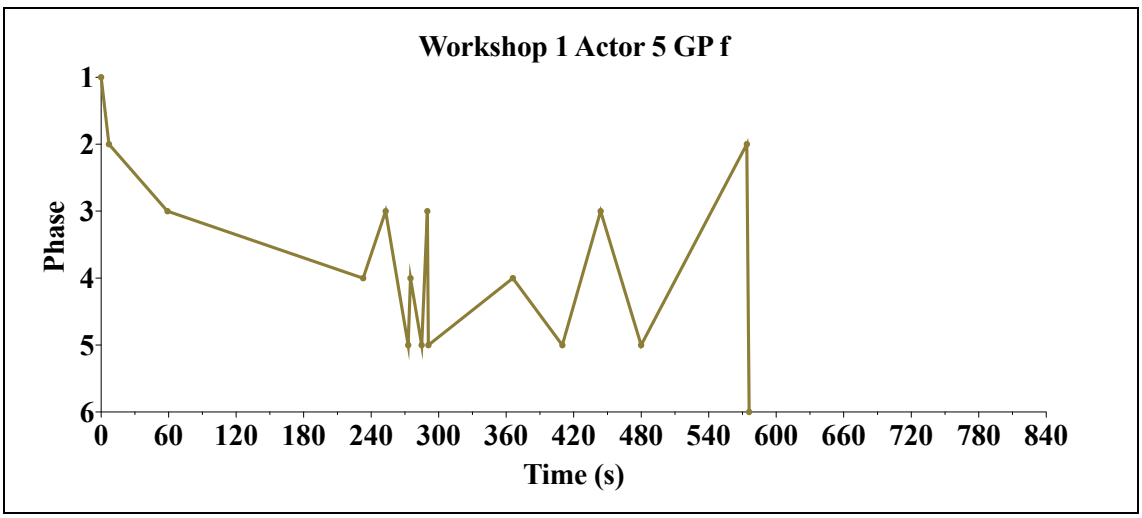


Figure 2.15. Graph of consultation between Actor 5 and GP f during Workshop 1.

2.3.2 Workshop 2

Twenty-four consultations were recorded for analysis during Workshop 2. Consultations during this workshop ranged between 348 and 913 seconds in length. The mean consultation length during Workshop 2 was longer than Workshop 1 (W2 *M*= 667.50, *SD* = 164.55; W1 *M* = 638.94, *SD* = 148.40). Where consultations were interrupted (*n* = 12) the mean consultation length was 702.75 seconds (*SD* = 170.95), while the mean consultation length for non-interrupted consultations was 632.25 seconds (*SD* = 88.08).

As per Workshop 1, prior to analysis, the dependent variables (DVs) were partitioned into two conceptually distinct groups.

Group 1 DVs: Length of consultation
Total number of transitions
Number of forward transitions
Number of backward transitions

Group 2 DVs: Time in Phase I
Time in Phase II
Time in Phase III
Time in Phase IV
Time in Phase V
Time in Phase VII

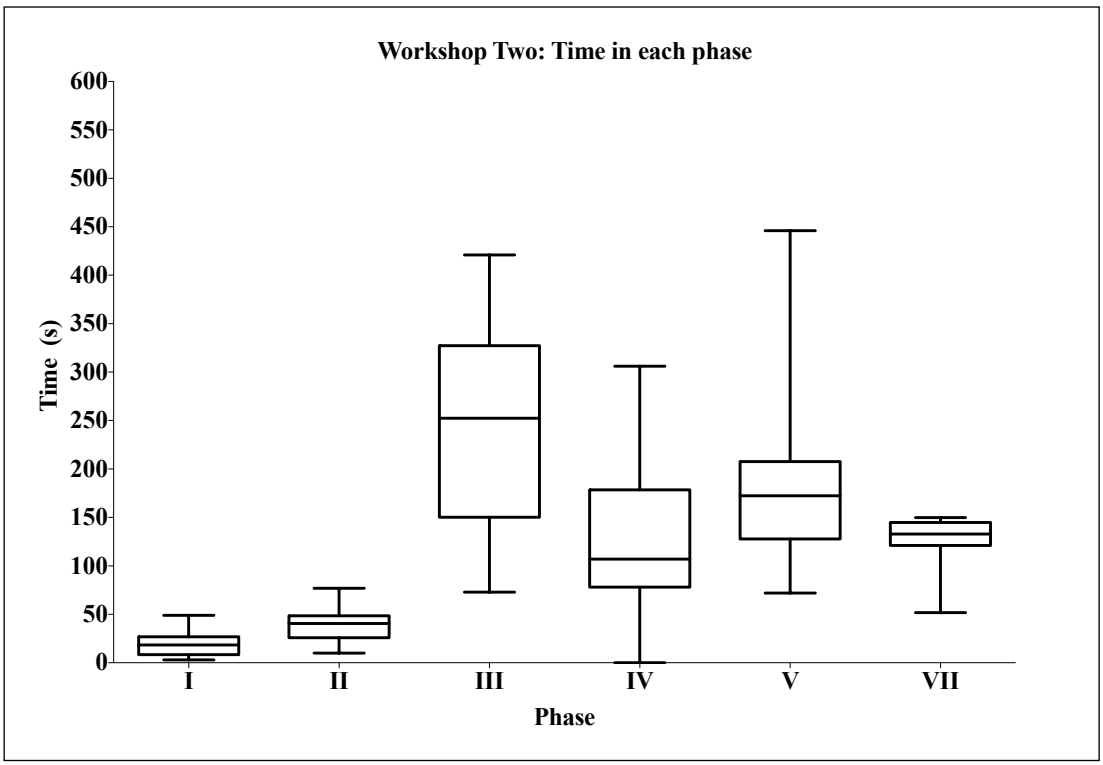
Phase VII was the time spent on an interruption during the consultation. As in Workshop 1, Phase VI was excluded from the analysis.

Each group of DVs was subject to a multivariate analysis of variance (MANOVA) with GP *and* interruption as the independent variables.

The MANOVA and follow-up ANOVAs for the Group 2 measures showed no significant effects (MANOVA: $F[12,16] = .449$, $p = .917$, *eta squared* = .252; ANOVA: Phase I: $F[2,13] = .184$, $p = .834$, *eta squared* = .027; Phase II: $F[2,13] = .578$, $p = .575$, *eta squared* = .082; Phase III: $F[2,13] = .419$, $p = .666$, *eta squared* = .061; Phase IV: $F[2,13] = 1.064$, $p = .373$, *eta squared* = .141; Phase V: $F[2,13] = .644$, $p = .541$, *eta squared* = .141; Phase VII: $F[2,13] = .426$, $p = .662$, *eta squared* = .061). These results

indicate that GPs spent a similar amount of time in each phase during the consultations, despite half of their consultations being interrupted.

The mean amount of time spent by GPs in each phase of the consultation during Workshop 2 is shown in Figure 2.16. As in Workshop 1, GPs spent the least amount of time on establishing a relationship with the patient and the most on examining the patient. The mean amount of time spent by GPs in each phase of the consultation during interrupted and non-interrupted consultations is shown in Figure 2.17.



Note: *Phase VII = Interruptions

Figure 2.16. Time in each phase Workshop 2.

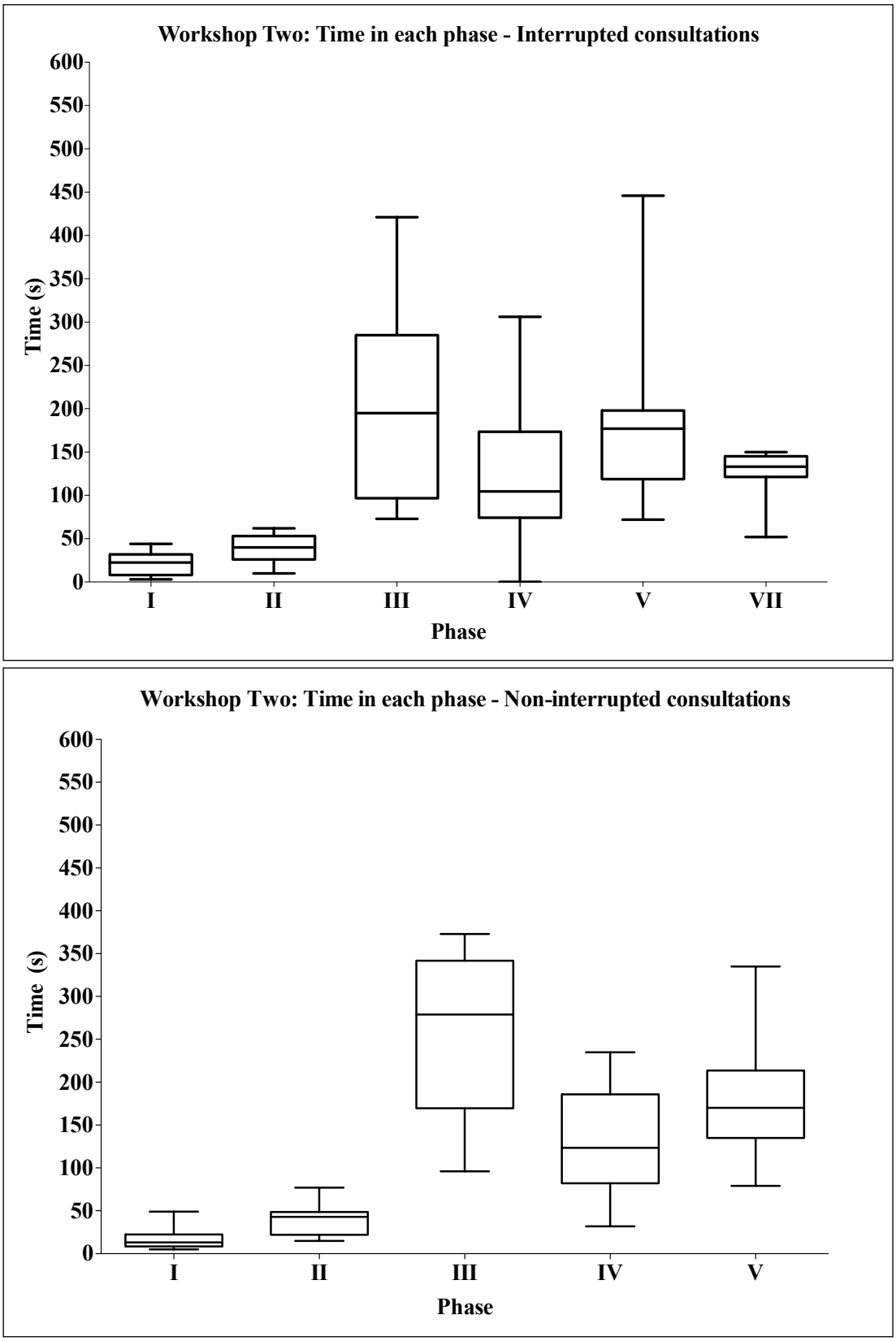


Figure 2.17. Time in each phase: Interrupted and non-interrupted consultations.

The GP x Interruption MANOVA on the Group 1 DVs showed a significant main effect for GP (F[9,60] = 3.89, p = .001, *eta squared* = .369). The follow-up univariate ANOVAs were all significant indicating significant GP effects for length of consultation (F[3,20] = 7.35, p = .002, *eta squared* = .524), total number of transitions (F[3,20] = 12.11, p = .000, *eta squared* = .645), number of forward transitions (F[3,20] = 11.73, p = .000, *eta squared* = .638), and number of backward transitions (F[2,20] = 10.86, p = .000, *eta squared* = .620).

The interaction between GP and interruption was also significant (F[9,38] = 2.31, p = .035, *partial eta squared* =.354). The follow-up univariate ANOVAs showed that the GP by interruption interaction was significant for total number of transitions (F[3,16] = 5.27, p = .010, *eta squared* = .497), and number of forward transitions (F[3,16] = 5.43, p = .009, *eta squared* = .505).

Post-hoc LSD comparisons across the GP main effect for length of consultation showed significant differences among specific GPs (see Table 2.8)

2.3.2.1 Length of consultation. Table 2.8 and 2.9 indicate that the GPs showed variability in the length of the consultations during Workshop 2.

The mean consultation length for each GP during interrupted and non-interrupted consultations is shown in Table 2.10 below. This shows that all GPs consulted longer when there was an interruption to the consultation compared to when there was not, although this was found to be not significant.

Table 2.8

Least Significant Difference comparisons of Length of Consultation between GPs

	GP d	GP g	GP h	GP i
GP d		$p = .028$*	$p = .163$	$p = .022$*
GP g			$p = .001$**	$p = .909$
GP h				$p = .001$**
GP i				

Note: *$p < .05$, **$p < .01$

Table 2.9

Mean and Standard Deviations for GPs Length of Consultations

GP	Mean	Standard Deviation
d	727.50	107.42
g	560.67	157.71
h	829.33	65.94
i	552.50	135.96

Table 2.10

Mean Consultation Length per GP – Interrupted and Non-Interrupted Consultations

GP	Interrupted consultations		Non-interrupted consultations	
	Mean of 3 consultations(s)	Standard Deviation	Mean of 3 consultations(s)	Standard Deviation
d	746.67	154.82	708.33	61.44
g	593.33	227.53	528	84.86
h	855.67	74.84	803	56.47
i	615.33	109.57	489.67	149.54

2.3.2.2 Total number of transitions. The total number of transitions during consultations in Workshop 2 ranged between 16 and 22. The mean number of transitions was 21.46 (*SD* = 7.65). Post-hoc LSD comparisons across the GP main effect for total number of transitions showed significant differences among specific GPs (see Table 2.11)

Table 2.11

Least Significant Difference Comparisons of Total Number of Transitions between GPs

	GP d	GP g	GP h	GP i
G*P* d		$p = .000$***	$p = .907$	$p = .046$*
GP g			$p = .000$***	$p = .007$**
GP h				$p = .036$*
GP i				

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 2.12

Mean and Standard Deviations for GPs Total Number of Transitions

GP	Mean	Standard Deviation
d	26.50	6.83
g	12.00	3.16
h	26.83	3.19
i	20.50	5.36

Tables 2.11 and 2.12 indicate that GPs varied in the number of transitions between phases during consultations in Workshop 2.

As reported earlier, follow-up univariate ANOVAs showed a significant GP x interruption interaction for total number of transitions. Simple main effects tests of the interaction showed that GP h's total number of transitions were affected by interruptions. All other GPs were unaffected by the interruptions. The interruption effect for GP h is shown in Table 2.13 below.

Table 2.13

Interruption Effect for GP h – Total Number of Transitions

GP	Interrupted consultations		Non-interrupted consultations		Significance
	Mean of 3 consultations	Standard Deviation	Mean of 3 consultations	Standard Deviation	
h	24.33	2.52	29.33	0.577	$F(1,4) = 11.25$, $p = .028$, $eta^2 = .738$

2.3.2.3 Number of forward transitions. The mean number of forward transitions during consultations in Workshop 2 was 13.29 (SD = 4.33).
Post-hoc LSD comparisons across the GP main effect for number of forward transitions showed significant differences among specific GPs (see Table 2.14).

Table 2.14

Least Significant Difference Comparisons of Number of Forward Transitions between GPs

	GP d	GP g	GP h	GP i
GP d		$p = .000$***	$p = .919$	$p = .014$*
GP g			$p = .000$***	$p = .034$*
GP h				$p = .011$*
GP i				

Note: *$p < .05$; **$p < .01$; *** $p < .001$

Table 2.15

Mean and Standard Deviations for GPs Number of Forward Transitions

GP	Mean	Standard Deviation
d	16.33	4.23
g	8.33	1.97
h	16.50	1.38
i	12.00	2.76

Tables 2.14 and 2.15 indicate that GPs varied in the number of forward during consultations in Workshop 2.

As reported earlier, follow-up univariate ANOVAs showed a significant GP x interruption interaction for number of forward transitions. Simple main effects tests of the interaction showed that GP h's total number of transitions were affected by interruptions. All other GPs were unaffected by the interruptions. The interruption effect for GP h is shown in Table 2.16 below.

Table 2.16

Interruption Effect for GP h – Number of Forward Transitions

GP	Interrupted consultations		Non-interrupted consultations		Significance
	Mean of 3 consultations	Standard Deviation	Mean of 3 consultations	Standard Deviation	
h	15.33	0.577	17.66	0.577	$F(1,4) = 24.50$, $p = .008$, $eta^2 = .860$

2.3.2.4 Number of backward transitions. The mean number of backward transitions was 8.17 (*SD* = 3.50) for consultations during Workshop 2. Tables 2.17 and 2.18 indicate that GPs varied in the number of backward transitions during consultations in Workshop 2.

Table 2.17

Least Significant Difference Comparisons of Number of Backward Transitions between GPs

	GP d	GP g	GP h	GP i
GP d		p = .000***	p = .902	p = .226
GP g			p = .000***	p = .002**
GP h				p = .185
GP i				

Note: *p < .05; **p < .01; *** p < .001

Table 2.18

Mean and Standard Deviations for GPs Number of Backward Transitions

GP	Mean	Standard Deviation
d	10.17	2.79
g	3.67	1.37
h	10.33	1.97
i	8.50	2.81

2.3.2.5 Skipped phases. The total number of phases skipped during Workshop 2 was nine, five of which occurred during interrupted consultations, and four in non-interrupted consultations. During seven consultations, getting to know the patient was skipped (Phase I). Of these seven consultations three were interrupted and four were not. In one consultation, determining the reason for the patient's attendance was skipped (Phase II), and in another consultation, consideration by the patient and doctor of the cause of the condition was skipped (Phase IV). Both of these consultations were interrupted. During one consultation two phases were skipped in total. No GPs skipped the examination or management plan phases in any of the consultations in this workshop (Phase III and Phase V).

By reviewing the graphs created for each GP for the set of patients consulted during Workshop 2 it was possible to observe similarities and variability in behaviour during the consultations. Figure 2.18 – 2.21 show the consultation maps for all GPs consulting actor-patient 1 during Workshop 2. As these figures show, although GPs commenced the consultation in a similar fashion, as in Workshop 1, the flow of the consultation varied greatly, as did the length of the consultation.

Figure 2.22 – 2.27 show GP i consulting all actor-patients during Workshop 2. These figures show the variability in the GPs' behaviour during each of the consultations.

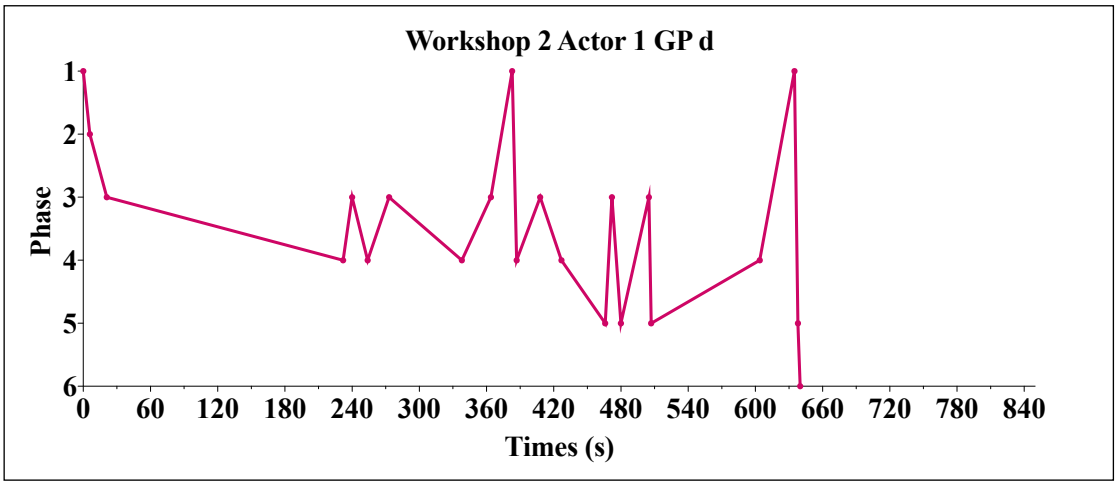


Figure 2.18. Graph of consultation between Actor 1 and GP d during Workshop 2.

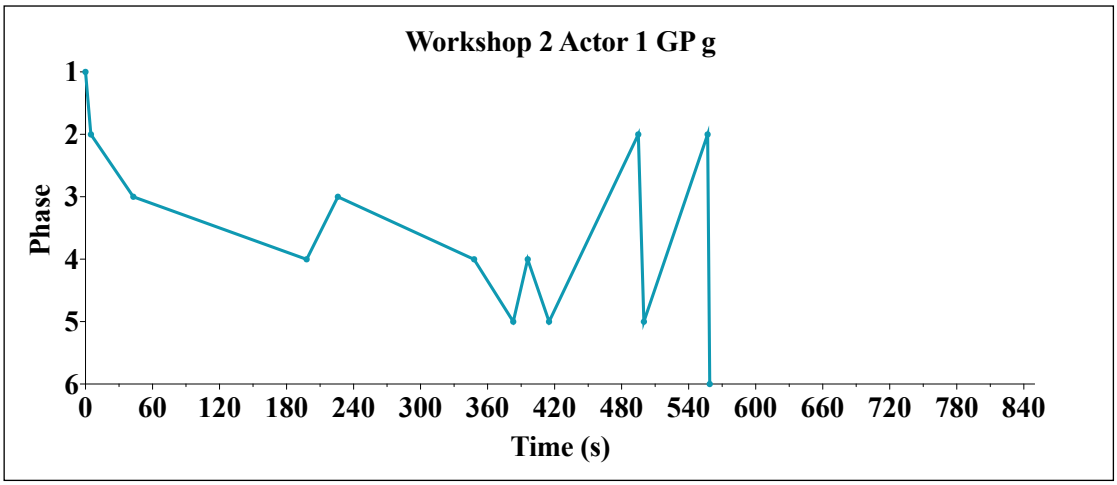


Figure 2.19. Graph of consultation between Actor 1 and GP g during Workshop 2.

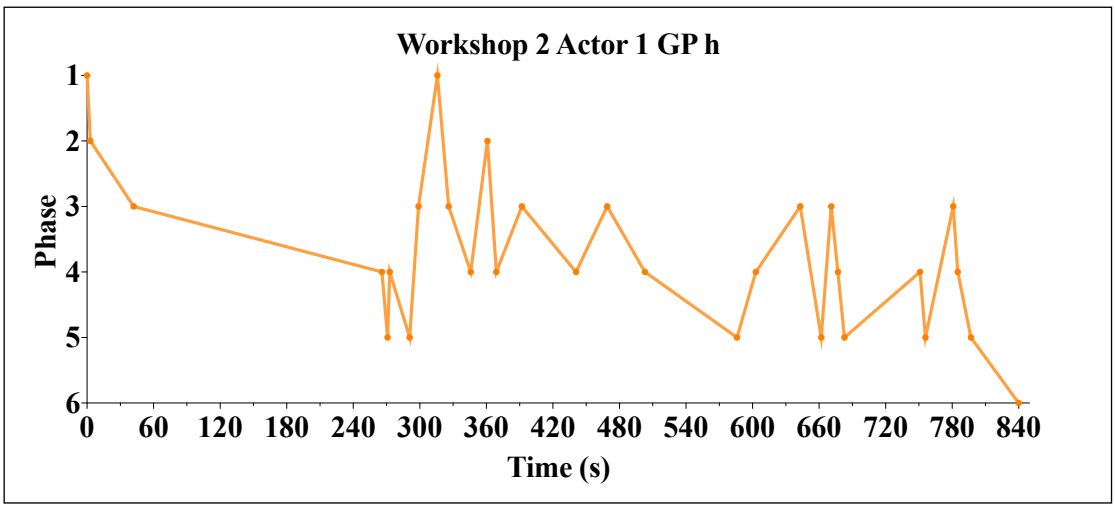
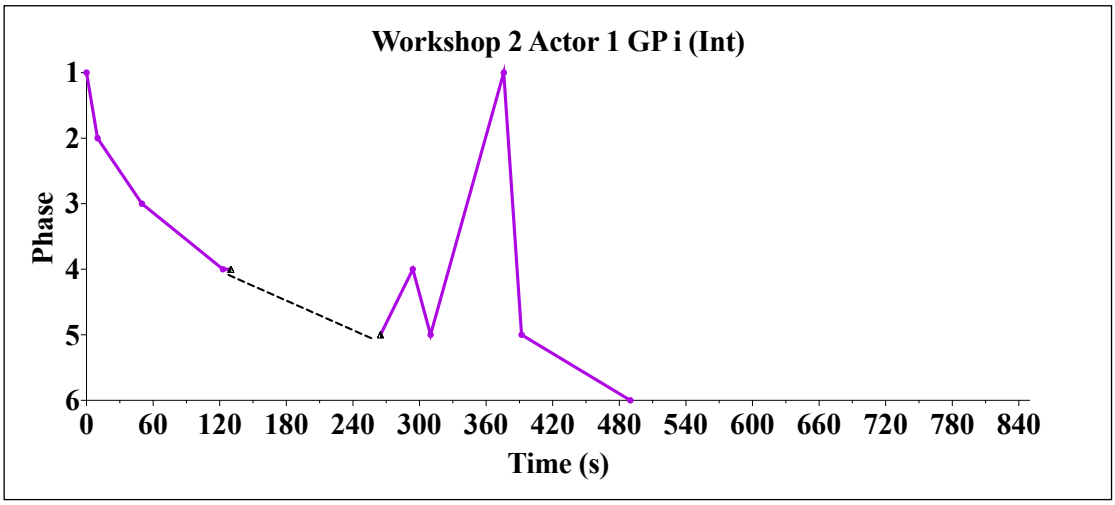
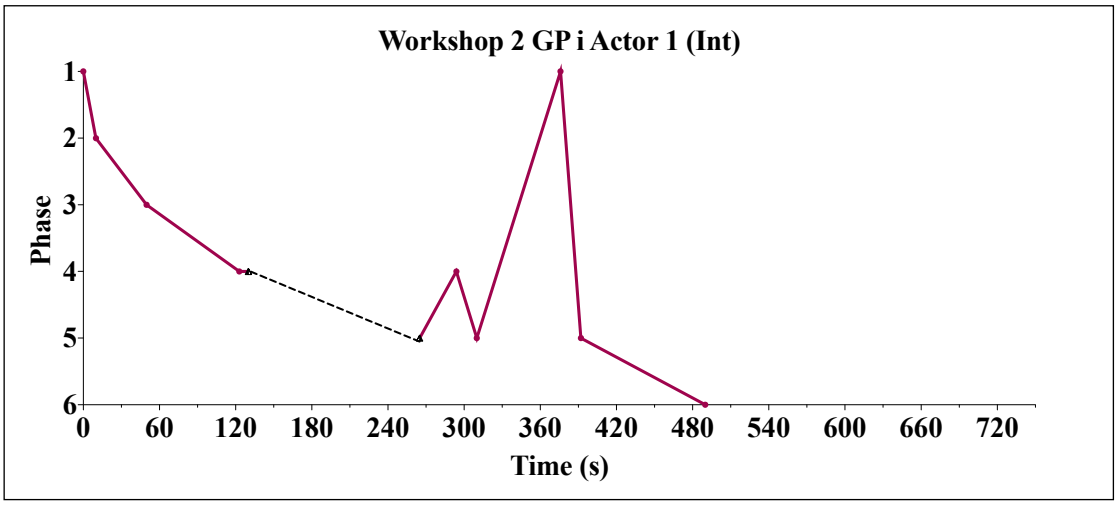


Figure 2.20. Graph of consultation between Actor 1 and GP h during Workshop 2.



Key: ----- = Interruption to consultation

Figure 2.21. Graph of consultation between Actor 1 and GP i during Workshop 2.



Key: ----- = Interruption to consultation

Figure 2.22. Graph of consultation between GP i and Actor 1 during Workshop 2.

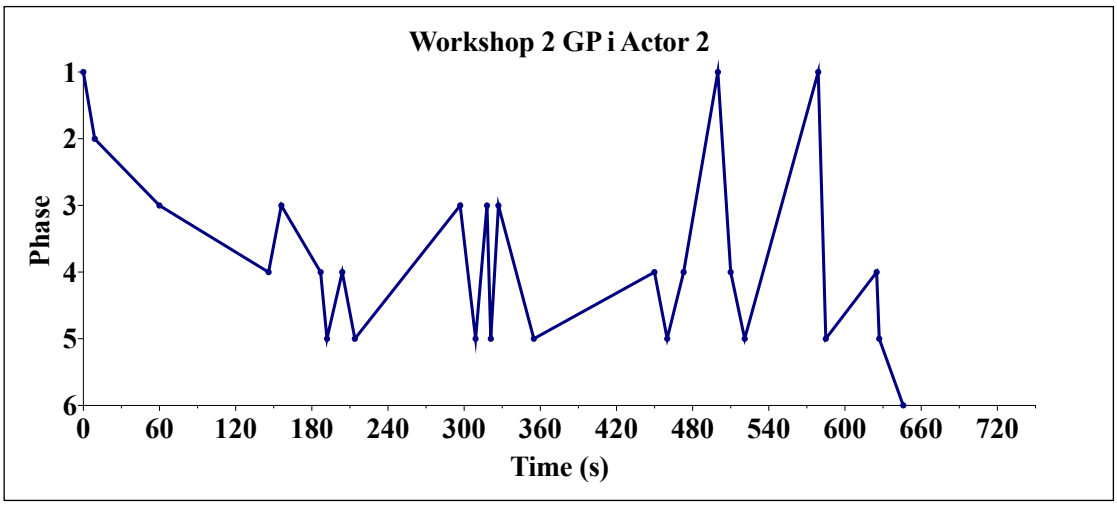
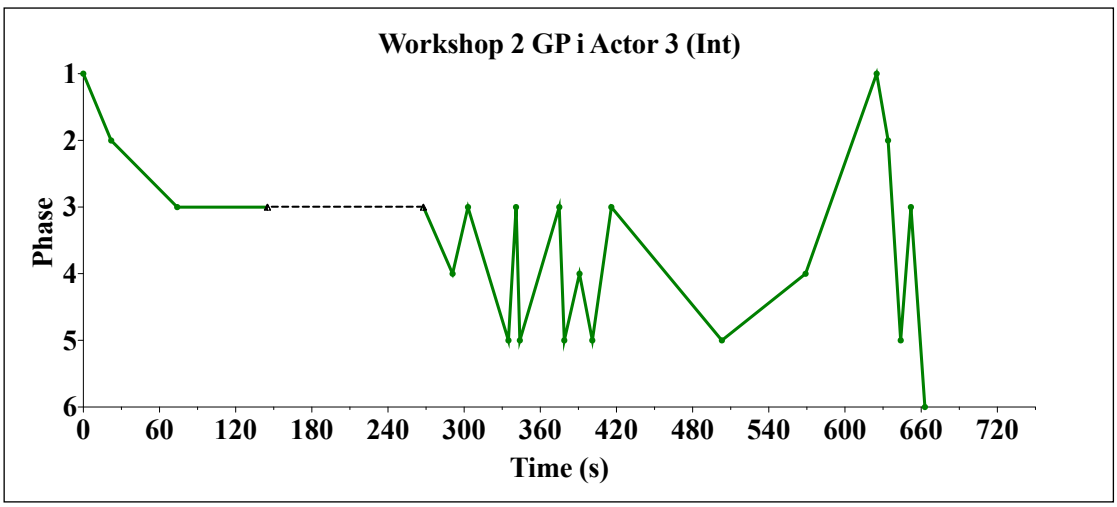


Figure 2.23. Graph of consultation between GP i and Actor 2 during Workshop 2.



Key: ----- = Interruption to consultation

Figure 2.24. Graph of consultation between GP i and Actor 3 during Workshop 2.

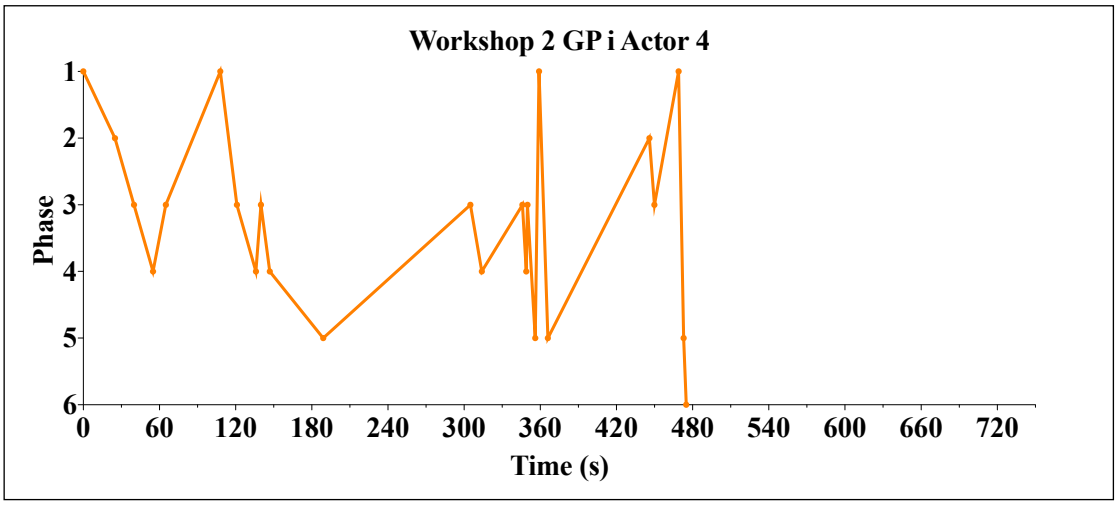


Figure 2.25. Graph of consultation between GP i and Actor 4 during Workshop 2.

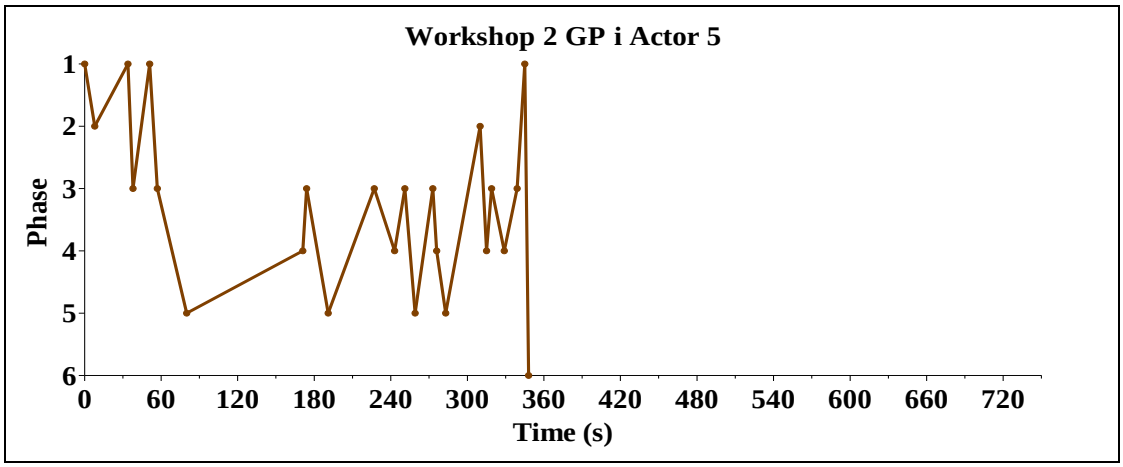
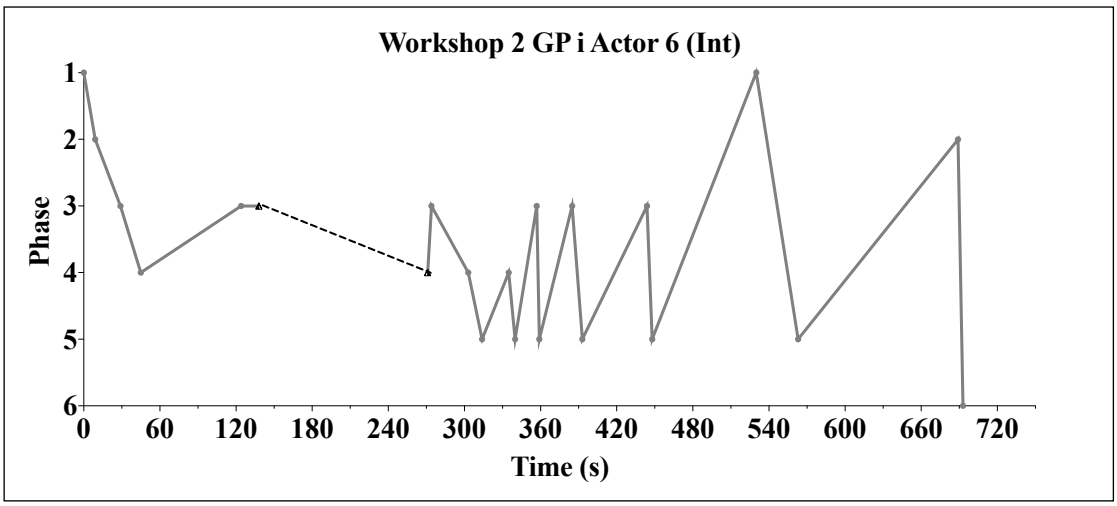


Figure 2.26. Graph of consultation between GP i and Actor 5 during Workshop 2.



Key: ----- = Interruption to consultation

Figure 2.27. Graph of consultation between GP i and Actor 6 during Workshop 2.

2.4 Discussion

2.4.1 Consultation styles

In this study, it was possible to graph the flow of consultations by reviewing the video recordings. The graphs provided a visual description of the behaviour that took place during the consultation. Pendleton et al. (1984) detailed the consultation mapping technique in their description of the model of the consultation. Pendleton et al. (1984, 2004) stated that consultation mapping is a technique for describing the progress of a consultation through the required tasks. A number of researchers (Arborelius & Bremberg, 1992; Fossum & Arborelius, 2004) have subsequently reviewed GP consultations and incorporated mapping based on the consultation model described by Pendleton et al. In the current study the model described by Byrne and Long (1976) was used for mapping the consultations, because it facilitated representation of progression through phases of the consultation over time.

During the consultations in this study the least amount of time during the consultation was spent establishing a relationship with the patient. Byrne and Long (1976), in their description of the model of the consultation, indicated that relating to the patient normally takes very little time. With the more recent focus on patient-centeredness (Brown et al., 1986; Levenstein et al., 1986; Stewart et al., 1986), and the importance placed on the doctor-patient relationship during the consultation (Freeling & Harris 1984), a longer duration on relating to the patient was expected by the researcher. Deveugele et al. (2002), in their study of the length of the general practice consultation across European countries, found that communication behaviour in longer consultations reflected a more psychosocial component. The authors stated that the relationship between doctor and patient is extremely important in primary care and that GPs should be aware that short consultations can hamper this relationship (Deveugele et al. 2002). Pendleton et al. (2004), from their observation of GPs using consultation maps, stated that a common concerning finding was recurrent absence of the personal aspects of the consultation. The authors stated that "we are family doctors and pride ourselves on our knowledge of our patients and their families" (Pendleton et al., 2004 p. 74).

The results from the present study also show that the most amount of time during consultations was spent examining the patient. The examination phase was never

skipped during any of the consultations, although during 13 consultations, establishing a relationship with the patient was skipped. Arborelius and Timpka (1990a) investigated physician's experiences of consultations by asking participants to comment on video recorded consultations. Arborelius and Timpka found that GPs often had difficulty understanding the patient, and failed to be on the same wavelength as the patient. The findings of the current study indicate that difficulties may be faced by GPs in understanding the patient's needs, when the phase involving relating to the patient, has been skipped.

The graphs of the consultation in the present study highlighted the variability in consultations progressing through the phases of the consultation as outlined in Byrne and Long's (1976) model. Many graphs showed the consultation returning to a previously covered phase. Byrne and Long in their description of the model of the consultation stated that they faced difficulty in defining the sequence of events in a logical order. Byrne and Long indicated that their model derived from sequences that could frequently be observed, however, in actual fact these were rare appearances. Byrne and Long stated that the model should be seen as an ideal. Byrne and Long stated, however, that in many consultations in which the GP returned to history-taking or examining the patient this was due to the fact that the GP had failed to correctly determine the patient's reason for their attendance (Byrne & Long, 1976).

The graphs of the consultations also highlighted the variability in behaviour between GPs during the consultation. Significant differences were found between GPs in Workshop 1 and Workshop 2 in regard to the number of transitions to successive phases of the consultation. Pendleton et al. (1984, 2004) stated that there is not a preferable picture of what the consultation map should look like. The authors explained that this is because although a doctor may enter a specific phase or progress to a particular task this may only indicate attempts to address or resolve an issue, rather than indicating a successful outcome (Pendleton et al. 1984, 2004). Pendleton et al. (1984) stated that each doctor has their own repertoire of skills, which vary in development and that by describing a model for the consultation and observing behaviour does not necessarily mean that doctors will consult in the same way. Freeman et al. (2002) in their discussion paper on the evolving general practice consultation stated that GPs do not behave in a uniform way.

By reviewing the graphs created for each GP for the set of patients consulted in each workshop, it was possible to observe similarities in behaviour during the consultations and variability that was experienced by the patient. In other words, specific GP styles for the consultation were observed. Byrne and Long (1976) commented on the remarkable consistency of style shown by doctors in their analysis of GP consultations. The authors stated that although patients brought a wide range of variables to the consultation, it was surprising to discover that individual doctor's responses were considerably standardized (Byrne & Long, 1976). Pendleton et al. (2004) stated that by developing several consultation maps for GPs regularities are demonstrated, described as a style in action. Tate (1983) stated that doctors develop a style based on their beliefs, knowledge, experience and skilfulness. Doctors collate behaviours early in their careers from skills and experience and repeat these day after day (Tate, 1983).

Ford et al. (2006), in their observational study of decision-making in the general practice consultation, rated the communication style of GPs according to whether they met or did not meet the patient's needs. The Oxbridge Rating Scale (Morris, 1992), which assesses the flexibility of a doctor's communication style, was used. This study found that some clinicians had a more flexible communication style than others that resulted in a superior consultation style and stronger interpersonal skills (Ford et al., 2006). Haidet (2007), in his reflection on the art of medicine, described improvisation as an important aspect of communication between doctors and patients. Shaughnessy, Slawson and Becker (1998) stated that the consultation is typically unscripted and devised in the moment. Kleinman (1988) stated that GPs often need to improvise in response to patients differing agendas. Haidet (2007) stated that GPs are in some ways similar to jazz musicians in that they need to develop their improvisational voice. The findings from the present study indicate that a number of GPs involved may have rigidity in their consultation style as depicted in the graphs of the consultation. These graphs showed similarities in GP behaviour when consulting different patients. These GPs and their patients may gain from more flexibility in their consulting style.

2.4.2 Interruptions to the consultation

The findings of the present study indicate that during the workshop involving interruptions to the consultation (Workshop 2) GPs showed variability in the length of the consultation. This may be explained either by the interruptions to the consultations,

or by differences in GP consulting behaviour. Shvartzman and Antonovsky (1992) found in their study of interrupted consultations in a practice in Israel that there was little or no relationship between most interruptions and the length of consultation. These findings contrast to that of the present study. Additionally, Shvartzman & Antonovsky (1992) observed that interruptions were a common occurrence in their study. Trafton, Altmann, Brock, and Mintz (2003), in their study of task resumption following an interruption, found that with practice, people are less disrupted by interruptions that occur without warning. The participating GP in Shvartzman & Antonovsky's study may have become more accustomed to dealing with interruptions than that of those involved in the present study, therefore the interruption did not impact on the length of their consultations.

The results of the present study indicate that GPs spent a similar amount of time in each phase of the consultation, despite half of their consultations being interrupted. This suggests that the added time to the consultation was for the actual interruption to take place, rather than the GP trying to address the patient's complaint. As in Workshop 1, the phase pertaining to establishing a relationship with the patient was skipped during seven consultations. Shvartzman and Antonovsky (1992) stated that it is assumed that interruptions affect communication between the doctor and patient. The findings of the present study indicate that despite consultations being interrupted, this did not influence GPs in placing greater emphasis on relating to the patient.

In this study, GPs varied in the number of transitions between phases during the consultations in Workshop 2. GP variations were noted for total number of transitions, transitions to successive phases and backward transitions. One GP in particular was found to be more affected by the interruptions, with regard to the total number of transitions and number of forward transitions. These results suggest that GPs varied in the ability to cope with interruptions to the consultation. As discussed earlier, Pendleton et al. (1984, 2004) stated that although a doctor may enter a specific phase or progress to a particular task this may only indicate attempts to address or resolve an issue, rather than indicating a successful outcome. The interruptions to the consultation may have caused GPs to transition between phases more frequently compared to uninterrupted consultations. In other words the interruptions may have flustered the GPs causing them to behaviour in an erratic manner, jumping from one phase to another.

In summary, this is the first study to date to show that GPs varied in progressing through the phases of the consultation, and the time spent on each phase, even when different GPs consulted the same patient. Individual GPs showed similarities in consultation behaviour when consulting different patients, which supports the notion of a doctor's consultation style (Byrne & Long, 1976; Pendleton, 1984; Tate, 1983). This consultation style indicates rigidity in GP behaviour during the consultation, which has shown to be inferior to more 'flexible' GPs (Ford et al., 2006). This study also found that GPs spent the least amount of time during the consultation on the relationship with the patient, and was often skipped altogether. A rigid consultation style combined with scarce time spent getting to know the patient may lead to difficulty for GPs in understanding the patient and their reason for attendance. GPs and their patients may gain from more flexibility in the GPs consulting style.

This is also the first study to date to show that GPs vary in their ability to cope with interruptions to the consultation, which may improve with practice. Interruptions to the consultation did not influence GPs to place greater emphasis on the relating to the patient, despite assumptions in the literature that interruptions affect communication between the doctor and patient (Shvartzman & Antonovsky, 1992).

This study found evidence to support a GP consultation style, in that individual GPs behaved similarly during consultations despite consulting a variety of patients. Additionally, this study showed that different GPs varied in they way that they consulted the same patient. This study also showed that GPs varied in the way that they managed interruptions to the consultation, and spent little time establishing a relationship with patients. There are, however, several limitations to this study, which are detailed in the final chapter of this thesis, along with the limitations of the other two studies (p. 154).

CHAPTER 3

Study 2: The rituals of medicine: GP and patient perspectives

3.1 Introduction

The GP's understanding of the patient and their disease derives from the relationship they have with the patient (Stewart et al., 1979). The consultation is the forum for first contact between the GP and patient. The doctor-patient relationship allows for two individuals, with limited knowledge of each other, to feel comfortable with a high level of intimacy and is a major determinant of the outcome of the consultation (Toop, 1998).

The doctor-patient relationship has been described as one of the most complex of all relationships (Ong et al., 1995). Friedman (1982) described the influence of societal expectations on both doctor and patient as influencing the interactions during consultations. The patient comes to the consultation seeking guidance from experts (Silverman, 1987), and is expected to be forthcoming and cooperative. Historically, the patient was usually the passive recipient of the GPs prescribed treatment (McWhinney, 1983). As a result, the GP was assigned with a degree of authority over the patient, due to their expert knowledge (McGregor, 2006), and are expected to bring the patient out of illness (McWhinney, 1983).

Historically, the doctor-patient relationship has been described using a model of activity-passivity (Szar & Hollander, 1959) referred to as the biomedical model (Mishler, 1981). In this model, patients give up power and control during the consultation and are subject to invasive examinations and investigations (McGregor, 2006). Freeling and Harris (1984) stated that the role of the doctor carries a degree of power, authority and control.

The patient's role is often passive and involves dependence on the GP (McGregor, 2006). McGregor (2006) described patients as implicitly providing consent for various interventions, which can be invasive and physically penetrative or violative in nature just by attending the consultation. Parsons (1964) believed that patients assumed the 'sick role'. Parsons observed that patients placed themselves in this role at a point where they considered themselves defeated by the disease. These patients were looking for

someone else, namely the doctor, to take the burden of their lives and provide guidance and treatment.

According to Foucault (1973) questions from GPs to patients at the time of the biomedical model were directed at determining "where it hurt" and specifics about the symptoms, rather than a holistic perspective of patient suffering. During this period patients were not included in decisions about their conditions or management (Ong et al., 1995). McGregor (2006) stated that patients were often included at the 'tail end' of discussions or decisions concerning treatment regimes. The doctor-patient relationship was paternalistic in that the doctor directed care and made decisions about treatment (Ong et al., 1995).

Balint and colleagues (1970) introduced the concept of 'patient-centred medicine' as opposed to illness-centred medicine. This concept involved an overall diagnosis of the patients' complaints, or an understanding of the patients' complaints as opposed to purely determining the physical diagnosis. Following this, Stewart et al. (1979) carried out early research into the doctor-patient relationship and patient-centred consultations. Stewart et al. found that GPs were more likely be aware of a patients problems and symptoms when there was an established relationship between the GP and patient. Subsequently the patient-centred clinical method was described (Brown et al., 1986; Levenstein et al., 1986). In this model the GP's tasks during the consultation are outlined as two-fold: to understand the patient, and to understand the disease (Levenstein et al., 1986). The dual purpose of the consultation was expressed in terms of the doctors and the patients' agenda (Levenstein et al., 1986). The doctors' agenda is to determine the diagnosis and establish a management plan but also to determine the patients' agenda and merge the two (Levenstein et al., 1986). In contrast, the patients' agenda involves expectations, feelings and fears about the condition (Levenstein et al., 1986).

More recent focus for the general practice consultation has been on partnerships during the consultation (Silverman, Kurtz, & Draper, 1998), and negotiation (Middleton, 1989) between doctor and patient. Ford et al. (2006) stated that involving patients in decisions about management of medical conditions is increasingly being advocated as a way of improving the quality of health care. This shift in focus has led to further complexities

in the consultation as GPs need to engage with patients in order to become partners in care, particularly for the ongoing management of chronic illnesses (Bower et al., 2001). The communication skills of the doctor largely influence the doctor-patient relationship (Howie, 2004). Maguire and Pitceathly (2003) suggested that doctors with good communication skills determine patient's problems more accurately.

Various communication guides and workshops have been developed to educate GPs on how best to engage with patients (National Health and Medical Research Council, 2004; Platt et al., 2001; Robertson, 2005; Schofield & Butow, 2004). Similarly, different techniques to determine the outcome of these newer models have been employed, such as patient satisfaction (van Dulmen, Verhaak, & Bilo, 1997), patient outcomes including levels of anxiety, distress, and depression (Schofield & Butow, 2004), patient perceptions (Edwards et al., 2006), patient preferences (Ford et al., 2006; Little et al., 2001; Street et al., 2003; 2007), observation techniques (Arborelius & Osterberg, 1995; Ford et al., 2006; Little et al., 2001; van Dulmen et al., 1997), conversation analysis (Gafaranga & Britten, 2003), and participant feedback (Arborelius & Osterberg, 1995). This research has suggested that measuring patients' perceptions is as important as analysing doctors behaviour during the consultation (Ford et al., 2006). As a result, patients' perceptions should be included in research into the way that GPs relate to patients during the general practice consultation, along with observation of GP behaviour.

Ford et al. (2006) conducted a study that combined video recordings of consultations and a follow up questionnaire with patients. Ford et al. attempted to determine the skill-sets of GPs that could meet patient preferences versus those that could not, particularly during decision-making in the consultation. The post-consultation questionnaire was used in a previous study by the authors (Ford, Schofield, & Hope, 2003) to determine patients' decision-making preferences. The questionnaire explored patients' expectations and preferences regarding the consultation and consisted of three instruments measuring patient enablement (Howie et al., 1999), decision-making roles (Degner & Sloan, 1992), and information preferences and perceptions of the consultation (Makoul, Arntson, & Schofield, 1995). Ford et al. (2003) acknowledged that the approach involved assumptions that patients understood the concepts and

questions presented in the post-consultation questionnaire, and that limitations existed in gaining more in-depth understanding of patients' views.

Ford et al.'s (2006) study highlighted that patients overestimate the degree to which they are involved in decision-making during the general practice consultation. This was determined by comparing patient's perceptions of who made the decisions and the scores the principal researcher gave the video recorded consultation using an instrument measuring opportunities for decision-making, the Evidence Based Patient Choice Instrument (Ford, Schofield, Makoul, & Hope, 2006). The authors concluded that patient's perceptions of what happened during the recorded consultations were influenced by the communication style of the GP.

The present study replicates the method used by Ford et al. (2006), although interviews were performed to gain an in-depth understanding of the patients' (actor-patients) perceptions of the consultation, rather than questionnaires. The interviews explored patient's perceptions of the consultation in terms of progression, flow and pressures faced. Patient enablement, decision-making and information perceptions were not addressed due to the patients being actors, and unable to comment on these areas, unlike a 'real' patient. Interviews were selected because they more easily captured participant's perceptions of the consultation, and allowed for in-depth questioning of specific observations. Interviews are beneficial as they enable the researcher to establish an in-depth understanding of a particular subject. In the previous chapter, the observation and mapping of video recorded simulated consultations was outlined. In this chapter the perceptions of both patients and GPs in regard to the simulated consultations is explored via participant interviews.

3.1.1 Theoretical framework

The interviews with patients and GPs described in this study were analysed using a theoretical framework. Patient and GP perspectives were interpreted using the theoretical perspective of symbolic interactionism, which has been utilised to describe medical encounters in previous research (Crooks, 2001; Crosland & Kai, 1998; Lambert et al., 1997). This theory provided the researcher with a pre-conceived idea about the doctor-patient relationship during the consultation that aided interpretation. The theory of symbolic interaction was developed by George Herbert Mead (1962) but was coined

'symbolic interactionism' by one of his students, Blumer (1969). Central to this theoretical perspective is that people's behaviour is determined by 'context' and the new situations that they find themselves in (Mead, 1962). Blumer described this perspective using three core principles: the first being that people act towards things based on the meaning that these things may have for them; the second, that these meanings derive from social interaction; and the third being that these meanings are modified through interpretation (Blumer, 1969).

Griffin (1997) outlined these three principles using the titles of meaning, language, and thought. The first principle: meaning, describes how people act towards things based on meanings that they have assigned (Griffin, 1997). The second: language, outlines how meaning is negotiated through social interaction via language (Griffin, 1997). Meaning is not inherent in objects (Griffin, 1997) but by conversing with others regarding objects or people meaning can be established. The third: thought, describes how an interpretive process (Blumer, 1969) or reflection (Griffin, 1997), is required in order to consolidate meaning.

This theory can be used to interpret the relationships that GPs and patients form during the consultation. GPs and patients act toward each other based on the meaning that they have for them. During the consultation they interact and converse, establishing, clarifying and reflecting on this meaning and acting accordingly. Lambert et al. (1997) stated that health behaviour is a consequence of symbolic interaction because health is built and maintained in interaction. Crooks (2001) utilised symbolic interactionism as a perspective for exploring women's health and perspectives. Crooks stated that use of the symbolic interactionism in research involves and supports understanding of participant experiences. Similarly, Crosland and Kai (1998) interpreted interviews with nurses using symbolic interaction theory, exploring their experiences and perspectives of caring for patients with mental problems. Crooks stated that interpreting women's perspectives through symbolic interactionism gave women a voice regarding their health issues. The use of symbolic interactionism allowed Crooks to develop an understanding of what is meaningful for women in terms of health, with regard to their relationships, interactions, and preferences. Similarly, Crosland and Kai were able to view health care from nurses' perspectives through the use of symbolic interactionism, including their actions and interactions, and the meanings these have for them. Crosland

and Kai highlighted how nurses described mental health patients often telling them things that they wouldn't tell their GP, because they feel they can talk to nurses. In this way, nurses felt it was important to give these patients the opportunity to discuss their concerns.

Stemming from the sociological perspective of symbolic interactionism is the concept of dramaturgy (Goffman, 1971; 1974; 1982), whereby physical setting is influential on the interaction. Pearce et al. (2006; 2008a, 2008b) utilised Goffman's dramaturgical theories to observe general GPs' and patients' interactions with computers. According to dramaturgy Pearce et al. treated the consultation as a play, with the consulting room as a stage, with established props, such as the doctors' desk, computer and chairs, and the patient and GP as actors. Haas and Shaffir (1982) used dramaturgy to describe the development of medical students to GPs. Haas and Shaffir stated that the drama of medical school and clinical experiences are played out in front of peers, patients, and hospital and university staff. Leichtentritt and Rettig (2001) utilised Goffman's theory in their examination of descriptions from elderly people experiencing death. Leichtentritt and Rettig stated that the dramaturgy method is appropriate for structured interactions, including those in medicine, in which people have some knowledge about and understand the norms. Participants cast themselves in roles of actors in relation to their surroundings and narratives (Leichtentritt & Rettig, 2001).

In the present study time constraints are also explored, which can be viewed as an additional dramaturgical influence to the medical consultation. This is because the interaction is strongly influenced by any factors that impact on either participant in the consultation, or any new 'prop' or disturbance, such as a new piece of equipment or an interruption. Interruptions to the consultation may inhibit the disclosure of intimate and relevant clinical details (Paxton, Heaney, Howie, & Porter, 1996).

3.1.2 Aims

The overall aim of this study was to investigate the impact of simulated consultations on the doctor-patient relationship, GP behaviour, and the flow of the consultation. Additionally, the aim of this study was to explore GP and patient views on simulated general practice consultations compared to real-life general practice consultations to determine perceived similarities or differences in behaviours. The comparison was

conducted to identify whether the simulated consultations were a useful method for observing GPs consulting styles.

The research questions guiding this research were:

1. How does a simulated consultation affect the GPs ability to behave as in a routine consultation?
2. How does a simulated consultation impact on the relationship between GP and patient?
3. How does an interruption to a consultation impact on GP and patient behaviour?

The rationale for the study was to gain further understanding of the behaviours of GPs and patients during the general practice consultation, the doctor-patient relationship, and the use of simulated consultations from both a GP and patient perspective. Further understanding of these aspects of the general practice consultation could enlighten GPs and patients about their behaviour. GPs could learn from this awareness and make changes and improvements to their consulting behaviour such as additional training in certain areas, for instance, communication. Communication between the doctor and patient has a significant impact on the doctor-patient relationship, and the outcomes of care (Roter & Hall, 2006). Silverman et al. (2005, p.8) stated that effective communication vastly improves: i) accuracy, efficiency and supportiveness; ii) health outcomes for patients; iii) satisfaction for both doctor and patient; and iv) the therapeutic relationship. Simpson et al. (1991) stated that a GP's personal growth and self-awareness are essential bases of effective communication.

3.2 Method

Ethics approval for this study was obtained and was described in Study 1 (p. 42).

3.2.1 Participants

The participants recruited for this study were described in Study 1 (p. 42).

3.2.2 Materials

Semi-structured interviews were conducted with consenting GPs and actors after the simulated consultations had occurred. The interview questions focused on the doctor-patient relationship, the reality of the simulated consultations, the impact of the interruptions, and the use of the software during the consultation. The questions asked during the interviews are outlined in Table 3.1. Any additional questions involved rephrasing questions for clarification with the participant, or requesting elaboration of their responses. For example: Did you find that happened during the workshops? Can you tell me a little more about that? Is there anything particular you thought about that?

Semi-structured interviews were chosen as the methodology because they seek to gather descriptions from participants about specific real-life situations (Kvale, 2007). Semi-structured interviews allow for greater flexibility than a structured interview because there is no fixed wording of questions, and discussion can occur around specific topics (Minichiello, Aroni, Timewell, & Alexander, 1995).

3.2.3 Procedure

Following the last consultation at each workshop, GPs and actor-patients were invited to participate in a short semi-structured interview. Interviews were conducted by the researcher and a research colleague at the WA Centre for Cancer and Palliative Care at Curtin University. The researcher discussed the interview questions with one of the research supervisors prior to the first workshop to ensure the validity of the questions and appropriateness of their wording. The interviewers then discussed the intent of the interviews and each individual question prior to the commencement of the first workshop, to ensure there was consistency about the questions asked, and that the purpose of the interviews was clear.

3.2.3.1 Data Collection. The interviews were audio-recorded and transcribed verbatim. Each interview lasted between five and ten minutes. Following the first workshop the interviewers listened to each other's interview recordings to ensure consistency in lines of questioning and prompts for participants. Field notes were recorded during the interviews and subsequent field notes were made after completion of the interviews. The researcher collected these notes at the end of each workshop. There was no prior allocation of participants to interviewers or order in which these should take place. Once one interview had been completed, the interviewer asked another available participant to enter the interview room to conduct the interview.

Table 3.1

Interview Questions

GPs	Actor-patients
▪ How do you think the consultations went? ▪ Did you feel you performed according to your normal consultation procedure? ▪ If no, why? ▪ Were there any pressured aspects of the consultation? ▪ What in particular do you feel went well in the consultations? ▪ Are you able to describe what steps were involved in the consultation – from when you met the patient until you were finished? ▪ How well do you feel you related to the patient?	▪ How do you think the consultations went? ▪ Did you feel like it was a normal visit to a GP? (In particular, in terms of the steps?) ▪ If no, why? ▪ Were there any pressured aspects of the consultation? ▪ What in particular do you feel went well in the consultations? ▪ How well do you feel you related to the GP?

3.2.3.2 Data Analysis. The interview data was analysed using framework analysis. Framework analysis involves the concept of a priori reasoning, whereby the

researcher has specific questions that they are hoping to answer, and a pre-conceived idea about what the answers may be (Crabtree & Miller, 1999). The approach involves five stages: familiarisation, identification of a thematic framework, indexing, charting and interpretation (Pope, Ziebland, & Mays, 2000). Jiwa and Burr (2002) utilised framework analysis in their exploration of factors that influence GPs writing referral letters for patients with bowel cancer symptoms. Jiwa and Burr stated that framework analysis provides a transparent, systematic approach for analysis of large amounts of data. The authors identified four key themes from analysis of interviews with 12 GPs, and found that GPs require support in selecting cases for referral, and communicating with specialists regarding bowel cancer.

In the current study, theoretical perspectives of symbolic interactionism and dramaturgy were used as the framework for analysis. The researcher reviewed the interviews and transcripts, and a framework for coding the data was established. The coded data was rearranged into a chart of the thematic framework. One chart was developed for the GP interviews, and one for the actor-patient interviews. The charts were reviewed by one research supervisor and a GP involved in the design of the research. The charts were interpreted for themes by the researcher and one of the research supervisors. The themes and sub-themes emerged during interpretation of the charts developed during the framework analysis through reading and re-reading of the data. Sections of the charts that best illustrated the themes were grouped for reporting and subsequently refined. These themes were initially summarised, and further reviewed and refined to ensure they were consistent with the themes identified in the data. The themes and sub-themes were confirmed with one of the research supervisors, and a GP involved in designing the study. Analysing interview data for themes involves making explicit the structures and meaning that is represented in the participants account (Gavin, 2008). Thematic analysis examines participants' thoughts and feelings regarding a particular topic, to identify patterns or atypical ideas (Gavin, 2008). In thematic analysis the focus is exclusively on content (Riessman, 2008). Gavin (2008) stated that an accuracy check for thematic analysis involves other researchers analysing the text.

3.3 Results

A total of 19 interviews of a possible 24 were conducted over the two workshops, a response rate of 79%. Nine of the interviews were with GPs and 10 interviews were with actor-patients. Some participants left the workshops straight after completion of the final consultation so were unable to participate in an interview. The number of interviews completed per workshop is shown in Table 3.2.

Table 3.2

Number of Interviews Conducted with GPs and Patients for Each Workshop

Workshop	GPs	Actor-patients
1	3 (50%)	5 (83%)
2	6 (100%)	5 (83%)
Total	9 (75%)	10 (83%)

3.3.1 Overview of findings

Three main themes emerged from the interviews with GPs and patients. These were:

1. Understanding the general practice consultation
2. The phenomenon of simulated consultations
3. The impact of interruptions on the consultation.

Each of these themes contained a number of sub-themes that described the GPs and patients' perspectives in more detail. Figure 3.1 illustrates the themes and sub-themes for both the GPs' and patients'. These themes and sub-themes derived from thematic framework analysis of the GP and patient interviews. The GP and patient perspectives are reported separately below.

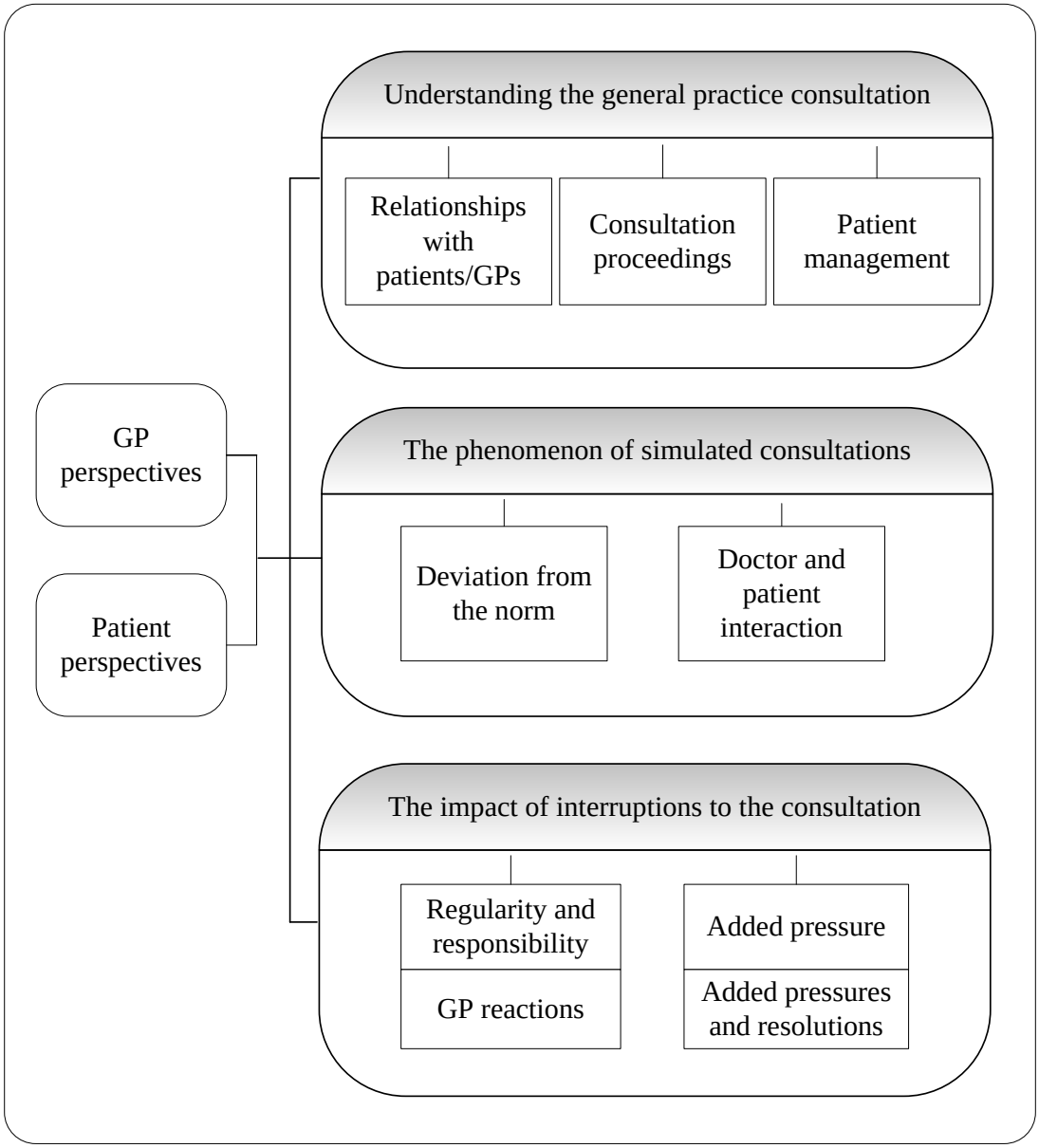


Figure 3.1. Summary of themes and sub-themes from GP and patient interviews.

3.3.2 GP perspectives

3.3.2.1 Understanding the general practice consultation. The general practice consultation is a complex interaction, with specific participants, the doctor and patient, and proceedings. Patients must describe their illness or reason for attendance to GPs, who then must work towards resolution of the problems for the patient. This involves taking a history, performing an examination, and outlining a management plan. GPs in the study discussed some of the factors that influence the complexity of the

consultation. These sub-themes that provide an understanding of the general practice consultation are shown in Figure 3.2.

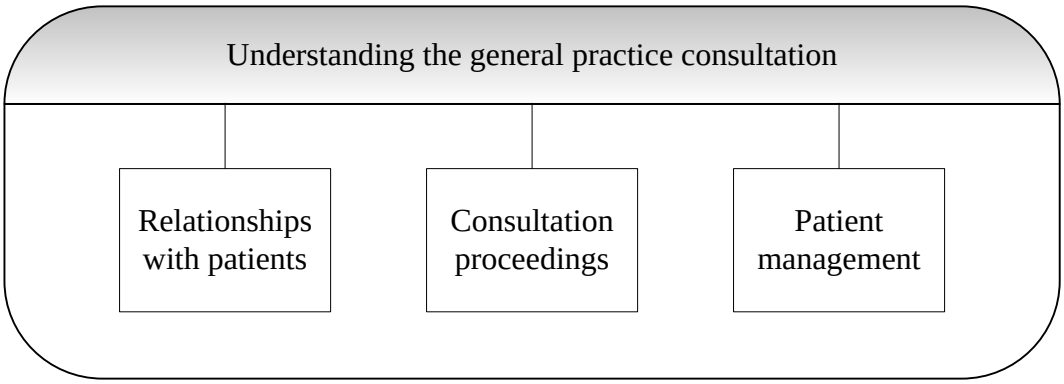


Figure 3.2. Summary of sub-themes in understanding the general practice consultation – GP perspectives.

Relationships with patients. GPs shared experiences of developing relationships with patients over time and described a preference for a developed relationship with a patient rather than consulting new patients. A compassionate sense of familiarity with patients was expressed and described as a form of friendship. This friendship was described as not being a friend in the usual sense, whereby there is an emotional connection, but a connection due to encountering each other in familiar circumstances. These encounters created the sense of a conversation that continued from one consultation to another. Familiarity with patients was described as bringing enjoyment for the GP and facilitating flow during the consultation in that it allowed the GP to be more relaxed. This can be interpreted by symbolic interactionism where GPs interact with patients based on the meaning that they have for them. As the relationship has already been established, therefore meanings developed via interaction, the consultation can flow more easily. The following two exemplars highlight these findings;

> *"..most patients I see are people that I have some recollection of so it's that sense of having that ongoing conversation with people…"* [GP d]

> *".. I would be a lot more relaxed I'd say 'Oh hi, how are you?', and you know what's you know, it's you know it's not quite the how are your kids or whatever but*

there are often [people and things] that you remember from the last time that make the consultation flow really well." [GP d]

Despite the enhancement of the consultation that this familiarity brings, GPs admitted that they did not necessarily remember what conversation they had had previously with the patient. In these instances, GPs felt it necessary to give the patient the sense that they did, as illustrated in the following exemplar;

"..You know obviously most of the time I don't remember what we said last time, but we have to give the impression we do." [GP d]

Consultation proceedings. GPs related their experience of initiating a consultation. Specific language used in the opening sequence was referred to, as was the need for GPs to allow patients the opportunity to tell their story. This story telling was described as being facilitated by ensuring the patient was made to feel comfortable, as depicted in the following exemplar;

"You get them to sit down and um you know just make them feel comfortable for a little while and then ask them what their problem is and then try work out what the problem is." [GP b]

Determining the point at which the GP should interject was described as an art-from, particularly if the patient had not completed their initial dialogue. This interjection was described as a method for keeping the consultation on task and on time. One GP described trying to postpone the interjection for as long as possible;

"Usually I say what can I do for you? And I let them talk for as long as they want to for, for a short while at least before I, before putting my 'oar' in, at least I try to." [GP f]

The art was described as interjecting the patient's explanations at the right time, and with the right words in order to maintain a good appearance. If the interjection occurred at the wrong time it could be considered offensive, as highlighted in the following exemplar;

"I guess that's the art of general practice isn't it, it's at least in part, interrupt people without appearing to be rude, trying to keep them on track." [GP f]

Following initiation of the consultation, some GPs felt that there is a particular proceeding for the consultation. A number of GPs referred to an underlying framework for the consultation as being history-taking, examination and investigations followed by management plan. However, GPs felt that they did not necessarily follow this order of proceedings. GPs described leaping from one phase to another, depending on their train of thought or the main concerns for a particular patient. GPs described returning to certain topics or phases that may have already been covered, as shown in the following exemplar;

"I tend not to be very systematic in my consultations so I will often go onto one topic and then do another topic and then go back to the first topic later on when for whatever reason, whether I've just thought of something about it or it seems that the other topic became more prioritized, so I won't necessarily do history, examination then go onto investigations and then a management plan, so I'll, I will probably skip around…" [GP f]

GPs stated that they proceeded with certain tasks during the consultation even though they were not necessary for their medical judgement. GPs stated that they behaved in particular ways based on expectations of patients. Specifically, GPs described performing examinations or ordering tests, even though a diagnosis had already been made. GPs indicated that these tests were used as confirmation of their diagnoses. This GP behaviour was illustrated in some instances as being a show for patients, a rendition of the patients expected behaviour for the GP. By 'performing' for patients GPs were portrayed as maintaining a good appearance with patients. The patient is shown that the GP has listened and fully considered their symptoms and feels that they are worthy of further investigation or treatment. The following exemplar illustrates this behaviour from GPs;

"..the one thing I, I did notice myself doing and I have seen myself do this several times in general practice as well, is that we know most of our diagnostics is actually

made from talking to people, the examination and tests actually don't matter that much, they are really confirmatory. But I believe that patients actually think they are really important and so some of the time I think the examinations almost like a show to show people we are taking them seriously…it is the real thinking process that what we actually do is we, we take a history we've come to our conclusion and then examination and all the rest of it, is actually relatively irrelevant." [GP d]

Patient management. GPs related the experience of treating or managing patients as varying depending on how the patient was behaving or reacting during a particular consultation. Patient's behaviour or reactions were described as altering how much information is given, and whether the patient is offered a referral to a specialist. The seriousness of the condition was also described as influencing the management of patients. GPs expressed difficulty in determining the amount of information that should be given to patients who have symptoms of a serious illness. The following statement from a GP demonstrates this theme;

".. with a lot of patients you have to take the rest of the patient into account so if they have cancer you have to well if they have cancer symptoms you have to sort of take their point of view into account, their age, their other morbidity, their you know how anxious they are as to…and those sorts, those things will have impact on what you will do, so for someone who wasn't really worried too much you might watch things and see, see what happens where as someone who is especially anxious would is you would warrant some sort of trip to some sort of specialist. And that, and those are variables that will vary depending on the consultation and the actual individual patient." [GP b]

GPs indicated that management of patients can differ depending on the reaction or view of the patient. This includes how much information is given to patients, how long the GP would 'wait and see' if the condition worsens or improves, and whether or not they would refer the patient to a specialist. GPs described being more inclined to refer to a specialist if the patient was anxious about their condition, and more likely to 'wait and see' if the patient wasn't particularly worried about their symptoms.

3.3.2.2 The phenomenon of simulated consultations. The use of simulated consultations differs from real life general practice consultations. Some elements of the consultation are missing and may impair a GPs ability to behave as they normally would. GPs discussed the key differences between simulated and real-life consultations, and the impact of these differences. These sub-themes are shown in Figure 3.3.

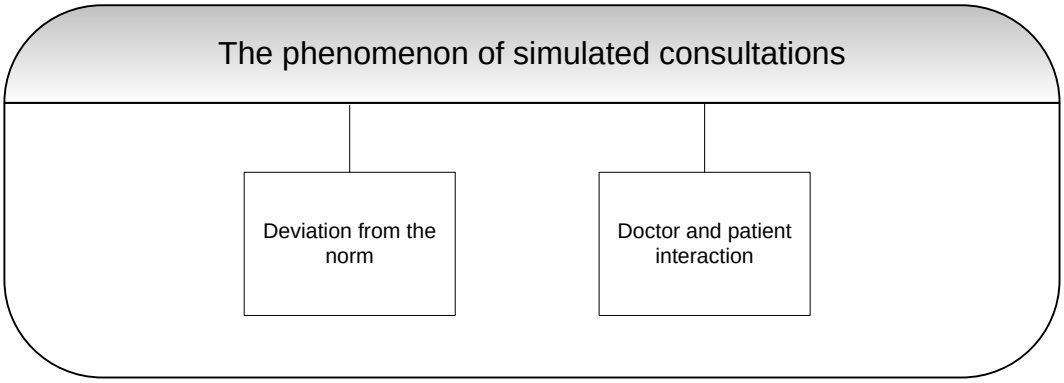


Figure 3.3. Summary of sub-themes in the phenomenon of simulated consultations – GP perspectives.

Deviation from the norm. GPs indicated that aspects of the simulated consultations were different to usual general practice. GPs felt that almost every patient presenting with a potential cancer case during the workshops was out of the ordinary. This was described as being a misfortune and poor scenario for GPs if it occurred in real life. Consulting so many potential cancer patients in a row was described as being emotionally burdensome and stressful for GPs. This was explained as being due to the delicacy and seriousness of the subject and the emotional concern that GPs felt for the patient. The seriousness of the cases was said to increase the GPs concern, as illustrated by the following exemplar;

> *"…because it is quite emotionally draining when you're tell somebody well, you go off with this one and the next patient you're sending them off urgently, you know you do kind of ….oh no, oh no, oh I hope she's alright. Oh no what's going to happen when she comes back?"* [GP e]

GPs indicated that the lack of physical examination during the simulated consultations altered the reality of the consultations. Actors were not required to undergo any physical examinations and presented an examination card to GPs upon request. GPs felt this saved a considerable amount of time during the consultation and influenced the flow of the consultation. GPs indicated that the phases of the consultation were more pronounced without the examination. Real life consultations were described as being more scattered. GPs explained that in real life certain tasks occur concurrently during the consultation just by observation and discussion, as illustrated in the following exemplar;

> *"Normally when an asthmatic is sitting in front of you, you can tell if they're, they're really getting bad but of course with mock patients you have to, you've actually got to ask for the examination findings."* [GP i]

The presence of the video cameras was also described as influencing GP behaviour during the simulated consultations. GPs indicated that at times, they were not behaving as they normally would due to the additional pressure of the video camera. GPs related feeling expected to behave in a particular way, rather than their usual way, and pressure to manage patients in the 'right' way. GPs described consultations being more muddled, particularly at the beginning of the first workshop, as demonstrated in the statement below;

> *"I think one of them perhaps it was the first one I felt like I was a bit all over the place like I took history, exam and took a bit more history did some more examining I think I was a bit nervous in the environment of cameras running and getting used to things."* [GP h]

Doctor and patient interaction. GPs felt that consulting actors as patients influenced the interaction with the patients. GPs felt that because the patients were actors the emotional aspect of the consultation was diminished. The GPs concern for the patient's wellbeing, and the patient's reaction to their potential diagnosis was reduced. GPs described receiving fewer questions than real life patients and a reduced emotional response from actors when being told of a life-threatening condition.

"It's slightly unrealistic for patients to be told that they need further investigations or that there's something serious that might be wrong with them and then not inquire further or to be particularly worried about it." [GP f]

The reduced emotional content of the consultations also influenced the way that patients presented symptoms to GPs. GPs felt that patients were more forthcoming with information and symptoms. GPs described having to push patients for information more in real life to determine symptoms and take a history. GPs indicated that the actor-patients were more willing to elaborate on questioning compared to real life patients. This was described as reducing the length of the consultation. GPs also described having to siphon through other irrelevant conversation. GPs explained that in real life these factors mean that it can be harder to make a diagnosis and causes the consultation to be longer. The simulated consultations were more simplified and patient symptoms were clear-cut, as demonstrated by the following exemplar;

".. the patients are certainly well, don't bring as much maybe as baggage as they're very, well they're good patients but they very sort of direct with their symptoms… which is often not quite the case in real life, it's sort of a came in and say oh yeah and had my script and I know that, and you know my next door neighbour…" [GP e]

GPs also described a lack of questioning from actor-patients regarding their potential diagnosis during the simulated consultations. GPs indicated that in real life if a patient was diagnosed with a serious illness, or was referred on to a specialist, or for further investigation they would want to know more about why and what the results may mean. Patients would also need more information about the procedures and the possible condition they may have. Real-life patients would also be more anxious or concerned for their own wellbeing. The following exemplar illustrates this theme;

"..you send them off somebody off urgently for this and that and they tended to be quite…happy well not happy but obviously there'd, you'd do a lot more, sort of briefing I think in real life, a lot more explanation, a sort of about the about what you were doing so probably would've been more of that type of thing..." [GP e]

3.3.2.3 The impact of interruptions to the consultation. Interruptions to the consultation are a common occurrence in general practice and cause a distinct break in the consultation. GPs discussed the routine nature of the interruptions and the additional pressures on the consultation. These sub-themes are depicted in Figure 3.4.

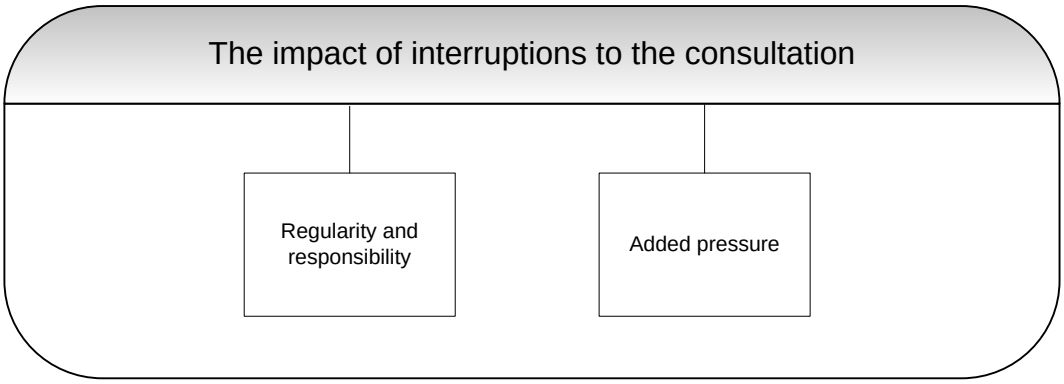


Figure 3.4. Summary of sub-themes in the impact of interruptions to the consultation – GP perspectives.

Regularity and responsibility. GPs described interruptions to the consultation as a usual occurrence. The interruptions that occurred during the simulated consultation workshops were described as being realistic. The impact of the interruptions to the simulated consultations depended on who was responsible for the interruption according to the GPs. GPs indicated that some interruptions were the patient's fault and some were the GPs or that of staff within the practice. GPs indicated that interruptions that were the patient's responsibility were more frustrating than those that were their own responsibility. GPs described patient's mobile phones going off during the consultation as disrespectful as indicated in the following exemplar;

> *"..say somebody's phone goes off I think well it's a bit rude, but they obviously don't understand the etiquette and that's that."* [GP d]

In instances where the interruptions were the GPs responsibility there was a concern from GPs about the impact on rapport. GPs were concerned that an interruption caused by the GP or staff within the practice would damage rapport with the patient.

GPs indicated that this ownership of interruptions influenced the time allocated to a consultation. If the interruption was the responsibility of the GP then flexibility was allowed for the allocation of extra time during the consultation. In contrast, if the interruption was the patient's responsibility GPs do not feel obliged or do not allow extra time to complete the consultation if they do not feel it is necessary. This theme is portrayed in the following two statements from GPs;

> *"..probably the most inconvenient thing for me is if, if the interruption is because the patient has done something then I don't have to take responsibility for it and I don't have to give the patient extra time if they don't need it."* [GP d]

> *"If it was something like an interruption where it was a phone call to me because there was a you know, some major thing that had happened and I had to deal with another patient then I would feel like I needed to give this patient whose sudden, whose there, their full time and then I would run over late.."* [GP d]

Added pressure. GPs described interruptions as increasing the time pressures on the consultation. However, GPs indicated that this also depended on the reasons for the patient's attendance. Despite the increased pressure on time GPs felt that the interruptions did not impact on the flow of the consultation. The following exemplar illustrates this sub-theme;

> *"I felt a bit time pressured particularly the ones where there were interruptions but it depended on clinical content as well. And I felt in some cases...there were some concerns there that I didn't attend to fully because time ran out."* [GP h]

3.3.3 Patient perspectives

The same overall themes emerged when analysing the perspectives of actor-patients participating in the study. These perspectives were obtained from 10 interviews with actors who portrayed patients during the simulated consultation workshops (see Table 3.2, p. 89). The sub-themes differed slightly to those that emerged for GPs, however, as described below.

3.3.3.1 Understanding the general practice consultation. The patients' perspective of the general practice highlighted key factors that influence the general practice consultation. These factors can impact the outcome of the consultation. Patients were given an opportunity to view GP behaviour and subsequent management of their condition in a different light in the circumstances of this study. These sub-themes are shown in Figure 3.5.

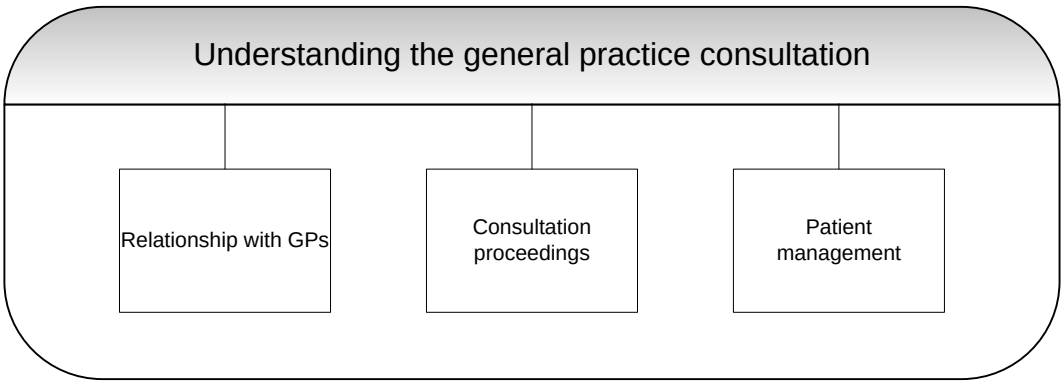


Figure 3.5. Summary of sub-themes in understanding the general practice consultation – Patient perspectives.

Relationships with GPs. The fact that patients did not know the GPs before the simulated consultations, although they were asked to portray regular patients of the GPs, impacted on the consultations. Patients indicated that this differed to usual consultations with GPs. In real-life patients described having an established relationship with GPs that had developed over time. This means that in real-life consultation there are not as many questions regarding the patient's history, as the GP will already have an understanding or at least some recollection of this. This reduces the need for intense questioning. The following exemplar from a patient illustrates this theme;

> *"You usually, because you've built up a relationship with your GP you don't start from scratch so you yeah they know all your history."* [P 3]

Patients indicated that receiving a large number of questions from GPs impacted on the relationship. Patients described presenting a simple scenario to the GPs and receiving excessive questions, which they felt were unnecessary. This caused patients to feel

uncomfortable in the consultation, especially as an actor as they may not have been fully equipped to answer certain questions. The statement below indicates this theme;

> *"I'd gone in for something straightforward and I really didn't think probably I needed to be probed so much particularly considering I'm a person who's telling him that I've managed my asthma since childhood for him to be going into all of that I, perhaps I that made me feel a little bit awkward I suppose even in the consultation but also in the acting role."* [P 5]

Consultation proceedings. Patients indicated that GPs follow a particular pattern when consulting. Patients described this pattern as guiding the flow of the consultation. Patients described a particular proceeding for the commencement of a consultation with the use of specific language. Patients explained that the consultation commences with the GP asking the patient to describe their complaint in a few statements. Following this, a number of questions are posed and examination follows, as illustrated in the following statement;

> *"..they always ask you what you've come in for, but so that's the first thing then they do actually question some of your symptoms and that sort of thing they then sort of go into obviously looking at medical records for other added bits of information and then doing a the examinations. So yeah they do actually follow a pattern."* [P 1]

Patient management. Patients related the experience of consulting six GPs consecutively during the simulated consultations as an opportunity to experience different GPs behaviour. Patients noted the differences in management of the cases by different GPs. Some patients were given noticeably different responses or management plans despite presentation of the same symptoms or condition to all GPs. The symptoms that one GP would detect or pick up on with a patient could differ from what another GP would want to question further with the same patient. The advice or management that one GP would give could differ from what another GP would recommend. Patients indicated that this phenomenon was cause for concern in real-life, as depicted in the following statement;

"Their approaches are all so different so it depends on the doctor you get as to what your outcome is and I know that from in my own experience and I've had recent experience where I have seen doctors, quite a few you know a few different ones for different things and sometimes I think oh thank god I got that doctor because that doctor picked up on what I needed them to do and could…whereas somebody else you know just…so it's not so serendipitous as to whether you get someone who's gonna pick up on your problem or investigate it fully." [P 5]

Patients described differences in the call back periods they received from the GPs in the simulated consultations. They also described differences in the amount of questioning they received, which they reported as surprising. Patients described feeling less confident in recommendations made by GPs due to these differences, and an inability to determine which one was correct. The following two statements indicate these concerns;

"It was quite interesting because they were I didn't expect them to be so different in their thoroughness some people were very thorough and asked me about my history and medications and all sorts of things where as other people didn't do that. So I don't know, I, that was surprising." [P 5]

"*I got different responses from the doctors and therefore I wondered really which ones I could feel confident about what they'd said to me and which ones I perhaps wouldn't have been so confident about."* [P 5]

3.3.3.2 The phenomenon of simulated consultations. Patients indicated that participating in simulated consultations was an unusual experience that differed from a real life consultation. Patients felt that they behaved in a slightly different manner to a real-life consultation. These sub-themes are depicted in Figure 3.6.

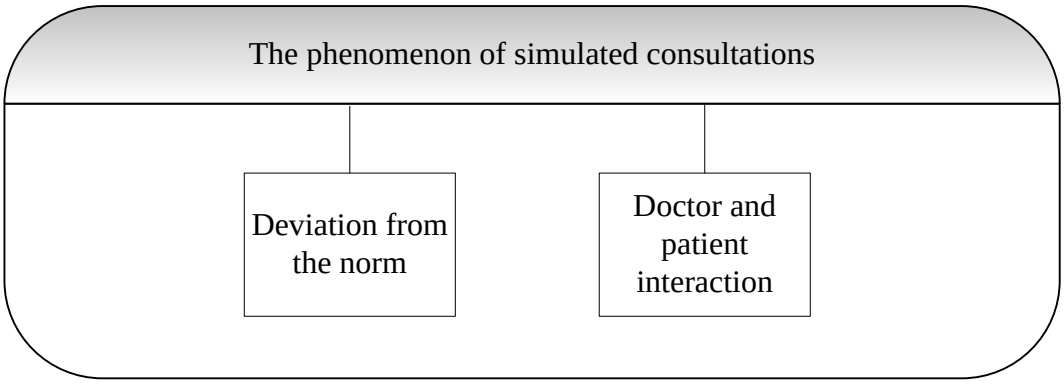


Figure 3.6. Summary of sub-themes in the phenomenon of simulated consultations - Patient perspectives.

Deviation from the norm. Patients felt that it took a number of consultations for both GPs and patients to fully understand the proceedings during the simulated consultations. Because no physical examinations were required, the procedure for this section of the consultation felt unnatural for patients. Patients indicated that although they were presenting to the GPs as per a real-life consultation there was still an artificial element to the consultation.

> *"I felt that both of us, I knew and they knew that they were, that they were the GP and I was presenting symptoms that were written down on a piece of paper as I much as I tried to make it as natural as possible. But that… that particular woman wasn't me."* [P 3]

Doctor and patient interaction. Patients indicated that acting as a particular patient during the simulated consultations altered their behaviour from a real life consultation. Patients found that they asked fewer questions as an actor-patient compared to a real life consultation. Patients explained that their lack of questioning was due to the fact that they were trying to portray the same scenario to each GP by offering the same amount of information.

> *"Once I had gone through the first consultation I felt that I needed to make sure that I stayed very similar for the others so although their part of it varied a bit I*

didn't respond probably where I might of in a consultation but I wanted to model myself back on that first consultation again and stay the same." [P 5].

3.3.3.3 The impact of interruptions to the consultation. Patients observed the impact of interruptions to the consultation on GP behaviour. Patients felt that GPs were able to maintain the consultation proceedings but in some cases a degree of pressure was added. These sub-themes are shown in Figure 3.7.

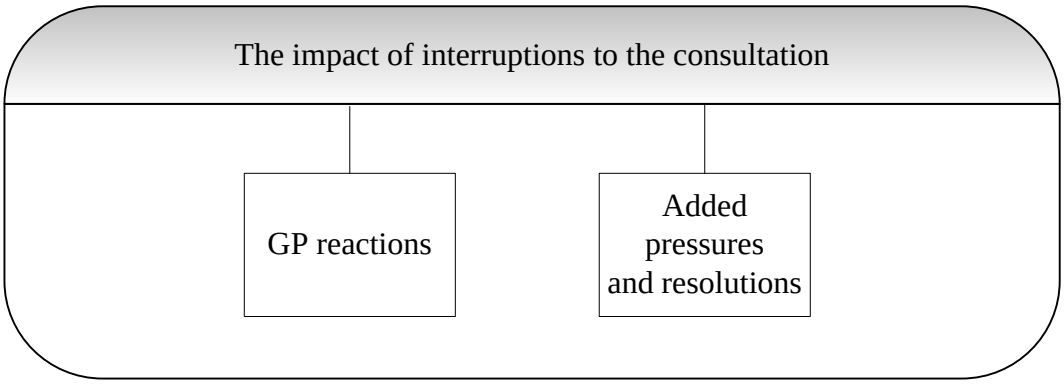


Figure 3.7. Summary of sub-themes in the phenomenon of simulated consultations – Patient perspectives.

GP reactions. Patients felt that GPs handled the interruptions well during the simulated consultations and were able to stay with the course of the consultation. Patients indicated that GPs were disrupted momentarily but they were able to maintain the consultation and continue in an appropriate manner. This theme is illustrated in the exemplar below;

"…it seemed to, it threw him a little bit I think, but he got back on track, on track very quickly… he seemed to be able to stop thinking about that and get back to me." [P 5]

Patients noticed that GPs were more disrupted by the type of interruption. In particular, when the consultation was disrupted by someone entering the room the GPs reacted more obviously. Patients indicated that this disturbed the flow of the consultation, as indicated in the exemplar below;

"…this particular doctor sort of sits in a particular way and had to move away from the desk so the person could have access to the screen and had to take my information off the screen to put it on and that was just fascinating to watch yes you know the flow had been disrupted." [P 3]

Added pressures and resolutions. Patients described instances where interruptions to the consultation impacted on time during the consultation. This also depended on the type of interruption. In one instance the GP ran out of time due to the interruption. In another the GP was able to complete tasks or consider the patient's condition while the patient was out of the room. This meant upon her return, the consultation progress quite quickly. These instances are described in the statements below;

"There was one doctor who there was an interruption but he'd already started talking giving information and he just ran out of time completely….he was ok with the interruption and as far as the consultation went it was fine, but he didn't have enough time." [P 2]

"One where I had to go out and turn off my lights I think that gave him time to actually plan he seemed quite you know on the ball you know because it was obviously time for him to actually think while I was outside of the room." [P 1]

Patients described the method that GPs used to recommence the consultation after an interruption had occurred. This involved the GP repositioning themselves towards the patient to focus on the consultation at hand. Patients indicated that by doing so, GPs were adjusting themselves to recommence the consultation where it had left off.

"..he had been facing me, but he sort of moved himself back and positioned himself back in direct face to face contact with me, so he turned from the phone, positioned himself back to where he was, looked me in the eye and said, perhaps he paused for a couple of seconds, and said ok you know he might of said where were we or something but I could tell he was reorienting himself, but I did feel that he was he had moved his focus completely back to me again." [P 5]

Patients indicated that GPs repositioned themselves following an interruption, in order to recommence the consultation. This adjustment made patients feel as though they had regained the GPs full attention, they had been reacknowledged, and that the GP was ready to continue with the consultation.

3.4 Discussion

3.4.1 The doctor-relationship

In this study, GPs described the experience of developing relationships with patients over time. These encounters created the sense of a conversation that continued from one consultation to the other. Similarly, patients described having an established relationship with GPs that had developed over time. GPs described this familiarity with patients as enhancing the flow of the consultation. Pendleton et al. (2004) described the development of this relationship as though each consultation was a brick in a wall, whereby more and more personal information from the patient is gathered over time. Freeling and Harris (1984) stated that consultations involve the exchange of information between the patient and GP, which occurs over a number of consultations. In general practice, this exchange is never really completed (Freeling & Harris, 1984).

Howie et al. (1999) found in their study of the quality of care in diverse locations in the UK, that there are benefits for the patient and GP such as increased enablement and compliance when patients' feel as though they know the GP. Patients in the current study felt that in real life consultations, compared to simulated consultations, there are not as many questions about the patient's history, as the GP already has an understanding or some recollection of this information. Beullens et al. (1997) stated that the simulated consultation method is less appropriate to study the development of the doctor-patient relationship, because the relationship extends over several consultations. Simulated consultations, in contrast, are usually one-off events therefore only observing and addressing the requirements of that particular simulated consultation.

Despite the enjoyment, and enhancement of the consultation that GPs described the familiarity with patients, as providing, GPs admitted that they did not necessarily remember the conversation they had had previously with patient. In these instances, GPs felt it necessary to give the patient the sense that they did. Roter and Hall (2006) stated that patients need to feel that their doctors take an interest in them as individuals, like them and are genuinely concerned about them. This behaviour by GPs can be described in terms of symbolic interaction where they feel obliged to give the patients the impression that they remember their previous consultations, in order to make patients feel as though they are interested, a behaviour which is expected of GPs.

Similarly, GPs in the current study stated that they proceeded with certain tasks during the consultation even though they were not necessary for their medical judgement. GPs indicated that they behaved in particular ways based on expectations from patients. GP behaviour was illustrated in some instances as being a show for patients, a rendition of the patients' expected behaviour for the GP. In these instances GPs are also behaving according to symbolic interaction, whereby they are expected to perform certain tasks, due to the role that they play when interacting with patients. Roter and Hall (2006) stated that the doctor-patient relationship is predicated on the expectations each holds for the other. Freeling and Harris (1984) stated that the relationship between the doctor and patient can be explained by 'role-theory'. Freeling and Harris describe the initial consultation between patient and GP playing out according to role-behaviour. That is, the behaviour is determined by the role they were playing at the time (Freeling & Harris, 1984). GPs may feel obligated to perform specific tasks or examinations during the consultation based on expectations of their role, leading to patient satisfaction, rather than because it is worthwhile.

3.4.2 Model of the consultation

A number of GPs referred to an underlying framework for the consultation involving history-taking, physical examinations and investigations, and management planning. Patients in this study indicated that GPs follow a particular pattern when consulting, which was described as guiding the flow of the consultation. Although GPs recognised this framework they indicated that they did not necessarily follow it during the consultation. Byrne and Long (1976) stated from their review of almost 2,500 audio-recorded consultations that this is the standard medical model of the consultation, and indicates what is happening in terms of medical procedures. Byrne and Long outlined that this model does not convey the process that is going on between the two parties involved in the consultation. Byrne and Long outlined the six phases of the consultation, which includes both relationship, and medical aspects of the consultation. The authors highlighted that the logical form of the six phases rarely appeared in practice and should be seen as an ideal (Byrne & Long, 1976). In some consultations GPs stated that they manoeuvred to un-successive phases depending on their thoughts regarding the patients' condition or patients' concerns. GPs in the current study referred to the underlying

medical framework for the consultation, but also highlighted the importance of the relationship with the patient, and the impact that this has on the flow of the consultation.

3.4.3 The opening sequence

GPs described the consultation commencing by making patients feel comfortable and giving them time and space to tell their story. Determining the point at which the GP should interject was described by GPs in this study as an art-form, particularly if the patient had not completed their initial dialogue. This interjection was described as a method for keeping the consultation on task and on time. GPs indicated that getting this timing wrong could be considered offensive by the patient, and be detrimental to the doctor-patient relationship. Beckman and Frankel (1984) conducted a study to investigate the GPs' role in soliciting and developing the patients' concerns during the opening sequence of the consultation. Beckman and Frankel observed 74 consultations and found that during only 23% of consultations were patients allowed to complete their opening statement regarding the reason for attendance. The authors stated that during 69% of consultations the patients' statement was interrupted by the GP following a specific line of questioning (Beckman & Frankel, 1984). Beckman and Frankel stated that the consequence of even minimal interruptions to patients' opening statements can prevent other issues being raised, or if raised, not until later in the consultation. This can result in the potential loss of relevant information (Beckman & Frankel, 1984).

Silverman et al. (1998) stated the importance of building the relationship between patient and GP from the beginning of the consultation. The authors described methods such as demonstrating interest, concern and respect for the patient, with the use of non-verbal behaviour as crucial for a collaborative relationship (Silverman et al., 1998). This makes the patient feel welcomed, valued and respected, and ultimately gains their trust.

3.4.4 Management of patients during simulated consultations

Patients related the experience of consulting six GPs consecutively during the simulated consultations, and noted the differences in management of their scenarios by different GPs. Patients indicated that the symptoms that one GP would detect or pick up on could differ from what another GP would want to question further. Similarly, the advice or management that one GP would give could differ from what another GP would recommend. This research provided a unique opportunity for patients to experience

what it would be like to consult different doctors consecutively with the same condition. The nature of this situation was described as 'serendipitous' for the patient as to whether their condition would be managed appropriately. Gandhi et al. (1997) conducted a study to determine the reason why patients change their GP. Ghandi found from interviews with, and letters from patients four main categories of reasons for changing GPs. These were accessibility, attitudes, management issues and doctor characteristics (Gandhi et al., 1997). With regard to the management issues, dissatisfaction with the diagnosis was a concern for some participants. One scenario involved the patient obtaining a second opinion after being dissatisfied with the first assessment. The second opinion was vastly different, and the incident reportedly "shook the patient's confidence in the practice" (p. 53). In the current study, patients may have been confused, uncertain, and unable to trust the GPs' recommendations considering such a variety of diagnoses and management plans were offered by the participating GPs.

GPs in the current study stated that the patient's behaviour or reactions were described as altering how much information was given, and whether the patient was offered a referral to a specialist. The patient's, and doctor's ability to relate to a variety of doctors, and patients varies; therefore the management or advice they are offered or provide may vary. Gafaranga and Britten (2003) stated that mutuality and concordance develops through the interaction between doctor and patient. Cox (1999) stated that how the patient and doctor interact varies with how the patients' and doctors' style and intentions mesh. The difference in management of the actor-patients in the current study may have been due to the fact that the patients were not patients of the participating GPs, and therefore the relationship had not developed over time. As a result, the collaborative partnership between the two parties involved was diminished. Gafaranga and Britten noted from their review of audio-recordings for 62 patients consulting 20 GPs that a key feature of the general practice consultation is that each consultation is one in a series of consultations. Each consultation has a preceding consultation, and potential subsequent consultation (Gafaranga & Britten, 2003). For patients consulted in the current study, subsequent consultations may have resulted in more comparable outcomes from each of the GPs.

3.4.5 The use of simulated consultations

In this study, GPs indicated that the lack of physical examination during the simulated consultations affected the reality of the consultations. Beullens et al. (1997) stated that a disadvantage of the use of simulated patients is the limitations in terms of symptoms and syndromes that can be simulated on physical examination. It would be unethical and inappropriate to request an actor-patient to undergo invasive physical examinations for research purposes. Because no physical examinations were required, the procedure for this section of the consultation felt unnatural for participants. Both GPs and patients needed to perform several consultations before becoming accustomed to the examination proceedings of use of a card with examination findings on it. Patients indicated that although they were presenting to the GPs as per a real-life consultation there was still an artificial element to the consultation. The use of the examination card as opposed to a physical examination may have influenced the reality of the consultation.

GPs also indicated that at times, they were not behaving as they normally would due to the additional pressure of the video camera being in the room. Beullens et al. (1997) stated in their review of the literature regarding simulated patients, that direct observation methods can cause a behavioural change, known as the Hawthorne effect (Roethlisbgerger & Dickson, 1972), as the GP knows that he/she is being observed. GPs stated that they felt expected to behave in a particular way, rather than their usual way. They also felt pressure to manage patients in the 'right' way. This can also be explained by symbolic interaction, where expectations are placed on the GP due to the interaction that is taking place. Pringle and Stewart-Evans (1990) conducted a small study to determine whether the GPs' awareness of being video recorded during the consultation altered their behaviour. Pringle and Stewart-Evans found no significant differences between GPs' behaviour when they were aware or unaware of the video-recording, using an objective coding schedule. Coleman (2000) in his review of the literature regarding the use of video for researching the general practice consultation, argued that Pringle and Stewart-Evan's instrument only measured certain aspects of the doctor-patient interaction, and that other areas that were not measured may have been influenced by awareness of being video recorded. Additionally, Coleman stated that this study only involved four GPs, which limit the generalizability of the findings. Patients in the current study described presenting a simple scenario to GPs and receiving

excessive questions, which they felt, were unnecessary. This excessive questioning may have been due to the GPs attempting to behave in the 'right' way due to being observed.

GPs indicated that in real life if a patient was diagnosed with a serious illness or was referred on to a specialist for further investigation they would want to know more about why and what the results may mean. Similarly, patients in the current study found that they asked fewer questions as an actor-patient compared to a real life consultation. This finding is in contrast to that of Kinnersley and Pill (1993), who investigated the detection of simulated patients by GPs in consultations. Kinnersley and Pill found that participating GPs indicated that the simulated patients were believable but that three out of eight GPs said they were dissimilar to patients that they saw in their own practices. These GPs stated that the simulated patients were more assertive and asked more questions than real patients (Kinnersley & Pill, 1993). The amount of questions that simulated patients ask GPs during simulated consultations in order to seem realistic, may depend on the amount of training they receive. Actor-patients in the current study could have received further training on the scenario they were presenting, and the likely questions they should ask of GPs. GPs also indicated that because the patients were actors the emotional aspect of the consultation was diminished. This aspect of the consultation could have been improved with further training of the actor-patients, which has been addressed in similar, more recent studies (Jiwa, Mitchell et al., 2010; Jiwa, O'Shea et al., 2010; Halkett et al., 2011).

3.4.6 Interruptions to the consultation

GPs described interruptions to the consultation as a usual occurrence. Shvartzman and Antonovsky (1992) stated that many GPs in Israel would confirm the widespread existence of the interrupted consultation. In the current study, GPs indicated that some interruptions were the patient's fault and some were the GPs or that of staff within the practice. GPs indicated that the interruptions that were the patients' responsibility were more frustrating than those that were their own responsibility. Shvartzman and Antonovsky found that three quarters of the interruptions to the consultation in their study were accounted for by actions of personnel of the health centre. However, the differences in practice between Israel and Australia, such as storing patient files in the consulting room, makes it difficult to compare these findings to Australian practice. In some instances where the interruptions were the GPs' responsibility there was concern

from the GP about the impact on rapport, which may have been detrimental to the relationship with the patient. Shvartzman and Antonovsky stated that the relationship between doctor and patient in general practice can be a powerful therapeutic tool. However, this is dependent on the interaction taking place in a relaxed, uninterrupted context (Shvartzman & Antonovsky, 1992). The interruptions to the consultation in the current study may well have impacted on the relationship between the GP and patient, as patients noticed that GPs were more disrupted by certain types of interruptions, compared to others. For example, patients noted that when the consultation was disrupted by someone entering the room, the GPs reacted more obviously. The impact of the interruption to the consultation on the doctor-patient relationship requires further investigation.

GPs in the current study described interruptions as increasing the time pressures on the consultation but did not impact on the flow of the consultation. Patients described instances where interruptions to the consultation impacted on time during the consultation. Howie et al. (1999) found in their investigation into the quality of general practice consultations that interruptions increased the length of the consultation on average by two minutes. Cooper, Rout and Farager (1989) conducted a study to identify sources of job stress among GPs in the UK. These authors found that interruptions at work were a source of stress for GPs, and contributed to job dissatisfaction and animosity. The time pressures created by the interruptions to the consultation in the current study may have caused greater stress to participating GPs. This may be due to GPs needing to ensure the consultation was completed thoroughly and in a timely manner.

Patients in the current study felt that GPs handled the interruptions well during the simulated consultations and were able to stay with the course of the consultation. Patients indicated that GPs were disrupted momentarily but they were able to maintain the consultation and continue in an appropriate manner. Trafton et al. (2003) stated in their investigation into the resumption of an interrupted task, that when subjects are more practiced in being interrupted and resuming the task at hand they are better at it. As GPs may be interrupted on a frequent basis, they may have become skilled in resuming with the consultation after the interruption has been completed. Patients described the method that GPs used to recommence the consultation after an

interruption, which involved the GP repositioning themselves towards the patient. Patients indicated that by doing so, GPs were adjusting themselves to recommence the consultation where it had left off.

In summary, the results of this study show that GPs and patients described the relationship they have as establishing over time, much like a continuing conversation, which supports previous reports (Freeling & Harris, 1984; Howie et al., 1999; Pendleton et al., 2004). GPs indicated that an established relationship with patients enhanced the flow of the consultation. GPs reported that they did not necessarily remember the conversation with patients from the previous consultation but gave the impression that they did. In these instances GP behaviour can be explained by symbolic interactionism, whereby certain behaviours are expected of the GP. Similarly GPs reported behaving in a certain way during the consultation based on their perceptions of expectations from patients.

In this study, GPs and patients indicated that GPs follow an underlying framework during the consultation, which has been described as the traditional medical model (Byrne & Long, 1976). GPs reported manoeuvring to un-successive tasks based on their thoughts or the patient's condition or concerns. This study showed that patients reported variability in management of their condition by different GPs, described as being 'serendipitous', highlighted by the opportunity of consulting six GPs consecutively. GPs reported that the patient's behaviour or reactions were described as altering their management of the patient.

The results of this study show that GPs described interruptions to the consultation as a usual occurrence, which supports previous findings (Shvartzman & Antonovsky, 1992). Patients reported that GPs handled the interruptions well during the consultation. GPs indicated that interruptions do not affect the flow of the consultation. In this study, GPs and patients described differences in the simulated consultations compared to real life. The simulated consultations were reported to differ because of the lack of physical examination, fewer questions from patients, excessive questions from GPs, and a decreased emotional component of the consultation. GPs reported behaving in a different way, an 'expected' or 'right' way, due to the additional pressure of the video

camera, which contrasts previous findings that GPs behaviour did not alter when they were aware or unaware of being video recorded (Pringle & Stewart-Evans, 1990).

This study found evidence of an underlying framework for the consultation, however, GPs described not following this sequentially. Additionally, this study showed that GPs and patients described the doctor-patient relationship as developing over time; however, GPs gave the impression to patients that they remembered previous conversations even if they did not. With regard to interruptions to the consultation, this study showed that these are a common occurrence. Patients believed that GPs handled the interruptions well despite the impact that these might have on GP rapport with patients. Again, there were several limitations to this study, which are discussed with the limitations of the overall research, in the final chapter of this thesis (p. 154).

CHAPTER 4

Study 3: The rituals of medicine: Participant validation

4.1 Introduction

Video recordings are a useful tool for observing and analysing behaviour. Videos have long been used in medical education and training (Heath, Luff, & Sanchez Svensson, 2007). The use of video recordings of behaviour in training programs for medical professionals began in the early nineteen seventies (Heath et al., 2007), and became increasingly widespread in the early nineteen eighties (Hargie & Morrow, 1986). Much research into the general practice consultation and attempts to describe models for GP behaviour has also included the use of video. Heath et al. (2007) described the marked increase in the use of recorded observations of behaviour to investigate behaviour in medical settings. This is due to increasing recognition of the importance of nonverbal communication in health care (Heath et al., 2007).

Coleman (2000) detailed the advantages of using video recorded consultations in his review of the use of video in primary care research. These included creating a complete record of the consultation for repeat viewing, and for a number of researchers to view; allowing all aspects of the consultation to be viewed at once; and making it possible for participants (GPs and patients) to comment on the recordings rather than recalling the event (Coleman, 2000). Similarly, Hargie and Morrow (1986) noted the advantages of the use of video in a training program context as providing accurate feedback, increasing motivation, creating an opportunity for in-depth analysis of behaviour, encouraging a sense of self-awareness, and resulting in a positive behavioural change.

Pendleton et al. (1984) conducted early work making use of video recordings in general practice research. Pendleton et al. reviewed video recordings of consultations in order to describe their seven-task model of the consultation. Pendleton et al. also detailed the consultation mapping technique, an observational method in which medical students and GPs could be given feedback regarding their performance. This method involved observing the consultation and making note of attempts to complete each of the seven tasks described in their model. Despite the description of this model, Pendleton et al. did not pursue any research incorporating this method.

Arborelius and Bremberg (1992), however, conducted research in general practice involving the consultation mapping technique (Pendleton et al., 1984). Arborelius and Bremberg compared consultation maps for 46 consultations that were deemed positive or negative. The authors found that positive consultations could be described as those in which the GP and patient were in agreement as to why the patient was there, and those in which the GP attempted to involve the patient more, seeking their ideas and concerns regarding the illness. These findings could be seen visually as time spent on certain tasks during the consultation (e.g. patient's ideas, patient's concerns, shared understanding). In this study, however, the researchers determined whether a consultation was positive or negative by estimating the participant's satisfaction based on their comments on the video (Arborelius & Timpka, 1991). Participants were not directly asked about their satisfaction with the consultation. The reliability of the findings are therefore questionable as estimating satisfaction is a subjective measure, in that it depends on the opinion of the researcher carrying out the estimations. This study is important, however, in that it highlights how combining video recordings with consultation maps can draw attention to specific behaviours during the consultation.

Arborelius and Timpka (1990a, 1990b, 1991) also conducted a series of studies investigating the doctor-patient relationship using the 46 video recorded consultations described above. Participating GPs (n=12) and patients (n=46) were asked, on separate occasions, to view the recordings and comment on the consultation spontaneously. These comments were then analysed and reported. The authors found that in most cases patients and GPs were able to relive the consultation when prompted by the video (Arborelius & Timpka, 1990b). Arborelius and Timpka (1990b) found that a wide range of comments were elicited concerning both positive and negative experiences. The key finding of this research was that GPs experience difficulty in determining the patient's main reason for attendance. More comments from participants may have been elicited, however, and perhaps have been more useful, if they were prompted to discuss specific aspects of the consultation, rather than at their discretion. Additionally, some participants may have been more forthcoming about negative experiences rather than positive, and some participants may have been more vocal than others, variables that may have impacted on the results. However, this study highlights the way in which video can be used to prompt discussion regarding the consultation, and interaction between the doctor and patient.

Saba et al. (2006) utilised video recordings of 18 consultations in their research into shared decision-making in primary care. Following the recording and observation of the consultations, the researchers coded and edited small segments of video that showed moments of the consultation where decision-making was occurring. These segments of video were played back to participating patients and GPs to trigger their memory of the event. Saba et al. described the play back of consultation footage as a 'stimulated recall' session, which draws out participants subjective experiences of the consultation. Saba et al. coded the participants responses to the stimulated recall session and combined these with the results of the video observation. The authors found that GPs and patients had differing experiences regarding decision-making and that engagement in shared decision-making could be classified into four groups, these being: full engagement, simulated engagement, assumed engagement, and nonengagement. Saba et al. stated that dynamics in the relationship between doctor and patient such as trust and power, influence collaboration or the perception of collaboration in the decision-making process. Saba et al., however, used convenience sampling to recruit the GPs (n=3) for this study. This sampling technique, combined with the small sample size, raises questions as to the ability to apply these findings to other GPs. However, this study is an important methodological development in understanding the doctor-patient relationship as both participant's experiences can be observed and considered. Additionally, this study highlights how responses to stimulated recall combined with observation of video can enhance understanding of certain aspects of the consultation.

Coleman and Murphy (1999) incorporated video recordings and stimulated recall to investigate GP's decisions to discuss or not discuss smoking during consultations with patients who smoked. Consultations were video recorded and reviewed by the researchers. Selected consultations were played back to GPs, to stimulate recall, prior to completion of a semi-structured interview. The authors stated that the video play back served as an 'aide-memoire' for the interview, and aimed to draw GPs' attention to their consulting behaviour in order to make comment (Coleman & Murphy, 1999). Coleman and Murphy described the difficulties faced using these methods, which included: difficulty recruiting GPs to participate, the logistics of collecting the data, and the time taken to analyse the recordings, all of which can be laborious. Coleman and Murphy noted, however, that GPs expressed surprise when shown the footage of their

consultation behaviour, and stated that the video footage encouraged them to analyse their behaviour. Coleman and Murphy concluded that this technique would be most beneficial for research into aspects of the consultation that GP's take for granted or give little thought to. This study was important because it was the first to combine video recordings, stimulated recall and interviews in research focussing on an aspect of the general practice consultation. Additionally, despite the difficulties faced carrying out the research, the authors described unexpected findings from these methods, that being GP intent to examine behaviour during the consultation.

Similarly, Als (1997), in her study into GP use of the computer during the consultation found that when video footage of consultations was played back for GPs, they were often surprised at how their behaviour looked on the video. Als interviewed five GPs prior to video recording their consultations, and noted that they described the computer as a neutral instrument. However, in interviews after viewing themselves consulting, GPs were surprised at how often the computer was actually used to guide conversation or allow time for them to consider the patients' condition. Als found that this methodology demonstrated intent to change behaviour because GPs indicated that after watching themselves on video they would use the computer less, or at different times during the consultation, or reposition it in their consulting room. This study highlights that GPs were not aware of their behaviour until it was pointed out, and they could observe, and comment on it. The findings of this study are important as it shows how the use of video playback to GPs can prompt analysis of behaviour and encourage intent to change behaviour.

More recently, Iedema et al. (2006) investigated the impact of a redesign of a spinal pressure area clinic on the relationship between spinal clinicians and their patients. Patient consultations, clinical case conferences, team meetings and ad hoc clinician discussions were captured on video and played back to clinicians for review. Iedema et al. described this feedback as a video reflexivity session, and stated that clinicians noted on a number of occasions, their surprise at observing their behaviour on video. The video feedback allowed clinicians to appreciate the complexity of their tasks, and gave an alternative viewpoint on how they carry out their work (Iedema et al., 2006). Iedema et al. (2007) reiterated this finding after video recording pathology laboratory scientists performing specific tasks. After this video reflexive work Iedema et al. stated that the

impact of video playback on participants produced two results: reflection ('discourse') and elicitation ('redesign'). The scientists were able to see their work and behaviour differently, initiating discussion, and redesigning, the way in which they conduct their work (Iedema et al. 2007). The selection of video for screening during these sessions comes into question, however, as this could influence specific areas for discussion and redesign. Certain departments or individual clinicians could potentially be singled out due to only segments of video being shown, or the context of the situation being removed. This may give rise to conflict within the medical setting rather than improvement. These studies, however, are important in that they show how video footage can be used to understand and interpret behaviour from a variety of perspectives. Additionally, the ability to make improvements to the way in which healthcare is provided, through the use of video, is emphasized.

Carroll et al. (2008) incorporated a video reflexivity session during an investigation into clinical communication within an intensive care unit (ICU). The authors suggest that observing video recordings of behaviour can dramatically impact on experiences (Carroll et al., 2008). Eight hours of video footage of formalized periods of medical communication in the ICU was reviewed for key themes. A ten-minute DVD of specific footage that portrayed these key themes was developed and played back to a number of ICU clinicians for group discussion. Carroll et al. found that the clinicians acknowledged that being confronted with the video footage allowed them to understand their practices in a new way. The selection of ten minutes of footage for the DVD from eight hours of video footage in this study, however, highlights the difficulty, and importance of choosing content that accurately represents the research question at hand.

More recent work by Iedema et al. (Iedema, 2011; Iedema & Carroll, 2011; Iedema, Merrick, Kerridge et al., 2009; Iedema, Merrick, Rajbhandari et al., 2009) has continued with the use of video reflexivity with regard to safety in health care. Iedema, Merrick, Kerridge et al. (2009) and Iedema, Merrick, Rajbhandari et al., 2009) utilized video reflexive methods to investigate clinical handover practices in an ICU in a metropolitan hospital, and an emergency department (ED) in a regional teaching hospital. Iedema, Merrick, Kerridge et al. (2009) reported the strength of the use of video feedback as an intervention, as it acted as a catalyst, and achieved change in practice. Iedema, Merrick, Rajbhandari et al. (2009) stated that when clinicians watch footage of themselves they

are interested in their strengths and motivated to address issues with their practice. Iedema, Merrick, Kerridge et al. (2009) and Iedema (2011) differentiated between reflection and reflexivity and stated that reflection focuses on individuals and their past actions while reflexivity denotes collaborative reflection on tasks or events at hand. These studies highlight how playback of video footage for discussion in a group setting can allow for better understanding of particular aspects of health care, enable reflection, and promote improvements in the way that tasks are carried out in the future.

Mohrman et al. (2001) described group reflection, as a Joint Interpretive Forum (JIF), in which people are brought together to jointly reflect, discuss and interpret information. Halkett et al. (2009) utilised a JIF during a multi-method investigation into the role of radiation therapists and radiation oncology nurses in providing information to patients. Key segments of video recordings of simulated radiation planning sessions were played back to a group of radiation therapists, and to a group of radiation oncology nurses for comment. Discussion around the provision of information was prompted, and provided an opportunity for brainstorming as to how things could be improved. Halkett et al. showed that radiation therapists play an important role in providing information to patients, however, have little time in which to do so, due to the task at hand (providing radiation therapy). A 'consultation' for patients with radiation therapists prior to commencing radiation therapy was proposed during the JIF. A limitation of this research, however, was that two separate JIFs were held with radiation therapists, and radiation oncology nurses. To fully understand each of these roles it would have been beneficial for these groups to discuss, reflect on, and consider improvements as one group. However, this study highlights how group discussion, and reflection, prompted by video, can promote changes to behaviour in order to improve health care. Halkett et al. stated that the JIF also allowed for triangulation of data collected from other methods in the investigation.

These studies indicate the benefits of the use of video observation, stimulated recall, and interviews in health research in that they can draw particular focus to, and enable further understanding of certain aspects of the consultation by drawing on a variety of perspectives. These methods promote reflection and analysis of behaviour, and can prompt intent to change and improve behaviour. Additionally, the use of stimulated recall can triangulate findings from other research methods.

4.1.1 Aims

The aim of this study was to explore participant perspectives' on patient and GP behaviour during the consultation, using video footage captured during Study 1 as a prompt for discussion.

The research questions guiding the research were:

1. How does a GP describe their behaviour during particular phases of the consultation?
2. How does a patient describe their behaviour during particular phases of the consultation?
3. Can these perspectives be used to describe other GP or patient behaviour during a consultation?

The rationale for this study was to further understand why GPs and patients behave in certain ways during the general practice consultation and after an interruption to the consultation. In particular, patient and GP perspectives were sought in order to triangulate findings from Study 1 and 2. Understanding GP and patient awareness of, and perspectives on specific behaviour during the consultation will highlight areas that patients feel need to be addressed or improved, and those that GPs believe require attention. Additionally, aspects of the consultation that GPs and patients have differing opinions on will be indicated. In these circumstances, areas for improvement and greater awareness on behalf of GPs will be provided.

4.2 Method

Ethics approval for this study was obtained and was described in Study 1 (p. 42).

4.2.1 Participants

The GPs and actor-patients who participated in this study have been described in Study 1 (p. 42).

4.2.2 Materials

Following analysis of the recordings of the simulated consultations and transcription of participant interviews, segments ("snippets") of the video recordings were selected for discussion at a Joint Interpretive Forum (JIF). Video was selected based on its portrayal of key themes identified from the participant interviews and variables under analysis. The video was 'snipped' using video editing software (Ulead VideoStudio 9.0). One of the research supervisors and a GP involved in coordination of the broader concurrent study viewed the selected snippets prior to the JIF to ensure appropriateness and endorse the video footage. They confirmed that the content and length of the video footage chosen accurately portrayed the key themes for discussion and approved use of the video.

The majority of the video snippets involved participants who confirmed that they would be attending the session. However, in some instances footage of other participants was more appropriate to aid discussion of the key issues. Permission was sought from all participants who featured in the snippets to screen the footage at the JIF.

The video snippets were embedded into a PowerPoint presentation that provided a summary of the case studies involved. A blank template of the consultation map was also developed for use at the JIF and is shown in Appendix D.

4.2.3 Procedure

Following the simulated consultation workshops participants were invited to attend the JIF. The session involved playing back the snippets of video footage from the simulated consultations to those in attendance. The session was facilitated by a GP involved in organisation of the simulated consultations and the researcher. Another GP employed at

the WA Centre for Cancer and Palliative Care at Curtin University also attended the session to aid discussion of general practice consultations generally, where appropriate. Their experience in general practice was sought when discussion centred around consultations on the whole, rather than those specific to this research.

Participants were asked to provide a commentary of the behaviour seen on the video, and discuss their experiences during the simulated consultations based on the video footage. Participants were asked to relate these experiences back to 'real life' general practice consultations where possible. An example of the procedure for one theme discussed at the session is shown in Figure 4.1. The JIF was audio recorded.

Towards the end of the session, the process of consultation mapping was explained. Participants were provided with the blank template of the consultation map and asked to plot a typical consultation drawing on their own experience.

Following the completion of the JIF, a summary of the findings was prepared in tabular format with columns for consensus and comments. The summary of the JIF was posted to those GP participants that did not attend the session seeking endorsement from the wider group. GPs were asked to agree or disagree with the content and underline sections of the summary that they did not agree with. This method replicates that used by Jiwa et al. (2007) in their investigation into factors influencing the speed of cancer diagnosis in rural Western Australia. In this study, however, the results from a structured review of clinical incidents (Clinical Risk Unit, 2011) with GPs were summarised and posted to a broader group of GPs for consensus.

The cover letter sent to GPs and the summary of the session is shown in Appendix E and G. Participant validation involves checking research findings with participants involved in the research (Mays & Pope, 2006). This technique compares accounts of those being investigated, and the researcher (Mays & Pope, 2006).

The blank template of the consultation map was also sent to the wider group of GPs who participated in the simulated consultation workshops for completion. GPs were asked to plot a typical consultation of their own, from start to finish, on the map.

Theme: Impact of interruptions to general practice consultation

Video content: GP interrupted by member of staff trying to locate patient file.

Video A: whole interruption shown

Video B: physical interruption removed from consultation

- Show snippet A
- Ask open-ended questions (Talk to me about that, why did that happen, could it be that, how did you come to that decision, was there any uncertainty there, what influenced that….)
- Show snippet B
- Ask specific questions: (Did you feel that the interruption impacted on your consultation? What did you do to retrace your steps so that you could continue? How did you refocus yourself? What did you think that the other participant thought?)

Figure 4.1. Example of proceedings during the Joint Interpretive Forum.

4.2.3.1 Data analysis. The audio recording from the JIF was transcribed verbatim and reviewed, and the responses to the postal survey were analysed descriptively.

Finally, the findings from all studies in the research program were compared in order to triangulate the data. Data triangulation involves the comparison of results from a minimum of two different data sources (Mays & Pope, 1995, 2006). Triangulation indicates support for a research finding by demonstrating independent measures obtaining the same result (Miles & Huberman, 1994).

4.3 Results

4.3.1 Joint Interpretive Forum and stimulated recall

One representative GP and one representative actor-patient attended the JIF. Four excerpts of video recordings were screened for comment and discussion. Two snippets of video prompted discussion around communication in the consultation, specifically around beginning a consultation, undertaking a thorough history and examination, managing the patient, and terminating the consultation. Two snippets prompted discussion of interruptions to the consultation, and the impact on GP behaviour. Discussions around the use of simulated consultations also took place. Issues that participants spoke of during the JIF were grouped and categorized into these key themes (see Appendix F).

4.3.2 Postal survey responses

Four out of eight GPs responded to the postal survey (response rate of 50%). GPs were asked to indicate whether they agreed or disagreed with the content. Respondents were required to underline sections of the JIF summary that they did not agree with. In most cases, where a response was indicated, GPs agreed with the findings of the JIF. In particular, respondents agreed with statements regarding the opening sequence. These being, that the opening sequence is important to the outcome of the consultation, and that the patient must receive the GP's undivided attention, and perceive that the doctor is interested. Respondents also agreed that the opening phase requires the judicious use of silences and body language to facilitate disclosure from the patient. Similarly, respondents agreed with statements regarding interruptions to the consultation. These included: that interruptions are an expected part of a normal day; that computers adversely affect the flow of the consultation more than most other interruptions; and that patients are usually not upset by the GP performing other tasks during the consultation. With regard to history taking, respondents agreed that the questions asked during history taking are compiled within a tick list that the GP has usually rehearsed several times previously. Similarly, respondents agreed that the patient has the opportunity to influence the direction of the inquiry through non-verbal cues such as posture and facial expression, and sensitivity to these cues can take the consultation in a different direction than previously envisaged. Respondents also agreed with statements regarding the examination during the consultation, in that the examination process

forges an emotional link between the patient and doctor, and it allows the GP to ponder the problem and serves to reassure the patient. Additionally, respondents agreed with statements in regard to limitations of the use of simulated consultations, in that the consultation may be influenced by an established doctor-patient relationship, and recording the consultation may adversely affect the flow of the consultation.

Respondents, however, disagreed with a number of statements describing ritualised behaviour. That is, that during the opening sequence patients must be allowed to 'list' their complaints, and history taking often flows through a series of predetermined questions relating to a specific complaint. With regard to the examination, participants disagreed that it forms part of the 'ritual' of the consultation, and that often a GP has made a diagnosis or decided on a course of action prior to examination. Similarly, with regard to the management of patients, participants disagreed with the finding that the ordering of tests can serve to 'buy' time to consider the problem, that tests are not necessarily helpful in making the diagnosis or even in the management of the patient, and that tests can serve as a mark of 'quality' in the practice and to reassure the specialist that the patient has received a 'full workup'. Respondents were also reluctant to describe themselves as efficient at switching between tasks when consultations are interrupted.

Participants were also asked to plot a typical consultation from start to finish, based on their own experience. The responses are shown in Appendix G (N = 6: 5 GP responses and 1 actor-patient response). As these graphs show many participants describe a consultation as progressing through successive phases from start to finish, indicated by the near straight lines. Revisiting previously covered phases during the consultation was not portrayed by any of the participants.

4.4 Discussion

4.4.1 The doctor-patient relationship

In this study GPs agreed that the opening sequence is important to the outcome of the consultation. Beckman and Frankel (1984) stated that determining the patient's reasons for seeking care is of critical importance to a successful consultation. Similarly, Silverman et al. (1998) stated that the importance of taking steps to build the doctor-patient relationship from the beginning of the consultation cannot be overemphasized.

GPs agreed that the patient must receive the GP's undivided attention. The opening phase requires the use of silences and open body language to facilitate disclosure. Silverman et al. (1998) stated that the doctor's behaviour and demeanour are vital in enabling the patient to feel comfortable during the initial stages of the consultation. GPs should give the patient time, space and encouragement to have the floor at the beginning of the consultation (Silverman et al., 1998). GPs concurred that the patient must perceive that the doctor is interested in the patient. Roter and Hall (2003) stated that patients need to feel that their doctors take a personal interest in them as individuals, and that they are concerned about their welfare.

GPs recognised that history-taking involves a compiled tick list of questions that the GP has usually rehearsed several times previously. Tate (1983) stated that when patients begin to tell their story, GPs start off on a form of clinical checklist. Tate indicated that GPs have been trained that way, and that this list is characterized by a linked set of close questions that lead to a likely diagnosis. GPs also agreed that the sensitivity to non-verbal cues (e.g., posture, facial expressions) from the patient can take the consultation in a different direction than previously envisaged. Roter and Hall (2006) described how exchanges between patients and GPs carry cues about feelings, emotions and attitudes. Roter and Hall explained that people emit cues without choice, even when trying to conceal them, therefore awareness of non-verbal behaviour is very important in the medical consultation. Silverman et al. (2005) stated that the non-verbal cues are highly

significant, and that it is important for GPs to observe them carefully and verify these with patients.

GPs indicated that the consultation may be influenced by previous experience with the patient and the existing doctor-patient relationship. Kearley, Freeman and Heath (2001) conducted a study to determine patients' perceptions of having a personal doctor. Sixty-four percent of patients involved in the study rated having a personal GP as 'very important' or 'extremely important' (Kearley et al., 2001). The authors noted, however, that patients' valued a personal relationship much less highly when the consultation was for a minor illness rather than illnesses such as incurable cancer. As the scenarios portrayed in the current study involved potential cancer cases a developed relationship between patient and GP may have been more important. Further research is required to determine the perceptions of GPs regarding the value of a personal relationship with patients.

4.4.2 Ritualized behaviour

A number of GPs in the current study disagreed with statements describing ritualised behaviour, specifically that the examination is often part of the ritual in the consultation. Tate (1983), however, stated that the examination phase of the consultation is integral to the information-gathering process and its use, and the manner in which it is conducted is likely to become stylized. Tate described how the physical examination can be developed into an impressive and powerful ritual due to the control that the GP has over the patient at this time. Tate detailed how in these circumstances GPs can often perform the examination more elaborately in order to develop their authority over patients. It may be that GPs in the current study are unaware of embellishments that they have made to the examination process, or that they have in fact not made any, or alternatively they are reluctant to admit to them.

GPs in the current study also disagreed that the GP has often decided on a course of action even before the examination, and that tests are not necessarily helpful in making the diagnosis. However, Tate (1983) explained that the checklist of clinical questions

used in the history-taking phase of the consultation is based on the fact that a working diagnosis has been made very early on in the consultation. Zaat et al. (1995) conducted a study in The Netherlands to determine whether a GP diagnosis altered or became certain with the use of out-of-office laboratory tests. GP diagnoses in consultations were coded over a 12-month period, and GPs were asked to rate the certainty of their diagnosis. Zaat et al. found that diagnoses became certain in more than half the cases during the second consultation based on the results of laboratory tests, and that the diagnosis did not change in 46% of cases. This study shows that tests are helpful in 'confirming' a diagnosis for GPs more so than making a diagnosis. GPs in the current study may be unaware of the way in which they are using tests to confirm a suspected diagnosis. Specific tests have been shown to be mainly a tool for confirmation of a diagnosis in general practice rather than a test for detection of pathology (Dinant, Knottnerus, & van Wersch, 1991; Gronlie & Hjortdahl, 1991). Kassirer (1989) stated that the main reason for the use of many unnecessary tests is the desire for certainty.

4.4.3 Interruptions to the consultation

GPs agreed that interruptions are an expected occurrence and part of a normal day. Shvartzman and Antonovsky (1992) found that interruptions to the general practice consultation were common. GPs also agreed that computers can be viewed as a tool and malfunction of these is more likely to adversely affect the flow of the consultation than most other interruptions. Pearce et al. (2008a) conducted a study to describe the relationship between the patient, GP and computer during the opening phase of the consultation. Pearce et al. found that the computer can influence the consultation by becoming an active participant to which others in the consultation must respond, and that it is a mistake to treat the computer as a tool during the consultation. Als (1997) found that when GPs observed video of themselves using the computer, they were surprised at how they used it to redirect the conversation during the consultation. Rhoades, McFarland, Finch and Johnson (2001) stated that computer use during general practice consultations interrupted communication between GP and patient. Pearce et al. proposes a new consultation in which the computer joins the interaction between GP and patient, and influences behaviour.

GPs in the current study were reluctant to describe GPs as being efficient at switching between tasks when a consultation is interrupted. However, Trafton et al. (2003) found that as participants gained practice in being interrupted and resuming a task, they became better at it. GPs may feel as though they are not efficient at resuming an interrupted task, however, because interruptions are frequent occurrences (Shvartzman & Antonovsky, 1992), they may perform better than they realise. GPs believed that patients taking calls on a mobile phone significantly interrupts the consultation, and that patients are usually not upset by the GP performing other tasks during the consultation (e.g. taking a telephone call about another issue). Dearden et al. (1996) conducted a study to determine the patients' view of interruptions to the general practice consultation. Dearden et al. found that 40% of patients whose consultation was interrupted felt that it would have been better if it had not been, and over 50% of patients felt the reason for the interruption was not important. GPs may be misguided in their belief that patients are not upset by a GP performing other tasks during the consultation. GPs agreed that the patients' mobile phone ringing is a significant interruption to the consultation. It may be that patients find interruptions that are the GPs' responsibility significantly disruptive as well.

GPs in this study believed that recording the consultation may adversely affect the flow of the consultation. In contrast, Pringle and Stewart-Evans (1990) conducted a small study to determine differences in GP behaviour between awareness and unawareness of being observed through the use of video. The authors found by measuring general parameters of the consultation, including length, nature of problems discussed, and physical and verbal activities that took place, that GP awareness of being video recorded has no effect on doctor's consultation behaviour.

4.4.4 Graphs of the consultation

In this study, participant's responses to the task of graphing the consultation described the consultation as progressing through successive phases from start to finish. This was indicated by near straight lines from Phase I (initiation) through to Phase VI (termination). Byrne and Long (1976) stated in their original description of the model of the consultation used in this study that for the most part, the consultation does not follow logical order from initiation to termination. Responses to this task showed that revisiting previously covered phases during the consultation was not portrayed. GPs were unable to accurately describe the flow of the consultation visually when requested.

In summary, the results of the current study showed that GPs described the opening sequence as being important to the outcome of the consultation, and that an established relationship with the patient may influence the consultation. This study also showed that GPs did not believe that their behaviour during the examination phase of the consultation is enacted or ritualized, or that tests are performed despite their triviality in making a diagnosis, contrary to previous reports (Dinant et al., 1991; Kassirey, 1989; Tate, 1983; Zaat et al., 1995). GPs depicted the flow of the consultation visually as progressing in a straight line from commencement to termination, indicating a logical sequence. Additionally, revisiting previously covered phases during the consultation was not portrayed. Previous reports indicate that the consultation does not flow in a logical order (Byrne & Long, 1976).

The results of this study indicated that GPs reported that interruptions to the consultation are a common occurrence, which supports previous findings (Shvartzman & Antonovsky, 1992). However, GPs did not describe themselves as being efficient at switching between tasks during the consultation, although practice with interruptions has been described as improving a person's ability to cope (Trafton et al., 2003). GPs believed that patients were not upset by GPs performing other tasks during the consultation, which contrasts with previous findings (Dearden et al., 1996). This study showed that GPs believed that recording the consultation may adversely affect the flow of the consultation, which also contrasts with previous findings that GP awareness of

being video recorded during the consultation had no effect on consultation behaviour (Pringle & Stewart-Evans, 1990).

This study provided insight from both GPs and patients regarding their relationship and behaviour during the consultation, the effects of an interruption to the consultation, and that of being video recorded. These findings are important in that they highlight aspects of the consultation where GPs behaved differently to how they thought they behaved, and contrary to previous reports in the literature. The findings of this study highlight the importance of inquisition, understanding, and reflection on specific behaviour in general practice consultations. GPs could improve consultations by questioning their own actions and reasoning for behaviours during the consultation to ensure they are carrying out their work efficiently and effectively. Additionally, GPs should reflect on, and develop an awareness of how they think they behave, compared to how they actually behave. Observing video-recordings of consultations, as used in this study, is a beneficial method for prompting this behaviour, and should be encouraged for practice improvement among GPs.

CHAPTER 5

General Discussion

This discussion integrates and compares the findings of each of the studies. The key findings of each study with regard to GP consultation behaviour, the doctor-patient relationship and interruptions to the consultation are discussed in this chapter, and the implications for both GPs and researchers are outlined. Finally, strengths and limitations of this research are detailed.

This study is the first to show GPs' inability to accurately describe their behaviour during a consultation, particularly with regard to an interruption to the consultation.

The key findings of the research were:

1. GPs were unable to describe the flow of the consultation compared to observation of their behaviour.
2. GPs were not acutely aware of their behaviour during the consultation.
3. GPs were unable to sense their ability to manage interruptions to the consultation.
4. GPs did not spend any more time developing their relationship with patients during interrupted consultations, despite the detrimental impact they believed the interruption might have on the relationship.

5.1. Consultation behaviour

5.1.1. GP behaviour. In Study 1, observation of general practice consultations and GP behaviour, indicated variability in the flow, or sequence of the consultation. GPs differed in the way that they consulted the same patient, and spent varying amounts of time on each phase, often jumping back and forth between phases. Additionally, individual GPs were shown to behave similarly when consulting different patients, spending similar amounts of time on each phase, and sequencing the consultation in the same manner. This study provided further evidence for a GP consultation style (Byrne &

Long, 1976; Pendleton, 1984, 2003; Tate, 1983) and inflexibility in the GPs' consulting behaviour. In Study 2, GP and patient perspectives of the general practice consultation provided evidence for GPs adhering to an underlying framework during the consultation, described as the traditional medical model (Byrne & Long, 1976). This study showed that GPs report not following this framework in a logical fashion, indicating that it depends on patient specific characteristics. GPs referred to flexibility in their consulting behaviour. In Study 3, visual depictions of the flow of the consultation indicated that GPs described the consultation flowing in a logical sequence from commencement to termination, contrary to previous reports (Byrne & Long, 1976). No transition to un-successive phases, in other words, flexibility, was portrayed. These findings indicate differences between observations of GP behaviour during the consultation and GP perceptions or beliefs of behaviour during the consultation. GPs displayed patterns of behaviour that did not alter when consulting a variety of patients, however, they described their consulting behaviour as being flexible, and dependent on patient specific characteristics. Additionally, observation of GP consulting behaviour showed variability in the way in which the consultation progressed, shifting back and forth between phases of the consultation; however, GPs visually portrayed the consultation progressing in a straight line from start to finish. This shows that GPs were not astute at describing the flow of the consultation, when compared to observations of their behaviour.

5.1.2 The doctor-patient relationship. In study 1 there was evidence that GPs spent little time establishing a relationship with patients, often skipping this phase altogether. In study 2, GPs and patients described their relationship as developing over the course of many consultations, much like a continuing conversation. GPs reported that although they may not remember the previous conversation with patients, they gave the impression that they did. Finally, study 3 provided evidence of the importance of the opening sequence and an established relationship on the outcome of the consultation. These findings show that despite the significance that is placed on the doctor-patient relationship for the outcome of the consultation (Little et al., 2001a; Shvartzman & Antonovsky, 1992), observation of GPs behaviour and reports from GPs indicate that GPs spend little time during the consultation addressing it. These results highlight the

differences between GP beliefs and observed GP behaviour. In other words, as per the findings of GP behaviour reported above, the way in which GPs related to patients, and their perceptions of the way in which they related to patients were different. GPs placed importance on an established relationship with the patient; however, they spent little time during the consultation on this relationship, and described that in some instances they pretend to remember patients or conversations, even though they do not. This shows that GPs were not acutely aware of how they were behaving during the consultation, and that the relationship they have with patients may not be as strong or successful as it could be.

5.2 Interruptions to the consultation

5.2.1 GP behaviour. The findings of study 2 and study 3 supported evidence that interruptions to the consultation are a common occurrence (Shvartzman & Antonovsky, 1992). The findings of study 1 provided evidence of variability in GPs' ability to cope with interruptions. This variability observed in study 1 could potentially be explained by GPs' exposure to interruptions; that is the more practiced a GP is at being interrupted; the better they are at coping with it (Trafton et al., 2003). Although GP exposure to interruptions was not measured in this study, further research in this area is necessary and could indicate that as GPs deal with interruptions on a regular basis, they become more adept at dealing with them. Study 3 indicated that GPs do not believe they are efficient at switching between tasks during the consultation, as is required during an interrupted consultation. Study 2 provided evidence that patients believed that GPs managed interruptions well during the consultation. These findings highlight that GPs perceptions of their ability to cope with interruptions to the consultation may differ from observed behaviour by others, including the patient during the consultation. As with the previous findings of this research reported earlier, GPs' behaviour in response to an interruption differed to their perception of how they responded to the interruption. This shows that GPs were not sensitive to their ability to manage interruptions to the consultation.

5.2.2 The doctor-patient relationship. In study 1 evidence was found that indicated GPs did not spend any more time establishing a relationship with the patient during interrupted consultations compared to non-interrupted consultations. The findings of study 2 supported previous reports that interruptions to the consultation may impact on rapport with the patient (Shvartzman & Antonovsky, 1992), although GPs indicated that this was only in instances where the interruption was their responsibility. The results of study 3 showed that GPs believed that patients were not upset by GPs performing other tasks during the consultation, such as those that occur during interruptions, which contrasts with previous reports (Dearden et al. 1996). These findings taken together highlight the differences between GP beliefs regarding interruptions to the consultation, and their observed behaviour. Despite the detrimental impact that interruptions may have on the relationship between the doctor and patient, GPs did not spend any more time in the consultation addressing it.

5.3 Simulated consultations

In study 2 GPs reported that they believed that they behaved differently with the added pressure of being video recorded during the consultation. The findings of study 3 found that GPs believed that recording the consultation may adversely affect the flow of the consultation; due to the pressure they may feel when being observed. These findings can be explained by the Hawthorne effect (Roethlisberger & Dickson, 1972) in that GPs may have experienced behavioural change due to being observed. The Hawthorne effect describes changes in participant behaviour that can be attributed to their knowledge of being observed. However, these findings contrast previous reports that GPs' behaviour did not alter when they were aware or unaware of being video recorded (Pringle & Stewart-Evans, 1990). The generalizability of Pringle and Stewart-Evans study is questionable, however, due to the small sample size involved.

Similarly, in study 2 evidence was found of GPs and patients experiencing differences in simulated consultations compared to real life consultations. Participants reported the lack of physical examination, fewer questions from patients, excessive questions from GPs, and a decreased emotional component of the consultation impacted on the reality

of the consultation. These findings support previous reports that a disadvantage of the use of simulated patients is the limitations in terms of conditions that can be simulated on physical examination (Beullens et al., 1997). Additionally, the amount of training that the actor-patients received may have influenced their behaviour during the consultation. Further training prior to the simulated consultation workshops may have improved the way the actor-patients presented during the consultations.

5.4 GP awareness of their behaviours

The key findings outlined above indicate that GPs' perceptions or belief about what is occurring during the consultation and observation of their behaviour differs. GPs in this study were not aware of their own behaviour during the consultation. This lack of awareness may potentially be detrimental to the consultation because GPs are not in tune with their behaviour and the way that they relate to patients. One way in which these results may be interpreted is that GPs may not be responsive to patient needs, and may be missing information and cues from patients regarding their ideas, thoughts, and concerns regarding the illness, and their reason for attendance. This means that GPs are not consulting in a patient-centric way as they are using the same style of behaviour for each patient. Stewart et al. (1979) highlighted that GPs use of a patient-centred consultation led to increased knowledge of patients' complaints, and better relationships with patients. These implications, however, require further research to determine if this is the case. The GPs' inability to determine the patients' reason for attendance has been reported to be detrimental to the outcome of the consultation (Freeman et al., 2002). Additionally, the GPs' knowledge of the patients' problem has been reported as being indicative of the doctor-patient relationship (Stewart et al., 1979). Therefore, the relationship between the doctor and patient may be strengthened if the GP was aware of how little time they were spending developing this relationship, and changed their behaviour accordingly.

Improvements to GP awareness of their behaviour could also lead to enhanced communication between the GP and patient (Novack et al., 1997). This improved communication would strengthen their relationship; and could reduce clinical errors

(Borrell-Carrio & Epstein, 2004), that may result from not addressing patient concerns appropriately. Similarly, better communication would promote shared-decision making during the consultation thereby improving the quality of health care (Ford, Schofield, & Hope, 2006). Novack et al. (1997) stated that GP self-awareness of their own personal characteristics, such as past experiences, values and attitudes can enhance communication, and GPs who become more aware of the influence of these factors can better understand and correct their behaviour. GPs who are aware of the way they relate to patients who may have different backgrounds, and outlooks on life will be better at ensuring these differences are put aside during the consultation, therefore improving their ability to relate to patients than those who are not aware. Borrell-Carrio and Epstein (2004) stated that a lack of vigilance in seeing each patient from a fresh perspective could lead to error and poor care. The authors suggest that routine or habitual behaviour, and a lack of self-awareness during medical encounters can lead to ineffective communication and inaccuracies in the examination of patients. These reports in the literature highlight that the findings of this study, that is GPs' inability to describe their own behaviour, and a lack of self-awareness during the consultation, can have implications for communication with patients, the way that GPs relate to patients, and to the incidence of clinical errors.

GP self-awareness can be improved by reflecting on their behaviour, and developing an ability to be mindful (Epstein, 1999). Reflection is the replaying of events in order to describe and further understand what was happening (Hewson, 1991). Mindfulness is the ability to be in the present moment (Connelly, 1999). These principles are intimately linked in that mindfulness has been described as an extension of self-reflection (Hewson, 1991). The application of these principles can enhance GPs' awareness of their behaviour by facilitating observation, and inquisition of their behaviour during the consultation.

5.4.1 Reflection and reflexivity. Reflection on behaviour has for many years been considered important for GP education and professional development, and was evident in Balint's (1957) early work on the doctor-patient interaction. This is because

learning from experiences, such as those of a GP, requires reflection (Robertson, 2005). Balint (1957) suggested that GPs should meet regularly with their peers to discuss challenging patients in order to understand their attitudes, motivations and interventions with patients. These subsequently named "Balint Groups" have since been promoted as a useful method for developing GP awareness of behaviour (Henderson, Berlin, Freeman, & Fuller, 2002; Novack et al., 1997; Robertson, 1995). More recent teachings of reflection in medicine have involved a variety of techniques, including but not limited to: counselling (Novack, Epstein, & Paulsen, 1999) support groups (Novack et al., 1997), reflective writing (DasGupta, & Charon, 2004) and video feedback (Pendleton et al., 1984; Heath et al., 2007). Novack et al. (1997) reported that the majority of methods that GPs can utilise to improve self-awareness involve reflection on past and present experiences.

McWhinney (2000) describes how reflection on behaviour can be painful for GPs because it forces them to face truths about themselves, and their behaviours. Previous studies into aspects of the general practice consultation involving video playback have reported that when GPs observed their behaviour on video, they were surprised at how they behaved during the consultation (Als, 1997; Coleman & Murphy, 1999). In the current study, only one representative GP viewed footage of their consultation behaviour during the JIF and were not asked to comment on how they looked or behaved during the consultation compared to how they thought they did, as this was not the specific focus of the research. However, as the findings of this research indicated that GPs are not aware of how they behaved, the GPs in this study may also have expressed surprise when they viewed footage of themselves during the consultation. Als (1997) found that GPs were unaware of the way that they used the computer during the consultation. Similarly, the findings of this research showed that GPs were unaware of the way in which they behaved with regard to the flow of the consultation and how they relate to patients. Als (1997), Carroll et al. (2008) and Coleman and Murphy (1999) all noted that participants expressed intent to change behaviour when they were able to observe their behaviour on video. If given the opportunity, GPs in the current study may also have

expressed intent to change behaviour upon reviewing the video footage, particularly with regard to the way they relate to patients.

Iedema et al. (2009b) in their investigation into clinical handover in an intensive care unit stated that clinicians, upon watching their behaviour on video, realise how second nature their behaviours have become, and in this regard are surprised by their behaviour. Similarly, Iedema (2011) stated how the use of video playback enables practitioners to question their habits, and prompts changes in behaviour. GPs in the current study may have been unaware of their behaviour, and unable to describe it accurately compared to how it was observed on video, due to the fact that their behaviour has become second nature. As noted above, if these GPs were given the opportunity to view themselves on video they may have observed how they no longer observed the way that they behaved during the consultation, as it had become so habitual, and may have expressed intent to change behaviour.

Iedema et al. (2009) also stated that video playback is useful for prompting practitioners to perform reflection-on-action (Schon, 1983). This form of reflection, described by Schon (1983), occurs after the activity, and involves recreating the experience (Robertson, 2005), and has often been referred to in professional practice as 'post-mortem' discussions (Hewson, 1991). However, Iedema et al. (2009) described how their method of video reflexivity goes one step further in that it enables practitioners to perform reflection-in-action (Schon, 1983). Reflection-in-action, also described by Schon (1983), involves practitioners thinking about what they are doing, while they are doing it, and making on-the-spot adjustments to their behaviour (Robertson, 2005). Iedema et al. (2009) reported that it is in this manner, that the video footage facilitates mindfulness. This study highlights that GPs can reflect on their behaviour by observing themselves on video, but they can also make improvements to behaviour during the consultation, which is prompted by this reflection. In other words, GPs can become more reflexive during consultations, in that they are more responsive to patient needs, by reflecting on their behaviour captured on video. This involves GPs shifting their attention to the consultation at hand, and becoming more mindful.

5.4.2. Mindfulness. Developing an ability to be mindful has the potential to improve GP self-awareness because it draws focus to the present (Marlatt & Kristeller, 1999). Langer (1989) first described mindfulness in psychology as a flexible cognitive state, characterised by an awareness of current experience and functioning (Brown & Ryan, 2003). This was contrasted with 'mindlessness' in which there is an overreliance on categories and distinctions established during past experiences (Langer, 1992). Langer and Brown (1992) explained that these defined distinctions suspend ones ability to think. In mindlessness experiences are seen only from one perspective without awareness of alternatives (Langer & Brown, 1992). In this way, work-related tasks, such as the GP consultation, are approached in the same way, without consideration of alternative techniques (Langer & Brown, 1992). Additionally, Langer and Brown stated that different approaches are rarely pursued after a satisfactory method has been established. This means that GPs can become mindless during the consultation because they have developed a style that they are comfortable with. The problem with this, however, is that small issues are not addressed before they become bigger, and more significant (Langer & Brown, 1992). It is only then, when a problem has arisen or an error has been made, that the way in which the task is conducted, is addressed. A GPs consultation style may have become so rigid that patient complaints may not be adequately addressed, leading to prolonged, or exacerbated symptoms, or even error. By being mindful, however, the GP may actively notice new things (Carson & Langer, 2006). Additionally, Carson and Langer stated that when individuals behave according to expectations, in other words, the way that they think they should behave in certain situations, they are entering a mindless state. In these situations individuals are separating themselves from the present, reducing their ability to accurately perceive what is taking place. This means that GPs, when behaving or responding to patients in a way that they think is expected of them, are actually reducing their ability to be in the present moment.

Mindfulness originates from Buddhist traditions (Hanh, 1976; Thera, 1972). Kabat-Zinn (1990) described mindfulness, in this regard, as "paying attention in a particular way: on

purpose, in the present moment, and non-judgementally" (Kabat-Zinn, 1994, p.4). This description of mindfulness focuses on seeing things as they are, and being accepting of this, without trying to change things (Melbourne Academic Mindfulness Interest Group, 2006). With this open and flexible state of mind, individuals are conscious of the content and context of information (Carson & Langer, 2006; Langer, 1992). Langer and Moldoveanu (2000) stated that being mindful tends towards a more open state of mind, an awareness of multiple perspectives, especially with regard to problem solving, and a heightened sense of the environment in which our lives take place.

Although mindfulness meditation derived from Buddhism, Kabat-Zinn (1990) explained how this could be transferred for every-day use in Western society, and subsequently developed a therapeutic technique: mindfulness-based stress reduction (MBSR), originally developed to manage chronic pain. Following this, Segal, Williams, & Teasdale, 2002 developed another mindfulness-based therapy based on Kabat-Zinn's MBSR. This technique, mindfulness-based cognitive therapy, was originally developed to address relapses of chronic, recurrent depression for people in non-depressed states (Segal, Williams, & Teasdale, 2002). Both of these techniques have proven popular in the literature (Bishop et al., 2004), and have shown to be valid therapies for the management of recurrent depression, stress, anxiety, chronic pain, and eating and affective disorders (Baer, Fischer, & Huss, 2006; Chiesa & Serretti, 2011; Hofman et al., 2010; Kabat-Zinn, Lipworth, & Burney, 1985).

Mindfulness, in the sense of having a more open mindset, is thought to be an important attribute for clinicians (Epstein & Hundert, 2002) because they need to be able to observe themselves and the patient during the consultation (Epstein, 1999). Mindfulness has been described as having four characteristic habits, these being: i) attentive observation, ii) critical curiosity, iii) beginner's mind, and iv) presence (Epstein, 2003). Attentive observation refers to the GPs' ability to observe themselves, the patient, and the problem; critical curiosity involves the GP acknowledging their inevitable areas of incompetence; beginner's mind involves viewing the patient, and consultation from a fresh perspective; and presence involves providing undivided attention (Epstein, 2003).

Epstein (1999) stated that mindfulness is the opposite of multitasking. It is in this manner, that interruptions could be detrimental to the consultation because they take the GPs' attention away from the task or patient at hand, to deal with another issue, thereby reducing their presence, and attentiveness. In the current study, interruptions were found to be a common occurrence, and potentially detrimental to the doctor-patient relationship. Epstein (2003) reported that multitasking could result in poor performances in one or both of the simultaneous tasks. Brown and Ryan (2003) stated that multitasking reduces the ability to fully engage in the present. This means that when an interruption occurs during the consultation, both the consultation at hand, including the relationship between the doctor and patient, and the interruptive task that the GP could be required to perform, may suffer.

Despite numerous references to the importance of clinicians developing mindfulness in the literature (Epstein, 1999; 2003; 2003a; Scherger, 2003; Stange, Piegorsh, & Miller, 2003; Williamson, 2003), there have been very few studies that investigate the outcome of a clinician's acquired ability to be mindful. Grepmair et al. (2007) conducted a randomized controlled trial to investigate the impact of mindfulness training on psychotherapy interns. The therapeutic course and treatment results for 124 patients treated by 18 interns randomly assigned to the training or control group were compared. The training involved partaking in Zen meditation prior to therapy sessions, which promoted mindfulness. The authors found that patients of interns in the training group faired better than those who were treated by interns in the control group. Shapiro, Schwartz, and Bonner (1998) investigated the effects of mindfulness training on medical and premedical students. This training also involved meditation that promoted mindfulness. Shapiro et al. found that students who completed the seven-week training program showed reduced psychological distress and anxiety levels, and increased levels of empathy compared to students who did not partake in the training. Although these studies did not measure mindfulness directly, they showed that promoting mindfulness in health professionals could lead to better outcomes for both patients and practitioners.

5.5 Implications for practice

The findings of the current study indicate that GPs are unable to accurately describe their behaviour during the consultation, especially with regard to an interruption. The concepts of reflection, reflexivity and mindfulness should be applied to general practice training and ongoing professional development in order to improve GP awareness of, and consultation behaviour. Feldman (2001) discussed the importance of the incorporation of mindful practice into medical curriculum in order to promote personal growth. GPs and patients could benefit from GPs learning methods to develop awareness of their behaviour and actions, and paying more attention to specific information, and nonverbal cues during the present moment of the consultation.

The first recommendation is that GPs may benefit from being more aware of how they are behaving during the consultation. This involves practitioners observing their own behaviour and that of the patient, moment to moment while the consultation is progress, that is, reflection-in-action (Schon, 1983). In other words, GPs are reflecting on their actions as they happen, questioning whether they are correct, and whether a more appropriate course could be taken. This also requires reflection-on-action (Schon, 1983) whereby reflection of behaviour takes place once the consultation has been completed. This means after the consultation has terminated, GPs could consider each consultation and the way in which they behaved. They may reflect on how they interacted with the patient, what actions they took, and whether they were the most appropriate. From here GPs could determine whether tasks during the consultation could have been performed differently. In the current study, a heightened awareness of their own behaviour may potentially have helped GPs describe how they were behaving with regard to the flow of the consultation; interruptions to the consultation, being video recorded, and the amount of time spent establishing a relationship with the patient. This, however, requires further research to determine if mindfulness training and reflection on action improves consultations.

The second recommendation is that it would be useful for practitioners to be aware of the behaviour of the patient during the consultation on a moment-by-moment basis, and

respond accordingly. This requires mindfulness (Epstein, 1999) and reflexivity (Iedema et al., 2009). This involves GPs sensing verbal and non-verbal cues from the patient, recognising the meaning of these cues, and choosing an appropriate response. In this manner, it may be useful for the GP to behave according to the patient that they are consulting, rather than in their particular style. The flow of the consultation would be determined by interaction with the patient rather than because certain behaviours are expected to follow on from others. In the current study, closer attention to patient's behaviour during the consultation may have helped GPs to detect the patient's impression of the impact of an interruption to the consultation, and the management that each patient received from the GPs may have been less varied. This conclusion, however, requires further research to determine if this would lead to improved consultations.

The third recommendation is that practitioners could consider controlling their own behaviour during the consultation on a moment-by-moment basis, by acting reflexively (Iedema et al., 2009). This means that GPs have become more aware of their behaviour due to reflecting on it, both while in-action and after the event. In order to act reflexively, however, GPs take this awareness one step further and change their behaviour in the present moment. This involves GPs taking lessons learned from previous consultations, and improving future ones by making changing to their actions while the consultation is still in progress. In the current study, greater regulation of GPs own behaviour may have influenced the time spent establishing a relationship with the patient, given the importance that is placed on this for the outcome of the consultation (Little et al., 2001a; Shvartzman & Antonovsky, 1992).

The final recommendation is that practitioners use their behaviour to assist the flow of the consultation. This involves combining the three actions described above to improve interaction with the patient and the outcome of the consultation. In the current study, practitioners could have changed their behaviour to spend more time relating to the patient potentially improving the outcome of the consultation. This would have involved GPs reflecting on how much time they spent relating to the patient both during the

consultation, and after it had terminated; responding to patients attempts to relate to the GP; and finally changing their behaviour during the consultation to be more engaging with the patient in order to strengthen their relationship. In this manner, patients may have been more forthcoming with information, and the consultation may have flowed more easily. Again, this requires research to determine if these changes to behaviour do indeed lead to better consultations.

If it was found that mindfulness training improved GP consultation behaviour then this could be incorporated into medical education and ongoing practitioner training. Moreover, video techniques could be used to improve self-awareness during the consultation. Furthermore, these principles may be combined with further training on communicating, and relating to patients, in order to outline the differences that these techniques could make in establishing a successful relationship with patients. Livesey (1986) stated that practitioners develop their consulting methods by trial and error and that it only becomes fixed when they are satisfied or cease to think about what they do (Livesey, 1986, p. 12). The application of these principles would therefore promote ongoing thought, insight and awareness of GPs' own behaviour, helping to reduce stylized encounters with patients. Additionally, further training could be incorporated into medical education on reducing and managing interruptions. This may include techniques on how to acknowledge the current patient when an interruption occurs, and how best to continue with the consultation once the interruption has resolved. In this way, GPs may learn methods to deter interruptions to the consultation, and improve their ability to manage them.

5.6 Recommendations for future research

The principles of self-awareness, reflection and mindfulness with regard to GP consulting behaviour could be applied to research into the general practice consultation. Although this study highlighted a lack of awareness of GPs' own behaviour, future research is still required to investigate how best to improve this awareness, and whether improvements in self-awareness lead to better outcomes for patients during the consultation. As a result, it is recommended that future research focus on further use of

the consultation map for demonstrating to GPs how they behave; incorporation of video reflexivity sessions to promote awareness of behaviour and proposals for change; and the use of mindfulness training as an intervention to improve GP self-awareness. Further research should also focus on how GPs manage interruptions to the consultation, and incorporate perspectives from both GPs and patients on GP behaviour during the consultation through interviews and measures such as GP self-awareness, patient satisfaction and patient enablement.

Specifically, future research could replicate the methods used in the current study in order to determine the impact of GP self-awareness on the consultation. GPs could be asked to describe their consultation behaviour with regard to the flow of the consultation, and the time spent on phases of the consultation, and assessed using a self-awareness instrument. Following this observation and review of participant's consultation behaviour using the consultation mapping technique should occur. On completion of the consultations, interviews with GPs could take place in order for GPs to describe their behaviour with regard to the specifics of the consultations being observed. Finally, footage from the consultations could then be played back to each GP, and the graphs of their consultations provided for their review. These measures describe what actually happened during the consultation, as opposed to what the GP described as occurring. GPs' reflections on the footage and the visual depictions of the consultation should then be captured. This could assist GPs to identify aspects of the consultation, and the doctor-patient relationship that they may wish to address in future practice, increasing their self-awareness and enabling them to act reflexively. Patient perspectives and satisfaction regarding the GPs' behaviour could also be incorporated into this research to determine whether there were differences in consultations before and after the GP had viewed the consultation footage.

It would be useful for future research to focus on the use of real-life cases or other scenarios for actors to portray, and include a variety of cases during each session of consultations. It may be that GPs respond differently to patients with different diagnoses, and therefore behave differently during the consultation. Further research

could also focus on the length of time in which the patient has known and visited the GP. Consultations with new patients and longstanding or frequently attending patients could be compared in order to explore GP behaviour during longitudinal patient encounters (Bokken et al., 2009). It may be that GPs who consult patients that they know well, due to the patient attending the clinic for some time, behave differently than when consulting a new or relatively new patient. Additionally, due to the impact of GPs consulting patients differently when they are not in their own environment, future research should utilise GPs' own practices. Actor-patients should attend the GPs' practice as though they are like any other patient. These actors could also be incognito in that the GP is not aware that they are an actor. This would ensure GPs are not behaving differently from their usual consultations, as they will not be aware they are being observed. This would require the physical examination aspect of the consultation being as realistic as possible with thorough training and preparation with the actor. A pilot phase should be incorporated to further ensure GP behaviour is not affected by being observed. This would involve excluding the first few consultations from the analysis.

Video reflexivity sessions have proven invaluable in previous studies as they promote reflection and redesign of task performance in the medical field (Iedema et al., 2006; Iedema et al., 2007; Iedema, Merrick, Kerridge et al., 2009; Iedema, Merrick, Rajbhandari et al., 2009). As a result, video reflexivity sessions could be incorporated into future research with GPs in order to promote self-awareness, and mindfulness. Video recordings of GP consulting real patients could be collected. Segments of these videos could be played back to individual GPs for observation and discussion with the researcher. This stimulated playback should be flexible in nature in that the GP is not prompted to comment on specific behaviours but should choose particular aspects and behaviours for discussion. Video reflexivity would also be a useful method to further investigate interruptions to the consultation; therefore consultations involving these could be used during the session, if possible. GPs comments on the video could then be collected, to identify any moments of enlightenment, in other words behaviours that they were not aware of. In this way, GP learning's about their behaviour and their proposals for change could be discussed in detail and subsequently reviewed. Patient measures

could also be incorporated into this research using before and after techniques to determine if the reflexivity session altered or improved GP behaviour.

With regard to mindfulness, future research may also investigate whether the number of years in practice determines a GPs' ability to be mindful. It is hypothesized that as the GP gains more experience and the years in medical training become distant, the GP would be less mindful as they have developed their consultation style. Finally, future research should determine whether there is a relationship between GPs' ability to be mindful in general, such as in their personal lives, and their ability to be mindful in their professional work. GPs who are more mindful outside of work may have the propensity to be more mindful of their behaviour and interactions with patients during consultations.

5.7 Strengths and limitations of the research

The key strength of this research was the controlled environment in which the consultations took place. The researcher was able to control as many aspects of the consultation as possible in order to observe GP behaviour. The researcher controlled the patients that consulted with the GPs, through development of the scenarios to be portrayed by actors, which were created according to the age and gender of each of the actors recruited to play patients. These scenarios were developed by an experienced GP, based on cases she had seen in practice, and were checked by another GP who was a researcher to ensure the accuracy and realistic nature of each case. The researcher controlled the setting in which the consultations took place, by conducting the workshops at one location, a general practice. The researcher also controlled the interruptions to the consultation, through the development of scenarios for interrupting the consultation. The researcher timed when these interruptions would take place, and how long they would be.

Another strength of this research was the use of two workshops in which the consultations under investigation were conducted and captured on video. This method ensured that the actors portraying patients could perform the case for each GP as

consistently as possible. By conducting the consultations one after the other there was not the distraction of gaps in time between performances that could have allowed for inconsistencies in the portrayal of scenarios to develop. Additionally, by conducting the consultations in this way, each actor-patient was more easily able to compare the management of their scenario by each of the GPs, and comment on their behaviour.

Once the video of GP consultations was obtained, and the researcher commenced the review of GP behaviour, one of the research supervisors also reviewed some of the videos (10%). This meant another researcher validated the approach by checking how it was conducted, and ensured consistency of the review process between GPs and consultations. Similarly, the research supervisors also validated the key themes that derived from the interviews with participants. This involved reviewing the chart of coded data produced during framework analysis, and concurring on key themes evident in this data. Finally, the small segments of videos shown during the JIF were checked and approved by one of the research supervisors. This involved reviewing the content and length of the video to ensure it accurately portrayed the key themes for discussion. These validation methods strengthened the findings of each of the three studies.

The mixed methods used in this research also strengthened the study, by allowing for a variety of perspectives to be obtained, including observation of behaviour, directly questioning participants about behaviour, and asking for feedback on video-recordings of behaviour. Johnson and Onwuegbuzie (2004) stated that mixed methods research allows the researcher to gain insight and understanding of a particular area, which may have been missed if only one method was used. Similarly, Morgan (1998) reported that the use of mixed methods in research complement each other because the strengths of one method enhance the other. Johnson and Onwuegbuzie (2004) also stated that mixed methods research enables corroboration of particular findings, increasing the robustness of the research. The methods used in the current study, and the different perspectives obtained, allowed for triangulation of the data. This meant that the findings for each method could be compared for similarities, thereby strengthening the results.

There are, however, several limitations of this research that must be noted when considering the implications. First, there was potential bias in recruitment of the GPs that participated in this study. A two-percent response rate is very low, which may have impacted on the results of the study, in that the GPs who responded to the advertisement to participate in the study may have been proactive and motivated GPs, implying that they may be unrepresentative of those who did not participate. Unfortunately, the method used to recruit GPs meant that the researcher was unable to identify why the majority of GPs in the networks used for recruitment, did not participate. The small sample size of six GPs per workshop, and the resultant number of participants interviewed, responses to surveys, and attendees at the JIF, may limit the generalizability of the findings of the research. The sample size of six GPs and actors is in line with a number of other studies involving simulated consultations (Gibson et al., 2006; Halkett et al., 2011; Jiwa, McKinley, O'Shea et al., 2009; Jiwa, McKinley, Spilsbury et al., 2009; Jiwa, Mitchell et al., 2010; Jiwa, O'Shea et al., 2010), while others recommend a minimum of eight consultations per GP (Ram, Grol, Rethans et al., 1999; Ram, van der Vleuten, Rethans et al., 1999). Despite the small number of participating GPs in the current study, each GP consulted six patients, which enabled the researcher to sufficiently observe their behaviour during the consultation. Future research could, however, involve interviews with real patients, and a greater number of participating GPs and actors. Additionally, the experience of the participating GPs in consulting standardized patients was not captured, which may also have impacted the results.

Second, with regard to the simulated consultations, actors were asked to portray patients that were not new to the GP, and that they had an existing relationship. However, as participating GPs had not seen the patients before, this was difficult to enact. This may have influenced GP and actor behaviour during the consultation. This method was chosen to minimize the length of the consultation, due to a thorough history taking already being conducted (i.e. all the consultations were standard length consultations (15 minutes in duration) rather than initial consultations which can take longer). It would have been more realistic to inform the GPs and actor-patients that another GP at the practice had conducted this initial consultation.

Third, the simulated consultations were conducted at a local GP practice. This meant that GPs were not in their own consulting environment, which may have impacted on the GPs behaviour. In particular, the ability to use the computer for recording patient information and writing prescriptions was a factor for a number of participating GPs. Although the patient files had been entered into the computer system at the practice, a number of the GPs were not familiar with the system and did not use it in their own practice. This meant that a number of the GPs were not comfortable to use the computer and reverted to writing things on paper. This was different to their normal behaviour in practice, as the use of information technology is continually increasing, and meant that in a normal consultation in their own practice GPs would have spent more time on the computer.

The fact that GPs were video recorded may have affected the way in which they behaved during the consultation. Responses to the JIF summary in Study 3 showed that GPs agreed that the video recording may have adversely affected the flow of the consultation. GPs may have asked more questions, or given more advice than they normally would during a consultation due to a perceived pressure to behave appropriately. The inclusion of a pilot phase where the first few video-recorded consultations were excluded from analysis could have improved this aspect of the study. Additionally, the exclusion of the examination during the simulated consultations, due to the patients being actors, may have altered both GP and patient behaviour during the consultations. Further information may have been provided or requested from patients and GPs respectively had an examination taken place. With further training of the actors and thorough preparation, an actual physical examination could have taken place.

The creation of the controlled environment for the consultations in this research through the use of scenarios, actors, video recordings, and a setting that was unfamiliar to most of the GPs, created a degree of artificiality for the participants involved. This may have influenced the way in which GPs behaved during the consultations, as they may have felt uncomfortable in having to perform and unable to consult as they would during a

real-life consultation. As for the actors, they were not professionals and received a minimal amount of training in order portray the scenarios. Further training may have improved the way that they portrayed the scenarios creating a more realistic case. The use of professional actors with experience in playing the role of patients suffering from a serious medical condition may also have improved the realistic nature of the consultations. More recent work conducted by researchers at Curtin University involving simulated consultations has explored the use of professional actors, and involved more intensive training for actors regarding the scenarios (Halkett et al., 2011; Jiwa, Mitchell et al., 2010; Jiwa, O'Shea et al., 2010). The selection of scenarios portrayed during the consultation may also have impacted on the consultations. During this research the scenarios involved cases in which a cancer diagnosis was likely. A number of GPs described how unlikely it is in real life to encounter patients with suspected cancer in succession. A variety of scenarios, other than cancer may have more realistically captured GP behaviour. However, as the data used in this research derived from other projects, one of which involved cancer, these scenarios were therefore portrayed (Jiwa, McKinley, O'Shea et al., 2009; Jiwa, McKinley, Spilsbury et al., 2009). Finally, with regard to the actors, no data were captured to determine role accuracy and reliability. This means that the researcher is unable to determine whether the actor-patients accurately portrayed the scenario required of them, and whether they portrayed it in the same way with each GP. These factors may have impacted on the way in which GPs consulted the actor-patients.

During Workshop 2 the video recordings for two of the participating GPs, a total of 12 consultations, could not be analysed due to technical failures. This may have impacted on the outcomes of this research due to the decrease in the number of consultations available for review. As a result of these technical difficulties, more recent work conducted by researchers at Curtin University using simulated consultations involved a professional media team to video consultations for review (Halkett et al., 2011; Jiwa, Mitchell et al., 2010; Jiwa, O'Shea et al., 2010).

With regard to the graphs of the consultations, the model used to describe the flow of the consultation was developed in the 1970s, at which time models of the consultation involved a doctor centred approach. As a result the graphs of the consultation, for the most part, reflect transitions in behaviour initiated by GPs. The use of a more recent, patient-centric model may have resulted in different graphs of the consultation. Additionally the graphs of the consultation derived from subjective data as a result of observation of behaviour during the consultation. This was then converted to objective data in order to measure and compare behaviours during the consultation, however, the purpose of the research was to explore GP consultation behaviour, rather than describe predictors of good and bad behaviour. This technique proved to be effective in exploring these issues, and could be replicated to conduct further research in this area. Additionally, a more quantitative technique, such as calculating the area under the curve, should also be explored for use in further research. The use of an anthropological approach such as conversation analysis or discourse analysis may also prove more effective in examining the way that GPs relate to patients. Byrne and Long's (1976) model is limited in the depth of detail that it can provide for analysis of the doctor-patient relationship. An anthropological approach to analysis of this relationship is therefore recommended for future research in order to draw firm conclusions about the way that doctors and patients interact.

Finally, although the use of video-reflexivity was enlightening for the GPs, further information could have been gathered during this session. In particular, GPs specific learnings about their own behaviour and proposals for change could have been captured and further discussed. This is recommended for future research that incorporates the use of video-reflexivity.

Despite the limitations described above, this study did provide insight into the way in which GPs consult, and perceptions of their behaviour during the consultation.

5.8 Conclusion

This research provided further evidence for a consulting style exhibited by GPs. This study is the first to show that GPs' descriptions of consultation behaviour differed from observation of their behaviour. Despite the importance GPs placed on the relationship with patients for the outcome of the consultation, GPs spent little time establishing a relationship with the patient, even when the consultation was interrupted.
This study highlighted that interruptions to the consultation are a common occurrence. Furthermore, GPs vary in their ability to cope with interruptions and cannot accurately describe the impact of the interruption on their consultation behaviour or the relationship with the patient. This is a finding that has not previously been reported in the literature.

GPs' inability to describe their behaviour, or the impact of interruptions to the consultation could potentially be improved through further training, and the application of the principles of reflection, reflexivity, and mindfulness to consultation behaviour. GPs could be more aware of and responsive to their own behaviour and that of patients during the consultation by applying these principles. This heightened self-awareness could lead to personal growth for the GP and improved outcomes from consultations. This study extends the knowledge of, and provides a foundation for further training and research into GP behaviour, interruptions, and the doctor-patient relationship during the consultation. Future research should measure GP self-awareness prior to simulated consultations in GPs' own practices. Graphs of the flow of the consultation and video reflexive sessions should also be utilised in order to provide GPs with observations of their behaviour.

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Appendix A

Participant Information Sheet and Consent Forms

CURTIN UNIVERSITY OF TECHNOLOGY
Division of Health Sciences/WA Centre for Cancer and Palliative Care

PARTICIPANT INFORMATION FORM

An evaluation of an electronic interactive referral pro forma (CRAB) for General Practitioners: A simulated patient study

Researcher: Hayley Arnet
Chief Investigator: Professor Moyez Jiwa

You are being invited to participate in a research study which aims to explore the impact of using an electronic referral pro forma on general practice consultations. At present we know software programs have a varying impact on practitioner performance. However the impact on the consultation, including diagnostic ability as measured by a valid and reliable test has not been documented.

If you have any questions about the study you may contact:

- Hayley Arnet (08) 9266 1764
- Professor Moyez Jiwa (08) 9266 1768

Purpose of study:
In this pilot study we will test a methodology for assessing the impact on consultations using 'simulated' consultations with six general practitioners at six stations

Study procedures:
We will videotape your consultations with six 'patients' on two occasions. The 'patients' are actors who will be presenting with specific signs and symptoms. You will have a little bit of information about each patient and you are asked to consult them as per your normal practice. You will hear a bell at 15 minutes and at that point you must end the consultation and the 'patient' will move on to the next station. No physical examination that requires the 'patient' to undress is required although you are able to carry out any other examination. If you feel that you need to conduct a more detailed physical examination to aid your diagnosis you are instructed to tell the 'patient' what further examination is required in which case they may be able to tell you the results of that examination if it had been performed. In the second set of consultations we will offer you access to interactive referral software following a brief training session on the use of this tool. After each set of consultations you will be invited to answer a brief questionnaire about your assessment of the patient. The recorded consultations will be analysed with reference recognized assessment tools for clinical consultations in general practice. The consultation will be analysed by suitably trained University researchers. Finally, following the consultations we will invite you to participate in a focus group and

or interview in order to gain feedback on the use of the software and its impact on your consultations.

Payment for participation

We would like to offer you a fee of $150 for your participation on each occasion in this study.

Risks/Discomforts/Outcomes of research

It is not envisaged that you will benefit directly from participation in this study. However the study should contribute to a better understanding of how to evaluate the impact of introducing new clinical software with respect to GP consultations. There are no risks associated with your participation, however some practitioners may experience some discomfort in having their consultations video recorded.

The results of this study will be submitted for publication as an original article in an appropriate peer reviewed medical journal.

Confidentiality

If the results of the trial are published, your identity will not be disclosed in any way. Information gained from participants will be secured in a locked filing cabinet and stored for ten years. Following this time period the information will be destroyed, and treated as confidential waste.

You have the option of what you would like us to do with the videotape after completion of the research analysis. You can decide whether we destroy it, or store it as confidential information at the WA Centre for Cancer and Palliative Care. If you wish for us to store the video it will mean that we may use it to demonstrate the research or for presentation purposes in the future. Please bear this in mind when making your decision.

Please indicate your decision by ticking the appropriate boxes on the Informed Consent Form.

Voluntary participation/Withdrawal from the Study

Your decision to take part in this study is voluntary. You may decline to participate or you may withdraw from the study at any time.

CURTIN UNIVERSITY OF TECHNOLOGY
Division of Health Sciences/WA Centre for Cancer and Palliative Care

CONSENT FORM

An evaluation of an electronic interactive referral pro forma (CRAB) for General Practitioners: A simulated patient study

Researcher (Student): Hayley Arnet
Research Supervisor: Professor Moyez Jiwa

1. I have been given clear information (verbal and written) about this study and have been given time to consider whether I want to take part.

2. I give permission to be video taped during the simulated consultations.
   I wish for this videotape to be (please tick one):
   □ destroyed after analysis
   □ stored appropriately at the WACCPC

3. I have had the opportunity to ask questions and these have been answered satisfactorily.

4. I understand that I am free to withdraw from the study at any time, for any reason, and without prejudice.

5. I agree to take part in this research study and for the data obtained to be published provided my name or other identifying information is not used.

6. I agree that the video recordings may be screened for discussion or presentation purposes subject to my consent on each occasion.

If you are unclear about anything you have read in the Participant Information Sheet or this Consent Form, please speak to the researcher or the research Supervisor before signing this Consent Form.

Name of Participant	Signature of Participant	Date
Name of Researcher	Signature of Researcher	Date

The Curtin University of Technology Human Research Ethics Committee has given ethics approval for the conduct of this study. If you have any ethical concerns regarding the study, you may contact The Secretary, Human Research Ethics Committee, Curtin University of Technology, GPO Box U1987, Perth, WA 6845; phone (08) 9266 2784; email hrec@curtin.edu.au

All study participants will be provided with a copy of the Information Sheet and Consent Form for their personal records.
CURTIN UNIVERSITY OF TECHNOLOGY

Division of Health Sciences/WA Centre for Cancer and Palliative Care

PARTICIPANT INFORMATION FORM

An evaluation of interruptions in consultations with General Practitioners: A simulated patient study

Researcher: Hayley Arnet
Chief Investigator: Professor Moyez Jiwa

You are being invited to participate in a research study that aims to explore the impact of interruptions to the general practice consultation. At present we know that interruptions to the consultations are generally unwelcome. However the impact on practitioner performance as measured by a valid and reliable test has not been documented. Before you decide whether to participate, it is important that you understand what it will involve.

If you have any questions about the study you may contact:

- Researcher Hayley Arnet (08) 9266 1764
- Professor Moyez Jiwa (08) 9266 1768

Purpose of study:
In this pilot study we will test a methodology for assessing interrupted consultations using 'simulated' consultations with six general practitioners at six stations

Study procedures:

We will videotape your consultations with six 'patients'. The 'patients' are actors who will be presenting with specific signs and symptoms. You will have a little bit of information about each patient and you are asked to consult them as per your normal practice. You will hear a bell at 15 minutes and at that point you must end the consultation and the 'patient' will move on to the next station. No physical examination that requires the 'patient' to undress is required although you are able to carry out any other examination. If you feel that you need to conduct a more detailed physical examination to aid your diagnosis you are instructed to tell the 'patient' what further examination is required in which case they may be able to tell you the results of that examination if it had been performed. Some of the consultations will be interrupted. The recorded consultations will be analysed with reference to recognized assessment tools for clinical consultations in general practice. The consultation will be analysed by suitably trained University researchers. You will be asked to answer a brief questionnaire after each consultation. Finally, following the consultations we will invite you to participate in a focus group and or interview in order to gain insight into the impact of interruptions on your consultations.

Payment for participation
We would like to offer you a fee of $150 for your participation in this study.

Risks/Discomforts/Outcomes of research

It is not envisaged that you will benefit directly from participation in this study. However the study should contribute to a better understanding of how to carry out a study on interruptions to GP consultations and how to measure the impact on those consultations in a meaningful way. There are no risks associated with your participation, however some practitioners may experience some discomfort in having their consultations video recorded.

The results of this study will be submitted for publication as an original article in an appropriate peer reviewed medical journal.

Confidentiality

If the results of the trial are published, your identity will not be disclosed in any way. Information gained from participants will be secured in a locked filing cabinet and stored for ten years. Following this time period the information will be destroyed, and treated as confidential waste.

You have the option of what you would like us to do with the videotape after completion of the research analysis. You can decide whether we destroy it, or store it as confidential information at the WA Centre for Cancer and Palliative Care. If you wish for us to store the video it will mean that we may use it to demonstrate the research or for presentation purposes in the future. Please bear this in mind when making your decision.

Please indicate your decision by ticking the appropriate boxes on the Informed Consent Form.

Voluntary participation/Withdrawal from the Study

Your decision to take part in this study is voluntary. You may decline to participate or you may withdraw from the study at any time.

CURTIN UNIVERSITY OF TECHNOLOGY
Division of Health Sciences/WA Centre for Cancer and Palliative Care

CONSENT FORM

An evaluation of interruptions in consultations with General Practitioners: A simulated patient study

Researcher (Student): Hayley Arnet
Chief Investigator: Professor Moyez Jiwa

1. I have been given clear information (verbal and written) about this study and have been given time to consider whether I want to take part.

2. I give permission to be video taped during the simulated consultations.
   I wish for this videotape to be (please tick one):
   1. □ destroyed after analysis
   2. □ stored appropriately at the WACCPC

3. I have had the opportunity to ask questions and these have been answered satisfactorily.

4. I understand that I am free to withdraw from the study at any time, for any reason, and without prejudice.

5. I agree to take part in this research study and for the data obtained to be published provided my name or other identifying information is not used.

6. I agree that the video recordings may be screened for discussion or presentation purposes subject to my consent on each occasion.

If you are unclear about anything you have read in the Participant Information Sheet or this Consent Form, please speak to the researcher or the research Supervisor before signing this Consent Form.

Name of Participant	Signature of Participant	Date
Name of Researcher	Signature of Researcher	Date

The Curtin University of Technology Human Research Ethics Committee has given ethics approval for the conduct of this study. If you have any ethical concerns regarding the study, you may contact The Secretary, Human Research Ethics Committee, Curtin University of Technology, GPO Box U1987, Perth, WA 6845; phone (08) 9266 2784; email hrec@curtin.edu.au

All study participants will be provided with a copy of the Information Sheet and Consent Form for their personal records.

Appendix B

Scenarios for simulated consultations

Workshop 1

Actor 1	
Who you are:	*Social History:* You are a 52yr old divorced female with 4 children (3 girls and a boy) all still living at home. You had 2 caesarean sections. *Medical History:* You've had your appendix and tonsils removed. You drink alcohol moderately, you smoke 20/d since 16yr old, stopped during pregnancies but is back smoking again. Your last tetanus vax was 2005. You are allergic to Penicillin. In 2000 you were diagnosed with high blood pressure (200/110) and you are taking an ACE inhibitor. Your blood pressure is now normal 120/80. Medications: Ramipril 2.5mg bd. *Family History:* Your father worked in an asbestos mine for at least 20 years, smoked and has lung problems. No cancer diagnosed. Your mother died in a motor vehicle accident when she was 40yr old. You don't have any siblings, which is why you had wanted lots of kids. *Previous consultation:* Your last consultation was 6 months ago for a chest infection. You had a bit of a cough since you've started on your blood pressure medication but that settled. It came back a few weeks ago but got worse; you started to cough up yellow mucus and had high temperatures. You were diagnosed with a chest infection and got a script for Erythromycin an antibiotic.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I just need another script for my blood pressure tablets please. I still have a bit of a cough after the antibiotics but I feel a lot better. I still cough in the mornings, guess it's the smoking. Had a bit of blood in it the other day though, about four weeks ago. Happened again a few nights ago. Had a bit of a coughing fit and coughed up a bit of blood again yesterday. It hasn't happened since". *Note:* You are worried because of what your Dad has been through.
What you say ONLY when asked:	▪ You lived in the town next to the asbestos mine till you were 18yrs old. ▪ Never coughed up blood before ▪ Had BP checked 1 month ago ▪ No shortness of breath ▪ No pain ▪ No change in weight ▪ No night sweats.
Exam results:	*General examination:* JACOL: NAD, BP 130/80 P90 T normal *Cardiovascular examination:* Normal *Respiratory examination:* Chest: "smoker's cough" (coarse creps) non productive at moment. Rest NAD *Abdominal examination:* Normal *ENT:* NAD

Guidance:	▪ The GP might discuss smoking cessation and recommend patches. You will come back to discuss that at another appointment. ▪ Might refer you for a chest XR and ask you to collect a sputum sample to culture. ▪ Will give you an x-ray form and a pathology form for the sputum because you can't cough up anything today. ▪ Might also do bloods (as last one was 6 months ago).

Actor 2	
Who you are:	*Social History:* You are a 55yr old male, married farmer. You have 3 grown-up kids, boy, girl, girl. *Medical History:* You are of normal height, weight and BMI. Your cholesterol was up in 2003 (5.5) but is now under control (3). You've had some skin cancers removed in the past, basal cell and squamous cell cancers. (BCC, SCC) You stopped smoking in 1990 and drink alcohol moderately. Your vaccinations are up to date, had your last tetanus in 2005, you are not allergic to anything but you have hypertension (high blood pressure) since 2003, stable angina since 2005. You've had your tonsils out as a child but no other surgery. *Medications:* GTN spray 5mg, Amlodipine 5mg/d, Lipitor 20mg Family History: Your mother died of bowel cancer in 2003, your father had hypertension and died of a heat attack in 1999 and your sister has asthma. *Previous consultation:* Your previous consultation was a few months ago for an infected wound on your left leg (leg ulcer which you got doing some gardening). You got some antiseptic, your tetanus was checked and you got a repeat script for your medication. Was supposed to come back for bloods and a check-up.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I'm here for a check-up and I need a script please". *Note:* ▪ Not short of breath when lying down, ▪ Not more short of breath when walking than usual can walk 50m; can climb one flight of stairs. ▪ No swelling of ankles or anywhere else, no coughing. ▪ No chest pain except a bit of angina when walking too far and too fast, but the same as the last 6 months. ▪ Need some bloods test before seeing the specialist (cardiologist Dr. Brown) for check up in 4 weeks. Referral letter still valid, so don't need new referral letter.
What you say ONLY when asked:	▪ No change in bowel habit, or rectal bleeding ▪ No diarrhoea/ constipation ▪ No weight loss. ▪ Last CXR in 2003, nothing suspicious
Exam results:	*General examination:* Nothing abnormal, BP 120/80 P88 T36.9 JACOL: Normal *Cardiovascular examination:* Normal heart sounds, no murmurs JVP: Normal *Respiratory examination:* Clear *Abdominal examination:* Normal
Guidance:	▪ GP might give you a referral for pathology- FBC, E-LFT, Chol, Gluc, etc. ▪ Script for blood pressure and angina tablets.

Actor 3	
Who you are:	*Social History:* You are a 58yr old married female who has two children, the first girl was born vaginally and the second girl was born by caesarean section after foetal distress. *Medical History:* You smoke on and off for years about 20/d at the moment. You only drink socially, and you do little physical activity. Your blood pressure was 140/90 since 2005 and you get it checked every 6 months but is has been normal since. Your vaccinations are up to date, you've had some skin cancers removed all SCC's. Your last PAP test in 2006 was normal. *Family History:* Your mother died of lung cancer in 2006 after smoking for years. Your father has high blood pressure, he had a heart attack and he has now stopped smoking. *Medications:* Nicorette patches *Previous consultation:* You have tried to stop smoking before, went cold turkey, and then tried patches. Your previous consultation several months ago was for Nicorette patches. It was recommended that you have some bloods done but you refused and postponed it to your next visit. You don't like needles.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I'm here about the smoking again. I've tried those patches but they've upset my bowels so I've stopped it. I'm back smoking 20/d again and I'm really worried about lung cancer because my mum died of it last year. My Dad tried some acupuncture treatment and he stopped smoking but I don't like the needles so I was wondering if there is something else I can try. I really want to stop smoking but it is just too hard. They say the patches are supposed to help with cravings but I ate a lot more and that made the tummy pain worse. It gave me more frequent loose motions as well and I think I now have piles because there is some blood sometimes. And it's still not back to normal even though I've stopped it weeks ago. I really don't want to use them again. A friend said they can do some hypnosis but I don't know if that would be too expensive".
What you say ONLY when asked:	Lungs: ▪ Smoked since in your twenties but grew up in a house full of smokers. ▪ Coughing only a little bit in the mornings, same as usual. ▪ Not coughing up any blood, sputum only clear/white most of the time. Sometimes yellow. ▪ No chest pain, no shortness of breath ▪ No CXR recently ▪ No weight loss Bowels: ▪ No family history of bowel cancer. ▪ No previous surgery ▪ No previous screening for bowel cancer e.g. colonoscopy, faecal occult blood. No previous stool culture ▪ Never had blood with stools before ▪ Blood mixed with motion not just on paper when wipe ▪ Blood red and dark, no clots. ▪ Bowel motions a bit black and sticky only once 6 weeks ago, not since. ▪ Change to diarrhoea since last visit
Exam results:	*General examination:* BP 130/85 P 84 T normal, anaemic – pale conjunctivae and tongue *Cardiovascular examination:* NAD *Respiratory examination:* Chest: Clear *Abdominal examination:* Bit of generalized tenderness but not severe, no rebound. Increased bowel sounds, no mass. No

		ascites.
	Rectal exam:	Normal soft faeces in rectum, no melena, red blood on glove. No piles or fissures with proctoscopy
Guidance:	GP might refer for: ▪ Colonoscopy ▪ Chest x-ray ▪ Abdominal x-ray ▪ Stool sample ▪ Blood tests	

Actor 4	
Who you are:	*Social History:* You are a 60yr old married female. You have had 4 pregnancies, two miscarriages and have 2 children, a boy and a girl all grown up. You had 2 caesarean sections because they were big babies. *Medical History:* You have type 1 Diabetes since childhood and uses insulin to control it. You don't smoke or drink, do moderate exercise, had a flu vax in 2006, you are not allergic to anything and the only surgery you've had was a hysterectomy for bleeding. Still have your ovaries. Your blood pressure is normal. Your blood tests in 2006 was all normal, Your HBA1c is normal- your blood sugar control is good. You've had one Basal Cell cancer removed. You also had a normal mammogram in 2006. *Family History:* Your mother has heart failure, your father has diabetes and high cholesterol and your sister also has Type 1 diabetes. *Medications:* Actrapid 10 U bd, Insulatard 10U mane *Previous consultation:* Your last visit was for a care plan, you were referred to see the diabetic nurse and podiatrist and you got a script for your insulin.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I'm worried about my eyes. My sight has been getting worse over the last few months and it is worrying me more and more. I think the stress has upset my stomach because I've had diarrhoea for the last 6 weeks as well. My blood sugar is a bit up and down as well with the diarrhoea I think, so now my eyes are even worse. I have trouble reading and watching television even with my glasses. I thought it might be time for me to see the eye specialist again?"
What you say ONLY when asked:	▪ Bowel motion runny, with pain when passing, several times a day, some red blood in the motion, not black, just a dark brown colour. ▪ Passing wind ▪ No family history of bowel cancer ▪ No colonoscopy, faecal occult blood test or stool cultures before
Exam results:	*General examination:* JACOL: NAD, BP 130/80 P96 T Normal *Respiratory examination:* NAD *Abdominal examination:* Generalized tenderness, increased bowel sounds, increased tenderness and a mass in the RIF, no rebound, no ascites, percussion dull over RIF rest resonant. *Rectal examination:* NAD. Proctoscopy: NAD. Rectum empty, no piles, red blood on glove.
Guidance:	▪ GP might refer you for bloods, abdominal x-ray, stool sample or faecal occult blood.

Actor 5	
Who you are:	*Social History:* You are a 40 yr. old divorced female. You have never been pregnant, so had no miscarriages or terminations either. *Medical History:* You have moderate asthma since childhood and hay fever since your twenties. You have no allergies but are careful taking non-steroidal tablets because it affects your asthma. You have a moderate intake of alcohol (twice a week, 2 glasses of white wine), you don't smoke, exercise moderately (once-twice a week). You have normal blood pressure, are up to date with all your vaccinations, normal blood glucose, cholesterol and a negative HIV with your last insurance medical in 2002; you are due for a PAP test in 2008. *Family History:* Your father had asthma and your mother had Hypertension. (No family history of any cancer) *Medications:* You started on the oral contraceptive pill at age 18yr. You are currently taking the Pill (Microgynon), a Ventolin puffer as needed and Flixotide puffer (1 puff 2x a day). *Previous consultation:* You have seen a GP at this practice last week with a sore right elbow. It started after you renovated your house and painted your lounge. The Dr. told you it was tennis elbow and to try some anti-inflammatory gel (which is fine with your asthma) and to rest it. You also got a script for your Ventolin.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I saw the other doctor last week with my elbow. He told me it was tennis elbow and to rest it and use Voltaren Gel, but it is no better. It's actually worse. It really hurts when I vacuum or work in the garden. I just want you to have another look and see if there is something else that can be done. Also, it started to hurt on my chest as well, not sure if it is because of how I hold my arm. It feels a bit lumpy too".
What you say ONLY when asked:	Elbow: ▪ No new injury and no old injuries to elbow, only the painting ▪ No previous tennis elbow. ▪ Don't play tennis ▪ Can't take anti-inflammatory tablets because of Asthma ▪ Haven't seen a physio or anybody else yet. Axilla/breast: ▪ Have felt the lump on chest after last visit and have examined it every day, a few times a day. Wasn't sore before but is sore now. ▪ Never had breast lumps before, last breast check was with previous PAP smear in 2006. You do not regularly check your breasts. ▪ Last menstruation was 2 weeks ago. ▪ No discharge from nipple. ▪ Still taking contraceptive
Exam results:	*Elbow- right:* It hurts on the lateral side (outside) of the right elbow when the doctor presses on it. Sore when flexing elbow but more so when have a straight arm. No pain on other side. Bit of pain down lateral side of forearm but not sure when pressed. No sensation loss or neurological symptoms like pins and needles, weakness. No redness and only a bit of swelling over later side of elbow. *Breast:* *B*it of tenderness and a hard discreet lump in the upper lateral quadrant of the right breast. Not attached to underlying tissue but bit of pulling on the skin when lifting arms above head. Rest of breast (both left and right) normal.

Guidance:	▪ Dr to exam elbow ▪ Breast (give GP card with exam findings and photo)

Actor 6	
Who you are:	*Social History:* You are a 63yr old widow with one child born by caesarean section for obstructive labour. You had one miscarriage. Had fertility treatment before both pregnancies. *Medical History:* You don't drink any alcohol, stopped smoking in your twenties, are usually fit and healthy. Your vaccinations are up to date; you're not allergic to anything but gets a bit of hay fever. You developed asthma after a bout of pneumonia in 1995 and you use Ventolin and Atrovent to keep it under control. No previous surgery but had a left ankle fracture in 1985. Your blood pressure is normal, your last cholesterol check was normal and your last PAP smear was normal in 2005. *Family History:* Your mother smoked and had skin cancers. Your father smoked and had a heart attack. Both still alive. Siblings all healthy. *Medications:* Ventolin puffer 1-2 puffs 4hourly as needed, Flixotide 125mcgs 2 puffs bd *Previous consultation:* Your last consultation was 6 months ago for a repeat script of your medications. You were well then.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I just need another script for my Atrovent puffers please. I have this "frog in the throat' for a while. Can the puffer make you hoarse? I feel a bit tired and I've lost my appetite a bit as well. I think the hot weather has something to do with that. Walked to the shops the other day and felt a bit breathless didn't have my Ventolin with me but it settled after a bit of a rest. Should I increase my Atrovent? I don't have a cough or a temperature, just feels a bit off the last month. I have also lost weight (3kg) over the last 5 weeks but thought it was due to loss of appetite".
What you say ONLY when asked:	▪ Hoarseness last month or two and didn't do any shouting or anything that could make you hoarse. ▪ Feels out of breath when walking 100m and Ventolin doesn't seem to work that well anymore for that. ▪ Cough only a little bit on and off, not productive. Not coughing up blood. ▪ No chest pain, but right shoulder a bit sore sometimes. Thought it was a bit of arthritis. ▪ Not short of breath when lying down, no swelling of ankles. ▪ Had to stop playing cards with friends because too tired the last 3 months. ▪ You had a CXR for insurance 3 months ago but they didn't say anything, was going to send the results to the surgery, should be in your notes. Then the GP can look for it and find a report with a small pleural effusion on right side. ▪ No family history of lung or bowel cancer.
Exam results:	*General examination:* JACOL: Bit pale rest NAD, BP 130/90 P105, T Normal *Cardiovascular examination:* NAD *Respiratory examination:* Clear *Abdominal examination:* NAD *ENT:* NAD except Hoarse voice *Shoulder*: Normal, NAD
Guidance:	▪ Might refer you for bloods. ▪ Might refer to see a specialist after reading chest x-ray report.

Workshop 2

Actor 1	
Who you are:	*Social History:* You are a 43yr old female, married with 2 children. Had 2 normal deliveries. *Medical History:* You suffer from migraines since teenager, have eczema. You don't drink alcohol, never smoked but not very active apart from running after the kids. You are not allergic to anything but are careful with things that trigger your migraines like coffee or chocolate. Your immunisations are up to date, you have normal blood pressure, normal cholesterol last checked in 2001 and your last Pap smear was 10-06. *Family History:* Your mother gets migraines, you never knew your father, and you have a sister who gets migraines, a brother with asthma and another brother with high cholesterol. *Medications:* You use Pizotifen 1.5mgs per day for migraines and 1% hydrocortisone cream for your eczema. You also have an IUD for contraception. *Previous consultation:* You saw your GP 6 months ago for a script for your migraine medication. You also had a Pap smear and a breast check. All was normal.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "Something is wrong, my migraines are terrible. The last 4 months they are waking me up and it feels like my head wants to fall off. Gets a bit better during the day but the medication are not working so well. I can't sleep, I can't concentrate and I keep forgetting things. Forgot my daughter's birthday the other day and she's not going to let me forget that I can tell you. Driving is a problem, had a little crash the other day; I think I must have fallen asleep at the wheel. Luckily I was almost at a stand still at the traffic light, just rolled into the car in front. I was wondering if I can get something else to control the headaches please".
What you say ONLY when asked:	▪ No seizures, occasional vomiting ▪ Headache worse in mornings, worse when bending down ▪ No ringing in the ears ▪ Have headache everyday now, started of with a few headaches a week gradually getting worse in the last 4 months and not responding to migraine medication. ▪ Dizzy at times but not falling over ▪ No personality change but cranky and husband is noticing. ▪ No numbness or loss of strength or mobility in limbs ▪ You are not feeling depressed.
Exam results:	*General examination:* BP 140/90 P60 T36.8 *Neurological examination:* GCS: 15/15, Romberg: +, Nystagmus to left, Pupils equal and normal light reflex

Actor 2	
Who you are:	*Social History:* You are a 58yr old male with 2 kids from 1st marriage and 1 from 2nd marriage. You are a bank clerk. *Medical History:* You have high blood pressure and high cholesterol. You drink 2 units of alcohol daily; you smoke 40/d despite your health problems and family history and do no physical activity. You are not allergic to anything. In 1999 your blood pressure was 210/120. Now controlled on medication. You need regular follow up for cholesterol. You had one BCC and 2 SCC's (Skin cancers) removed. *Family History:* Your mother is a healthy 86yr old, your father has high blood pressure and had a heart attack and you have one brother who had a heart attack at 48yr. *Medications:* Ramipril 2.5mgs 2x daily HT Rx, Atenolol 50mg/day and Lipitor 40mg /day chol Rx. *Previous consultation:* You saw the GP 7 weeks ago for a BP check because you have changed to new medication 3 months ago (previously amlodipine). You also complain of dysuria, frequency of small amounts of urine and pain over your bladder. You have had 2 previous UTI's in your life, one as a child and one in your twenties. O/E your BP was normal, and rest showed UTI. You were given Trimethoprim and told to come back for a urology work-up in a week. You didn't go back but your UTI cleared.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "The burning stopped but I still struggle to urinate. The other day I couldn't get anything out and had to walk around with a full bladder till I had tears in my eyes. Finally manage a few drops at a time, took forever. Not hurting anymore but I still have to go all the time, 10x a day and rush to the toilet, dribbling at the end and very slow to start. Thought I'd come back like you said".
What you say ONLY when asked:	▪ Never had prostate checked and bloods done for PSA. ▪ No erectile dysfunction, back pain, bone pain or weight loss. ▪ No blood in urine.
Exam results:	*General examination:* Unremarkable appearance, JACOL Normal BP 130/85 P 88 T normal *Cardiovascular examination:* NAD *Respiratory examination:* Smoker's cough, rest NAD *Abdominal examination:* Soft, Normal BS, no rebound, bit of suprapubic discomfort. *Urological examination:* Rectal examination found an enlarged, hard and very irregular prostate.
Guidance:	▪ Doctor might refer you for further investigations first or refer to specialist.

Actor 3	
Who you are:	*Social History:* You are a 63yr old female with one child *Medical History:* You have hay fever, and are postmenopausal since you were 51yr old. You have had an appendisectomy as a child, had your wisdom teeth removed in your twenties and had a tubal ligation when you were 38yr. You are allergic to Trimethoprin, your last flu vaccination was 03-07 and the rest of your vaccinations are up to date. You used to smoke 40/d cut down to 20/d in your fifties but stopped in 2005. You go to the gym twice a week you don't drink. *Family History:* Mother has Angina and hypertension; Father had a few skin cancers and has Type 2 diabetes. You have 3 siblings all well and healthy. You have normal blood pressure, normal cholesterol, had a basal cell carcinoma removed in 2003. Your last mammogram was in 2006 as well as your last PAP smear. *Medications:* HRT – Trisequens. *Previous consultation:* You've seen your GP 3 months ago for a HRT script and mentioned in passing that you were tired but very busy at work and not sleeping well. You had no other complaints, your blood pressure was 110/80, all the rest was normal as well. You were given a script and asked to come back for your Pap smear and Breast check in 6 months.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I saw you 3 months ago and I'm still very tired. I struggle to get up in the mornings and I can't even climb one set of stairs without getting short of breath. My throat feels dry and I have this postnasal drip from my hay fever that makes me cough. The other day I coughed and coughed and coughed and suddenly I coughed up this whole lot of blood. I was going to come in but I just couldn't find the time and it stopped. But yesterday it happened again so I've taken sick leave today. I'm not feeling so well, bit hot and sweaty as well, not sure if that is just the weather".
What you say ONLY when asked:	▪ The first episode of coughing up blood was 7 weeks ago. Had little specks of blood several other times but not another large amount until yesterday. All were bright red blood. Never happened before. ▪ Used to smoke a lot 40/d when younger, cut down to 20/d after 50yr of age and has stopped in 2005. No smoking since. ▪ Gym twice a week but stopped going the last few weeks, get short of breath after 2 minutes on the treadmill. No wheezing. ▪ No previous head or neck cancers. ▪ Lost 2.5kgs in weight in 2 weeks.
Exam results:	*General examination:* Pale and bit cyanosed around lips, Temp Normal, Pulse 94, BP 100/60. Lymph nodes: left side. *Respiratory examination:* Mild dyspnoea, Mild Wheeze and coarse crepitation both lung fields. *Cardiovascular examination:* Tachycardia but no murmur *Abdominal examination:* Soft, normal bowel sounds, no mass
Guidance:	▪ Might get referred for CXR and told to come back same day

Actor 4	
Who you are:	*Social History:* You are a 59yr old female who has 2 kids born by C/S. *Medical History: You* have Type 2 diabetes and high cholesterol since 2001. You've lost a lot of weight since then and your cholesterol is controlled by diet, however your diabetes still needs tablets. Your vaccinations are up to date; you drink alcohol occasionally, gym x4/w and never smoked. You're not allergic to any medications. You have had one skin cancer removed- SCC and your last Pap smear was in 2005 however no breast exam included. *Family History:* Mother obese, Father obese and died of stroke, two obese sisters. *Medications:* Metformin 500mgs tds *Previous consultation:* A month ago you saw your GP for a Diabetic check up.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I've cut my finger and I think it's infected now. Was cooking dinner 3 nights ago and the knife slipped. I've put some antiseptic on but now my hand hurts. After GP examined hand you also say: My mother's sister was diagnosed with breast cancer and I was wondering if I should worry about that?"
What you say ONLY when asked:	▪ Last breast check was 6 years ago, never had a mammogram. ▪ Had lumps in breasts after breastfeeding the kids but it seemed to settle. Had an ultrasound then and it looked like cysts. ▪ Do not self examine breasts, tried once after aunt was diagnosed but gave up. ▪ Post menopausal since age 48yr. ▪ No discharge from nipple. No breast cancer in rest of family.
Exam results:	*General examination:* JACOL normal BP normal P 74, T 36.8 *Cardiovascular examination:* Normal *Respiratory examination:* Normal *Abdominal examination:* Normal *Examinations of limbs:* Left index finger, cut on medial side 3mm, superficial, *Breast examination:* Right breast –hard lump 3mm to right of nipple, not very mobile feels fixed to underlying tissue, no skin tethering. No other lumps. Left breast normal. Axilla clear.
Guidance:	▪ Doctor might tell you to come back for a next appointment to do full breast check and Pap smear etc. ▪ Might refer for ultrasound or mammogram or refer to specialist.

Actor 5	
Who you are:	*Social History:* You are a 49yr old female, married with 3 kids. *Medical history:* You have asthma since childhood, usually worse in winter. You have a moderate intake of alcohol, never smoked, do moderate physical activity. You are not allergic to anything and all your vaccinations are up to date. Blood pressure normal, last Pap smear was in 2006 and was normal and you have normal cholesterol. You were on the Pill but stopped in 2004 when your husband had a vasectomy. *Family history:* Your mother died of breast cancer when she was 65yr, your dad has asthma but is otherwise well and you have 2 healthy brothers. *Medications:* Singulair tablets and Ventolin puffer as needed. *Previous consultation:* Was 4 months ago. You had a high Temperature, were coughing and had a bit of blood in the mucus on 2 occasions. You felt a bit short of breath and the Ventolin was not helping. You also had some muscle pains. You were diagnosed with a chest infection that also made your asthma worse. You were given Augmentin antibiotic for 10 days, Prednisone tablets for 3 days, and Atrovent puffer was added. You were asked to return in a week if not better for a CXR. You got better within days and did not go back for a follow up.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I'd like a script for my Singulair please. We are going away for a month and I'll run out during that time. Everything has settled down after my chest infection and I stopped the Atrovent. Didn't need any Ventolin for the last 2 months. I finished all the antibiotics and needed only 3 days of the prednisone. I'm feeling much better"
What you say ONLY when asked:	▪ No other problems, feel well. Doesn't need anything else. ▪ You are only going down South to see family so you don't need anything else for travel. You have enough Ventolin, have some leftover Prednisone and Atrovent if needed and will take it with you.
Exam results:	*General examination:* JACOL Normal, BP 120/80 *Respiratory system:* Chest clear *Cardiovascular system:* Normal
Guidance:	▪ No exam needed but might GP might want to listen to your chest and take your BP.

Actor 6	
Who you are:	*Social History:* You are a 65yr old female with 2 kids, one 30yr and one with Downs syndrome 32yr old. Your husband died of a heart attack in 2006. *Medical History:* You were diagnosed with depression in 2006 after your husband died. You had a Colles fracture on the right in 1998, Hysterectomy in 2000 for bleeding, Appendisectomy in your twenties and a tonsillectomy as a child. You are allergic to Penicillin, your vaccinations are up to date. You don't drink but you smoke since childhood, at the moment about 10/d. You do moderate activity. Your blood pressure is the high end of normal, you have normal cholesterol and sugar, last mammogram and pap smear were in 2006 and normal. *Family History:* Mother died in car accident, Father died of bowel cancer, and sister has high blood pressure. *Medications:* Prozac one/d, Temazepam one at night. You've taken Temazepam since after your husband died and are struggling to come off it. On weaning program for the last 3 months. *Previous consultation:* Was 3 weeks before and you complained of tiredness, not able to sleep since starting the weaning program for Temazepam. There are no spots available for your Downs child for respite so you can get some rest. You saw the GP for a check up. O/E he found that you were pale and your BP were low, you had a few small glands in your neck and groin and a bit of abdominal discomfort but no rebound. Urine test was normal and sugar was normal 3.5. He advised a holiday and sent you for bloods. You are coming back for the results.
What you say or volunteer without being asked:	*GP:* "What can I do for you today?" *You:* "I'm here for my results. Had a couple of bloods done after my last visit. Still tired".
What you say ONLY when asked:	▪ You have a change in bowel habit for the last 9 weeks, started with what you thought was gastro, felt sick etc. Got better after a week but you still have irregular motions sometimes several times a day, then diarrhoea then constipated. ▪ No blood in motions. ▪ No nose bleeds, vomiting blood, no unusual bruising. ▪ No epigastric pain. Have a bit of loss of appetite but not because it causes abdominal pain. ▪ No menstruation because you've had a hysterectomy. ▪ Do eat meat regularly but a bit less the last few weeks. ▪ No history of ulcerative colitis or Crohn's disease.
Exam results:	*General examination:* JACOL Anaemic, P 98, BP 110/60, small nodes neck and bilateral groin, non-tender. *Cardiovascular examination:* K1K2 soft flow murmur systolic, mitral valve. *Respiratory examination:* Clear *Abdominal examination:* Generalised discomfort, lots of BS, no rebound or ascites. *Rectal examination:* Dark stool, soft, no blood.
Guidance:	▪ GP might not examine you at all, might just refer you for further investigations or to specialist.

Appendix C

Consultation sequencing for Workshops 1 and 2

Workshop 1

	GP					
Room no.	1	2	3	4	5	6
1	5	4	3	2	1	6
2	6	5	4	3	2	1
3	1	6	5	4	3	2
4	2	1	6	5	4	3
5	4	3	2	1	6	5
6	3	2	1	6	5	4

Workshop 2

	GP					
Room no.	1	2	3	4	5	6
1	4*	3	2	1	6*	5*
2	5*	4*	3*	2	1	6
3	6*	5*	4	3	2	1*
4	2	1	6*	5*	4*	3
5	3	2*	1*	6*	5	4
6	1	6	5	4*	3*	2*

* Interrupted consultations

Interruptions for Workshop 2:

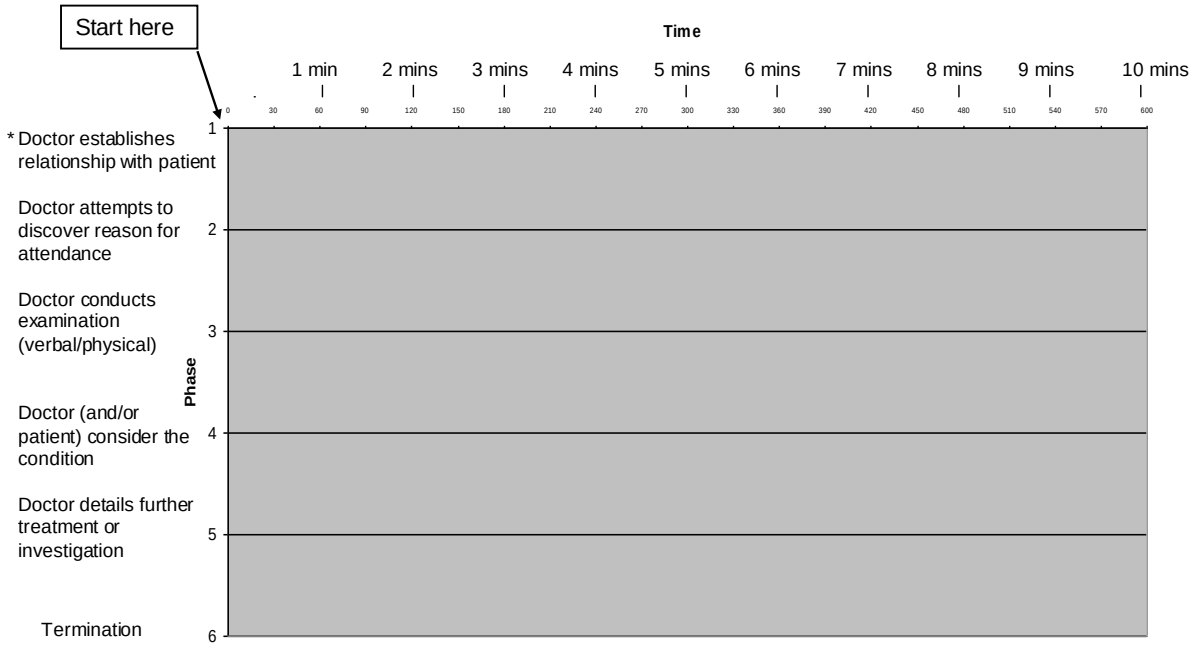
	GP					
Room no.	1	2	3	4	5	6
1	A				B	C
2	B	C	A			
3	C	A				B
4			B	C	A	
5		B	C	A		
6				B	C	A

Key: A – Patient takes mobile phone call
B – Patients car lights on
C - Practice manager looking for patient file

Appendix D

Consultation map template

Rituals of the General Practice consultation



Comments: _____

_____

_____

*(Bryne and Long model, 1976)

Appendix E

Letter to GPs regarding postal survey

Dear x,

RE: Simulated consultation projects

As a follow-up to the simulated consultations in which you participated earlier this year I am seeking your opinion on issues relating to the flow of the general practice consultation. I enclose two sheets that I request that you please complete.

The first sheet entitled "**The flow of the consultation: a review of simulated consultations**" contains a number of statements relating to tasks carried out in the general practice consultation. These statements derived from a 'stimulated recall' session with representatives of the GPs and actors (surrogate patients) who participated in the simulated consultations. This session involved playing back selected footage from the consultations to these representatives for feedback or comment to gain further insight into the consultation.

I would appreciate if you could please review the statements, indicate your opinion and offer any further comments or observations.

Please note if you do not agree with all of a statement please underline any aspects of the text with which you disagree and tick the 'disagree with sections underlined' box.

The second sheet entitled "**Rituals of the General Practice consultation**" contains a blank graph template. This graph shows the phases of the general practice consultation as described by Byrne and Long (1976) down the y-axis against the time passed during the consultation on the x-axis.

I invite you to plot the points on the graph that indicate at what time point in your consultation you feel that each phase occurs. The template shows a 10-minute consultation however you may feel your consultations generally conclude earlier or later.

If you have any queries about completing these sheets please contact me on (08) 9266 1764 or 04 1518 5854.

Once completed please return the two sheets in the reply paid envelope.

Thanking-you in advance for your response.

Regards

Hayley Arnet

Appendix F

Summary of JIF for comment by GPs

The flow of the consultation: a review of simulated consultations

Task	Feedback from JIF session	Opinion	Your comments:
1. The opening sequence (the greeting and initial inquiry):	The opening sequence is important to the outcome of the consultation. The patient must receive the practitioner's undivided attention. The opening phase requires the judicious use of silences and open body language to facilitate disclosure. The patient must perceive that the doctor is 'interested' and be allowed to 'list' their complaints to avoid failure to address a significant problem that is mentioned later when the consultation is concluding.	Agree with all: ☐ Disagree with sections underlined: ☐ Not sure: ☐	
2. History-taking:	History-taking often flows through a series of predetermined questions that relate to a specific complaint. These questions are compiled within a 'tick list' that the practitioner has usually rehearsed several times previously. The patient has the opportunity to influence the direction of the inquiry by non-verbal cues e.g. posture, facial expression etc. Sensitivity to these cues can take the consultation in a different direction than previously envisaged.	Agree with all: ☐ Disagree with sections underlined: ☐ Not sure: ☐	
3. Examination:	Examination is often part of the 'ritual' in the consultation. The practitioner has often decided on a course of	Agree with all: ☐ Disagree with sections underlined: ☐	

	action even before the examination. However the process of examination forges an 'emotional' link between the patient and the doctor. It affords the practitioner time to ponder the problem and serves to reassure the patient.	Not sure: ☐	
4. Management plan:	The ordering of tests can also serve to 'buy' time to consider the problem. Tests are not necessarily helpful in making the diagnosis or even in the management. Tests can serve as a mark of 'quality' in the practice and to reassure the specialist that the patient has received a 'full work up'. It is important that the referral process is endorsed by the specialist.	Agree with all: ☐ Disagree with sections underlined: ☐ Not sure: ☐	
5. Interruptions:	Interruptions are an expected, part of a 'normal day'. Computers are viewed as a tool and malfunction is more likely to adversely affect the flow of the consultation than most other interruptions. Patients taking calls on a mobile phone also significantly interrupts the consultation. Patients are usually not upset by the GP performing other tasks during the consultation.(e.g. taking a telephone call about another issue). Doctors are efficient at switching from once patient / task to another.	Agree with all: ☐ Disagree with sections underlined: ☐ Not sure: ☐	Can you suggest interruptions that significantly impede your performance?
6. Limitations of 'simulated consultations':	The consultation may be influenced by previous experience with the patient and the existing doctor-patient relationship.	Agree with all: ☐ Disagree with sections underlined: ☐ Not sure: ☐	

	Recording the consultation may adversely affect the flow of a consultation.	Agree with all: ☐ Disagree with sections underlined: ☐ Not sure: ☐	
7. Any further comments:			

Appendix G

Responses to Mapping Typical Consultation