Organisational culture and its influence on physicians' consultation style in Hong Kong

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ABSTRACT

Chronic diseases are considered to be a global health system challenge, contributing to 60% of all deaths worldwide in 2005. There is a recognised need for patients with chronic diseases to make regular medication decisions with their GPs[1] as an essential part of consultations. A growing body of evidence from the UK, the United States and China has suggested a link between GPs' involvement of patients and information sharing in treatment decisions and improved communication and clinical performance.

Charles and colleagues (1999) proposed a continuum of consultation models with increasing patient engagement, the one-way GP-dominant "paternalistic" style, the two-way "shared decision-making" (SDM) style, and the one-way patient-dominant "informed" style. These models illustrate various levels of involvement and knowledge sharing between GPs and patients in the treatment decision-making process. Yet, there is a lack of evidence to determine how organisational culture drives different consultation styles and improves decisional communication in Asian countries. Therefore, this qualitative study explored GPs and primary care managers' perceptions of organisational culture within public and private healthcare organisations in Hong Kong, and how these perceptions influence GPs' consultation style during medication consultations with patients with chronic diseases. Themes were generated from in-depth individual interviews with fourteen GPs and five primary care managers, based on two analytical frameworks, the Hofstede cultural dimension theory (2001/2011) and Hofstede's multi-focus model of organisational culture (1990)**.** Four themes concerning national culture, organisational culture, the system-, practice- and individual factors, as well as the financing and service level initiatives to drive cultural changes, were identified as influencing GPs' consultation styles. The study highlighted that an engaging management style and customer-focused and mandatory learning cultures within healthcare organisations promoted greater use of two-way consultation styles by GPs during the consultation.

In contrast, the study also found that authoritative, profit-driven and voluntary learning cultures within healthcare organisations promoted more one-way consultation styles, such as the paternalistic or informed styles. Thus, this study contributes to a better understanding of the positive and negative influences of national and organisational cultures on GPs' practice of SDM with patients in discussions of chronic disease management across public and private healthcare organisations in an Eastern Asian country. Further research on the national culture of health care financing and patients' influences on consultation styles is needed before the association between organisational culture and consultation style can be comprehensively understood.

[1] For brevity in this thesis, the British term "GP" will be used to describe doctors based in the community, who treat patients with minor or chronic illnesses in primary care. In Hong Kong, they are either referred to as GPs or family medicine specialists in public healthcare or are known as GPs or specialist GPs in private healthcare.

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TABLE OF ABBREVIATIONS AND DEFINITIONS

Abbreviations	Explanations
AIRS	Advanced Medical Incident Reporting System
AKT	Applied Knowledge Test
CASP	Critical Appraisal Skills Programme
CINAHL	Cumulative Index of Nursing and Allied Health Literature
CME	Continued Medical Education Scheme
CMS	Clinical Management System
CVF	Competing Values Framework
DH	Department of Health in Hong Kong
DM	Diabetes mellitus
FM	Family medicine
FHKCFP	Fellow of Hong Kong College of Family Physicians
FHKAM(FM)	Fellow of the Hong Kong Academy of Medicine (specialist in Family Medicine)
GMC	General Medical Council (UK)
GNI	Gross National Income per capita
GP	Clinicians working in general practice or family medicine settings
HA	The Hong Kong Hospital Authority
HDI	Human Development Index
HK	Hong Kong
HKCFP	Hong Kong College of Family Physicians
HMO	Health Maintenance Organisation –a medical insurance group that provides health services for a fixed annual fee
HT	Hypertension
IDV	Individualism
IMHP	Integrated Mental Health Programme (IMHP);
IND	Indulgence
JCSPHPC	Jockey Club School of Public Health and Primary Care
LTO	Long-term orientation
MAS	Masculinity
MBBS	Bachelor of Medicine, Bachelor of Surgery
MBChB	Bachelor of Medicine, Bachelor of Surgery
MeSH	Medical subject headings
MRCGP	Full membership (GP registration) with the General Medical Council
MRCP	Membership of the Royal Colleges of Physicians
NHS	The National Health Service
NNT	The number needed to treat, an epidemiological measure used in communicating the effectiveness of a treatment, is the average number of patients who need to be treated to prevent one additional bad outcome.
OCI	Organisational Culture Inventory

OSCE	Objective structured clinical examination
PDI	Power distance
PPP	Public Private Partnership Programme
RAMP	Risk Assessment and Management Programme
RCGP	Royal College of General Practitioner
SDM	Shared decision-making
SES	Socioeconomic status
SQRQ	Standards for Reporting Qualitative Research
UAI	Uncertainty avoidance
UK	United Kingdom
US	United States
WHO	World Health Organisation

CHAPTER 1 ORGANISATIONAL CULTURE AND GPS' DELIVERY OF CARE - A THEORETICAL REVIEW

1.1 INTRODUCTION

This research aims to explore GPs' perceptions of organisational culture within public and private healthcare organisations in Hong Kong and how they influence their consultation styles with patients with chronic diseases. The research question is 'What is the nature of GPs' consultation style in Hong Kong, and how is it influenced by the organisational culture within healthcare organisations?' This chapter provides the overall context of the research by discussing the importance of decision-making communication between GPs and patients with chronic diseases, and the current healthcare communication strategy and consultation models within Hong Kong and worldwide. It offers background on the different consultation styles in various health system contexts and elaborates further on the similarities and differences in the medical education and consultation training for GPs from Hong Kong in the east and the United Kingdom (UK) in the west. The definition and role of organisational culture, and key theoretical concepts of national and organisational culture in healthcare communication and practices will also be discussed.

1.2 TWO-WAY COMMUNICATION TO FOSTER SAFE TREATMENT DECISION-MAKING AMONG PATIENTS WITH CHRONIC CONDITIONS

Chronic disease is increasingly recognised to be a serious, worldwide concern, contributing to 60% of all deaths worldwide in 2005 (Centers for Disease Control and Prevention, 2012). A rapidly ageing society like Hong Kong, having one of the highest life expectancy rates in the world (84 years in 2015), brings with it a higher incidence of multi-morbidity (Research Office Legislative Council Secretariat Hong Kong, 2015;

The World Bank, 2015). Multi-morbidity can be defined as the co-occurrence of two or more chronic physical and mental medical conditions (Fortin, Bravo, Hudon, Vanasse, & Lapointe, 2005; Wallace et al., 2015). Around 40% of Hong Kong elders aged 65 or above reported having three or more chronic conditions in 2008; with up to 75% of those aged 75 or above in Western countries experiencing the same (The Organisation for Economic Cooperation and Development, 2011; Wong et al., 2008). It is projected that, by 2034, a third of the Hong Kong population will have at least one chronic condition (Research Office Legislative Council Secretariat Hong Kong, 2015; The World Bank, 2015). Concerns have been raised about the safety of polypharmacy, the concurrent use of five or more medications needed to treat patients' multiple chronic conditions across Hong Kong (Lam, 2010), the United States (US), Italy, Canada, Scotland and Australia (Maher, Hanlon, & Hajjar, 2014; Masnoon, Shakib, Kalisch-Ellett, & Caughey, 2017). Polypharmacy is associated with an increased risk of drug-illness or drug interactions, reduced treatment adherence, and declining cognitive and functional capacity across community, hospital and nursing home settings (Duerden, Avery, & Payne, 2013; Maher et al., 2014; Scoggins, Tiessen, Ling, & Rabinovich, 2007).

To reduce risk and harm for these patients, two-way GP-patient communication about medication decisions (shared decision-making) has been suggested to improve safe prescription decisions and clinical effectiveness in general practice across the UK and Australia (Duerden et al., 2013; Harris, Dennis, & Pillay, 2013; Scoggins et al., 2007). GPs are patients' first contact point in the community and have to make regular and repeated clinical decisions with them. Thus, clinical decision-making is described as an ongoing communication process influenced by long-term rapport and GP-patient

interaction (Politi & Street, 2011). Aside from clinical decisions, GPs also need to make referral decisions with patients about consulting a specialist, and other decisions to fulfil their social health needs (Department of Health, 2012; Martin, Peterson, Robinson, & Sturmberg, 2009; Wagner, 2000). Previous studies in the US have found a link between treatment preferences and uncertainties sharing among GPs and patients, and greater mutual involvement in medical decisions, safer practices, increased social support and patient empowerment, which in turn, improved patients' clinical and psychosocial wellbeing (Garg, Shen, Sambamoorthi, Kelly, & Sambamoorthi, 2016; Heisler, Cole, Weir, Kerr, & Hayward, 2007; Institute for Healthcare Communication, 2011). However, more research is needed to fully understand the various ways GPs involve and make medication decisions with patients having multiple chronic diseases, and how such interaction influences GPs' consultation styles.

1.3 THEORETICAL FRAMEWORK: CONSULTATION MODELS

To understand the decision-making styles of GPs, Charles, Whelan and Gafni (1999) proposed a continuum of models to illustrate the various levels of involvement and knowledge sharing between GPs and patients in the process (Figure 1).

Figure 1 Decision-making consultation models

Analytical stages		Paternalistic model	Intermediate approaches	Shared model	Intermediate approaches	Informed model
Information exchange	Flow	One way (largely)		Two way		One way (largely)
	Direction	Doctor ↓ patient		Doctor ↓ ↑ patient		Doctor ↓ patient
	Type	Medical		Medical and personal		Medical
	Minimum amount	Legal requirement		Anything relevant for decision making		Anything relevant for decision making
Deliberation		Doctor alone or with other doctors		Doctor and patient (plus potential others)		Patient (plus potential others)
Who decides what treatment to implement?		Doctors		Doctor and patient		Patient

(Charles et al., 1999, p.781)

Figure 1 illustrates the GP-dominant "paternalistic" style does not give priority to patients' preferences, and limits patients' involvement to simply consenting to GPs' proposed treatment (Charles et al., 1999; Emanuel, 1992). Charles, Whelan and Gafni (1997) suggested the paternalistic style is acceptable for patients who wish to have little or no say in the decision-making process, for example, in the context of irreversible, emergency or life-threatening decisions. In contrast, the patient-dominant "informed" style allows patients to take full responsibility for treatment decisions and limits GPs to the role of information providers. Previous research suggests that the informed style is more feasible for psychologically competent and clinically informed patients, in the context of reversible and non-emergency decisions (Charles et al., 1999; Emanuel, 1992). Both the paternalistic and informed styles consist of one-way communication, with either the GP or patient dominating the decision, which in turn leaves the other party out of the decisional process (Charles et al., 1997). Shared decision making (SDM), however, lies in the middle of the continuum and involves both GPs and patients sharing their perspectives and co-producing decisions together. In the UK, the US and

Australia, consultations in which SDM was initiated by GPs showed improved clinical outcomes, medication adherence and safe prescription practice (Butler et al., 2001; Jansen et al., 2016; Peek et al., 2013; Wilson et al., 2010). Previous studies in the UK have demonstrated similar benefits of SDM among patients with long-term conditions when they had to make, adjust and revisit multiple non-emergency decisions regularly with GPs (Murray, Pollack, White, & Lo, 2007). However, some authors found SDM was too time and energy-demanding for GPs and patients, exchanging views not only on biological illness but also discussing patients' psychological and social preferences surrounding clinical decisions (Charles et al., 1999; Murray et al., 2007). In practice, Charles et al. (1997) observed that applying different elements or consultation styles is a fluid process, subject to patients' capacities and the urgency of their decisions. For example, the intermediate approaches in Figure 1 illustrate a mix of communication approaches from one or more consultation styles. Charles et al. (1999) have observed a growing shift among GPs and patients with chronic diseases towards the patient-centred styles, fostering closer rapport and higher confidence in decision processes.

Charles et al.'s (1999) model offers a dynamic mix of communication elements and consultation styles (ways and mode of exchanging information, advantages and disadvantages of options and making the final decision), addressing the role and contribution of both patients and health professionals in the decision processes. Other healthcare communication models, however, fail to address the important role played by patients, carers or allied health professionals in health decisions across social or community health settings. For example, Neighbour's (2004) "the Inner consultation" and Long and Byrne's (1976) "six phases of the consultation" are recommended consultation models for GPs' curriculum, but they focus only on GPs' consultation skills.

1.4 POLICY CONTEXT

In the UK, the SDM model has been advocated as a promising strategy in the National Health Service (NHS) to support chronic care and other non-emergency treatment decisions (Department of Health, 2010, 2012). In the Montgomery v Lanarkshire Health Board case (2015), the supreme court decision highlighted a societal change in the UK from doctor-centred medical decision-making in the Bolam test[2] to a culture of patient-centred decision-making (The Supreme Court of United Kingdom, 2015). A new legal benchmark in risk and information disclosure has implications for doctors in the UK to adopt SDM by actively involving patients and exchanging perspectives with them to make clinical decisions, as illustrated in Box 1.

[2] The case *Bolam v Friern Hospital Management Committee* (1957) 1 WLR 583 established that if a doctor acts in accordance with a responsible body of medical opinion, he or she will not be negligent (Oxford University Press, 2019). The Bolem test was used to determine the standard of care owed by professionals to those whom they serve. It was rejected in the 2015 Supreme Court decision of *Montgomery v Lanarkshire Health Board*.

Box 1 Legal implication of Montgomery v Lanarkshire Health Board case [2015]UKSC 11

The supreme court decision in the Montgomery case (2015) overrides the benchmark criterion used in the "Bolam test", Bolam v Friern Hospital Management Committee case [1957] 1 WLR 582, 587 across the UK and Hong Kong that a doctor would not be guilty of negligence if their practices conformed to a responsible body of medical opinion. As representatives of the medical community in the UK, the medical Royal Colleges had the power to define what was "reasonable" information to provide or withhold. In 2015, the House of Lords stated the court, but not the medical professions, hold the responsibility to determine the extent and nature of a person's rights. In a fortnight, the Montgomery case highlighted changes from a doctor-centered in the "Bolam test" to a patient-centred consultation style in the Montgomery case. The Lords in the case pointed towards a legal approach which,

> "instead of treating patients as placing themselves in the hands of their doctors (and then being prone to sue their doctors in the event of a disappointing outcome), treats them so far as possible as adults who are capable of understanding that medical treatment is uncertain of success and may involve risks, accepting responsibility for the taking of risks affecting their own lives, and living with the consequences of their choices." (The Supreme Court of United Kingdom, 2015, p.26)

The case concluded doctors' have a duty of disclosure by quoting the General Medical Council's report on medical decision-making using a partnership approach:

> "The doctor explains the options to the patient, setting out the potential benefits, risks, burdens and side effects of each option, including the option to have no treatment. The doctor may recommend a particular option which they believe to be best for the patient, but they must not put pressure on the patient to accept their advice. The patient weighs up the potential benefits, risks and burdens of the various options as well as any non-clinical issues that are relevant to them. The patient decides whether to accept any of the options and, if so, which one." (General Medical Council, 2008, p.7)

(The Supreme Court of United Kingdom, 2015, The Medical Council of Hong Kong, 2015)

The court decision for the Montgomery v Lanarkshire Health Board case has implications for doctors in the UK as it encourages them to adopt SDM by actively involving patients in clinical decision-making (The Supreme Court of United Kingdom, 2015, The Medical Council of Hong Kong, 2015). The National Patient Survey in 2017 revealed that SDM is prevalent in the NHS, with around 90% of patients reporting feeling involved or somewhat involved in their clinical decisions (National Health Service England, 2017). Other countries throughout Europe and America are also exploring the potential to incorporate SDM into clinical practice with various degrees of progress in policy and research development (The Health Foundation, 2013).

However, a review of studies in 70 countries across America, Europe, Africa, Australia and the Middle East reported that the paternalistic style was still prevalent in clinical consultations (Pollard, Bansback, & Bryan, 2015). The authors concluded that physicians' willingness to practise patient-centred styles remained low due to the influence of patient characteristics, the clinical context, the personal attitude of the physician and also the availability of organisational support across primary and secondary care. Another multi-centred study from Canada had similar findings, concluding that minimal SDM behaviours were observed among primary care physicians (Menear et al., 2017).

Regarding patients' preferences for different consultation styles, a review from the US, Canada and Israel reported that not all patients preferred SDM, with a significant proportion wishing for more or less control and involvement in the decision-making process (Benbassat, Pilpel, & Tidhar, 1998). Even for those who preferred a more shared consultation style, the extent of involvement varied in the different clinical situations and decisional contexts (Benbassat et al., 1998). Studies from the UK, the United States and Canada revealed patients and GPs welcomed the idea of SDM but were not fully ready to be involved in a shared or informed consultation process, while GPs were also concerned about how to adopt a patient-centred approach (Alden, Merz, & Akashi, 2012; Elwyn, Edwards, Gwyn, & Grol, 1999; Spies et al., 2006). To date, the evidence suggests beneficial effects of the patient-centred styles in healthcare communication, but some major challenges include patients' lack of confidence, and physicians' lack of time and training in engaging patients in a more patient-centred discussion (Pollard et al., 2015; The Health Foundation, 2013).

1.5 POLICY CONTEXT IN HONG KONG

In Hong Kong (HK), the Hospital Authority Strategic Service Framework for Elderly Patients listed patient-centred communication style as one of its strategic goals:

> Promote communication and information sharing with elderly patients and their carers to enable them to participate and make informed shared decisions related to their care, where appropriate (2012, p. 4).

To date, however, little progress has been made in practice. While SDM is a growing field in the UK and other developed nations, HK is lagging without clear policies, comprehensive decision tools and skills training in place for either GPs or patients. For GPs, there are limited, sporadic workshops on SDM provided by an indemnity insurance company, as a form of continued medical education (Hong Kong College of Family Physicians, 2015). For patients, the Hospital Authority "Smart Patient" website suffers from a lack of information about GP-patient communication and decision-making (Hong Kong Hospital Authority, 2016). Reflecting these limited initiatives, a more doctor-centred consultation style was still prevalent in HK according to a territory-wide survey of public hospitals in 2010 (Wong et al., 2011). The survey suggested that patients expressed their wish to be more involved in clinical decisions, a factor which directly impacted on their perceived satisfaction with the quality of hospital care (Wong et al., 2011).

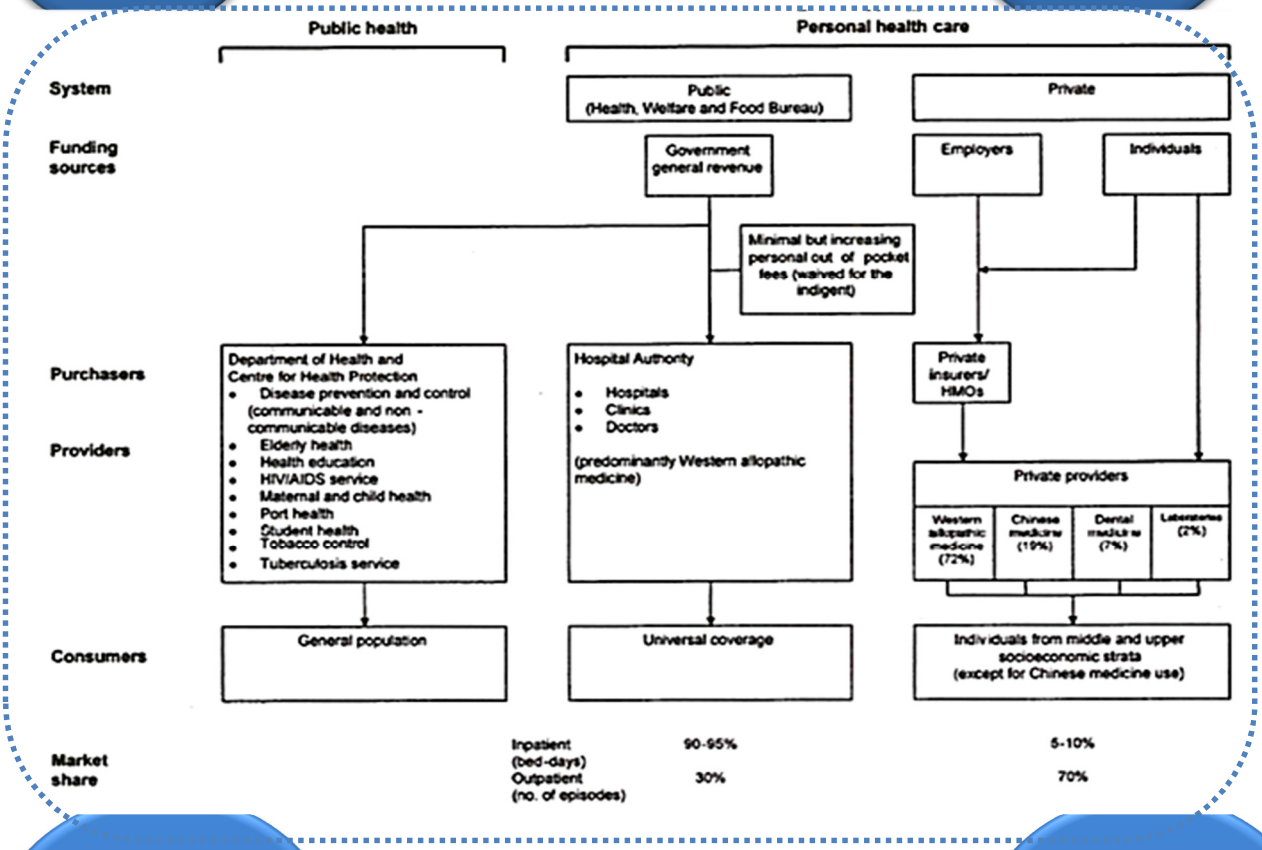
1.6 THE HONG KONG HEALTH SYSTEM - ROLE AND FUNCTIONS OF THE PUBLIC AND PRIVATE SECTORS

Before exploring further, the organisational culture and its influences on healthcare practices, this section provides an overview of the health system in Hong Kong. The public and private healthcare sectors in Hong Kong play crucial but different roles as shown in Figure 2 (Leung & Bacon-Shone, 2006). The primary care sector, being the focus of this thesis, is only a part of the broader health system. The primary care sector and the wider health system are not only influenced by health policies, funding sources and purchasers, but also by outside factors such as cultural, social, political and economic influences on healthcare service access, provision, utilisation and finances in Hong Kong (Chung &Wong, 2018; Food and Health Bureau Hong Kong SAR, 2008; Schoeb, 2016). The dynamic mix of the public and private sectors established health system efficiency, utilising around 5% of HK's GDP to achieve one of the highest life expectancies in the world, at 87.3 years for females and 81.3 years for males (Bloomberg, 2017; Department of Health Hong Kong, 2017).

Figure 2 Overview of the Hong Kong health system and other external influences

Cultural influences on service utilisation (Schoeb, 2016)

Social influences on access to healthcare (Chung &Wong, 2018)



Influence of political stability on sustainability of service provision (Food and Health Bureau Hong Kong SAR, 2008)

Influence of economic stability on sustainability of healthcare finances (Food and Health Bureau Hong Kong SAR, 2008)

*HMOs=health maintenance organisations (Leung & Bacon-Shone, 2006, p.140)

The public sector is funded by tax revenue and guided by the Confucian principle of providing equitable care for the poor, old and chronically ill (Leung & Bacon-Shone, 2006; Tao, 1999). The Food and Health Bureau directs and regulates the resources and policies to provide 90% of inpatient services and 30% of outpatient services in Hong Kong. The Hospital Authority (HA) provides the majority of inpatient services, while the Department of Health (DH) provides preventive services at a 95% subsidised price of HK$50 - HK$80 (GBP£5-8) per attendance (Food and Health Bureau Hong Kong SAR, 2011; Hong Kong Hospital Authority, 2017c; Research Office Legislative Council Secretariat Hong Kong, 2016). The private sector delivers most (70%) of outpatient services in HK at a price of HK$200 - HK$700 (GBP£20-70) per attendance (Hong Kong Medical Association, 2014; Leung & Bacon-Shone, 2006). The private sector is funded by employers and individuals, with the middle and upper classes making greater use of private services (Hong Kong Medical Association, 2014; Leung & Bacon-Shone, 2006). Within the private sector, GPs can be business owners in a solo practice, or profit-sharing partners in medical groups or private hospitals (Hong Kong Medical Association and Havard University, 1998). Hence, the private healthcare services are more flexible than those in the public sector, with patients usually being seen on the same day as the booking and given more freedom to visit their preferred doctors (Food and Health Bureau Hong Kong SAR, 2011).

The Hong Kong health system differs from the UK NHS financially and structurally (Leung & Bacon-Shone, 2006). The NHS, in 2013, utilised 10% of UK GDP to provide 90% of primary and secondary services (Office for National Statistics, 2015). In contrast, the HA & DH utilised 5% of the GDP in Hong Kong to provide 55% of healthcare services in 2011, with 45% of private services funded by employers and

individuals. Unlike the NHS, which is a national organisation, the HA is an independent self-sustainable organisation, being appointed, governed and funded by the HK government to manage all the public hospitals and health institutes in Hong Kong (Food and Health Bureau Hong Kong SAR, 2011; Research Office Legislative Council Secretariat Hong Kong, 2016). Within the HA, GPs and other healthcare workers are employed as salaried employees based on agreed contractual terms and conditions (Hong Kong Hospital Authority, 2018a). Although the public enjoys affordable services from the HA, it has a much longer waiting time than the private sector, and potential access inequality with longer waiting times for patients in deprived than in wealthier areas (Anandaciva & Thompson, 2017; Hong Kong Hospital Authority, 2018f; Leung & Bacon-Shone, 2006). For example, a stable new case is expected to wait for between 24 to 95 weeks to be seen by GPs in the public sector, depending on the level of deprivation of their residential area (Hong Kong Hospital Authority, 2018f).

Another marked difference between the public and private sectors in Hong Kong is a disparity of GP-specialist referral systems. Unlike GPs in the UK, who are gatekeepers and act as "family doctors" to pursue specialist care for patients, such referral is only required in the public sector but remains flexible in the private sector in HK (Lee et al., 2010; UK Department of Health, 2013). As a result, previous literature reports that a less established family doctor tradition in HK drives patients to doctor shop in the private sector, defined as "the changing of doctors without a professional referral in a single illness episode" (Lo et al., 1994, p.371). Patients in HK tend to visit different GPs for the acute or episodic care they need, rather than expecting to build a long-term relationship with the same doctor as in the UK (Mercer et al., 2011). Hence, doctor-shopping behaviour is considered as a barrier for GPs to engage patients in deeper

conversations or needs using SDM (Mercer et al., 2011).

1.7 COMMUNICATION TRAINING WITHIN MEDICAL EDUCATION FOR GPS IN HONG KONG AND THE UK

Table 1 illustrates that the family medicine programme from the Hong Kong College of Family Physicians (HKCFP) offers similar training to the Royal College of General Practitioners (RCGP), building the gatekeeper role of the GPs to communicate about needs, treatment and information with patients (Hong Kong College of Family Physicians, 2017; Royal College of General Practitioners, 2012). Yet, the RCGP, a generalist qualification in the UK, differs in its functions from the family medicine degree, a specialist qualification in Hong Kong (Arya et al., 2017). RCGPs are required to learn skills such as GPs' self-awareness, consultation and communication skills with patients and community health partners as a family doctor in "person-centred" care right from the start of the six-year programme, along with disease diagnosis and management (Royal College of General Practitioners, 2012).

GPs in HK receive education emphasising disease diagnosis and management, leaving only a few modules on communication skills to the mid-late sections of the programme, which also lacks training in actively engaging community health partners, such as social workers (Royal College of General Practitioners, 2011; The Chinese University of Hong Kong, 2017b; The University of Hong Kong, 2017). In Hong Kong, a family medicine degree is not a registration requirement for GPs, but rather an additional degree they might take for their own interest (The Hong Kong College of Family Physicians, 2018b). After graduation, RCGPs are continually monitored and rewarded financially

on their performance in displaying patient-centred skills through the Quality and Outcomes Framework in the NHS (Forbes, Marchand, Doran, & Peckham, 2017; NHS Employers, 2016). In Hong Kong, most graduating GPs join the private sector, with no clear surveillance or governance of their consultation practice. Thus, the President of the Hong Kong College of Family Physicians expressed doubts about GPs in HK, whom, with no training in family medicine, may lack the competence and independence to practice patient-centred care (The South China Morning Post, 2016).

The family medicine degree, which is not mandatory for GPs, is the primary and official way to learn about patient-centredness in consultation skills (The Hong Kong College of Family Physicians, 2018c). To prepare GPs to run their medical business, the family medicine programme also offers knowledge on practice management such as running a pharmacy, managing staff, accounts and finances. However, the RCGP qualification in the UK is recognised as having a higher competency than generalist degrees in medicine, MBBS or MbChB in HK on patient-centred consultation skills (Hong Kong College of Family Physicians, 2014; Royal College of General Practitioners, 2011). Nevertheless, it is observed that the curricula in both HK and the UK do not clearly indicate or assess the specific processes for undertaking clinical decision-making under organisational challenges (Hong Kong College of Family Physicians, 2017; Royal College of General Practitioners, 2012; The Chinese University of Hong Kong, 2017b). Previous studies found asymmetrical GP-patient relationships, high patient loads, and high stress working environments in primary care in Hong Kong, South Korea, Japan, Taiwan, and Mainland China (Hong Kong Medical Association and Havard University, 1998; Pun, Chan, Wang, & Slade, 2018). Medical students from past studies also indicated a need for more culturally sensitive patient-centred skills training (Hong Kong Medical

Association and Havard University, 1998; Pun et al., 2018). The President of the Hong Kong College of Family Physicians pointed out that the personalised role of a family doctor is recognised as important in the early detection and prevention of chronic diseases in Hong Kong (The Hong Kong College of Family Physicians, 2018f).

Table 1 Training of a GP and family medicine specialist in Hong Kong and the UK

Programmes	GP (HK)	Family medicine specialist HKCFP/FHKAM (HK)	RCGP (UK)
Medical School	**6 yrs**	**N/A**	**6 yrs**
Assessment	Clinical exams and placement (clerkship learning) as an attachment in GP and specialist clinics and hospitals		Clinical exams and placement (clerkship learning) as an attachment in GP and specialist clinics and hospitals
Qualification	MBBS or MBChB		MBBS or MBChB
Consultation model	Learn and adopt patient-centred consultation model in Year 5 internship		Learn and adopt patient-centred consultation model in Year 5 internship
Internship	**1 yr** (within 6 years)		**2 yrs** (within 6 years)
Assessment	Rotations in **4** intervals (multiple medical specialities) - Basic clinical skills, communication skills and team work.		Rotations in **6** intervals (multiple medical specialities) - Basic clinical skills, communication skills and teamwork.
Licensing body	**Endpoint-GP registration** (qualify to practise in medicine and surgery) with the Medical Council of Hong Kong		**Midpoint- Full registration** with the General Medical Council
Specialist training (family medicine in HK)	**N/A**	**6 yrs+** Patient care, practice management and professional development: - **Basic training**-hospital-based (24 months) & community-based (24 months) - **Higher training**-supervised independent practice (24 months)	**3 yrs+** Patient care, practice management and professional development: - Hospital-based (18 months) & - GP practice (18 months)
Assessment		Applied Knowledge test (written and clinical exams) - Problem-solving skills - Communication skills - Patient management/ clinical interpretation skills	Applied Knowledge Test (written exams) Clinical Skills Assessment - Professional skills - Communication skills - Practical skills - Workplace-based assessment

		- Workplace-based assessment	
Consultation skills & model		A holistic approach to care, ability to understand and respect patients' values, culture, family beliefs and structure and its impact on illness and health over the life course when applying patient-centred consultation model. Focus more on the evolution of diseases and treating diseases as interrelated phenomena, involving carers, family and community partners.	
Qualification & licensing body		**FHKCFP & FHKAM (FM)** Fellow of the Hong Kong Academy of Medicine (Family medicine discipline)	**MRCGP** Full membership (GP registration) with the General Medical Council (GMC)

(Hong Kong College of Family Physicians, 2017; Hong Kong e-legislation, 2012; Royal College of General Practitioners, 2017; The Chinese University of Hong Kong, 2017a; The University of Hong Kong, 2017; University College London, 2017)

1.8 OPPORTUNITIES TO RECEIVE FAMILY MEDICINE (FM) TRAINING AMONG PUBLIC AND PRIVATE GPS

In Hong Kong, the resources to receive specialist training in family medicine, on-site supervision support, and career opportunities, are all skewed towards public GPs through a Resident Training Programme co-organised by the Hong Kong College of Family Medicine and the Hospital Authority (Hong Kong Hospital Authority, 2018d). For example, selected public GPs are offered a nine-year employment contract, with guaranteed pay and carefully coordinated duties, to give them sufficient time and exposure required for the family medicine training (Hong Kong Hospital Authority, 2018d). To encourage public GPs to train, most of the accredited training centres for family medicine are located within HA hospitals (97%) and clinics (93%), with plenty of accredited FM trainers to coach public GPs (The Hong Kong College of Family Physicians, 2018d, 2018e). Private GPs have limited access to training due to the absence of employment support and insufficient training centres and coaches, with one accreditated hospital with 20 accreditated trainers, and four accreditated clinics with three trainers (The Hong Kong College of Family Physicians, 2018e, 2018d).

As there are limited places in the FM programmes each year, public GPs have a clear advantage over their private counterparts as the majority of board members of the HKCFP are from the HA, who make critical decisions on enrollment, exams and fellowship status approvals (The Hong Kong College of Family Physicians, 2018a). Within limited training centres, private GPs, as independent trainees, have to coordinate, seek approval from multiple departments and secure a coach in order to advance their training. Another financial challenge is that private GPs may lose their jobs in the private clinic if they decide to start training in an accredited hospital. After six years

and qualification in FM, a specialist GP in the private market is still being reimbursed at a similar rate to a GP without such accreditation (Hong Kong Medical Association, 2014). Hence, the incentive to enter for family medicine is not high among private GPs. Over and above medical training, there may be other organisational or system influences unique to the HK health system or national policies. This doctoral research seeks to explore some of these issues and how they may impact on GPs' subsequent approach to healthcare communication and practice.

1.9 CONCEPTUALISING ORGANISATIONAL CULTURE

Having explained the background of the Hong Kong health system, medical training mechanism and consultation models in primary care, this section will discuss the nature of organisational culture in primary care. Organisational culture has been highlighted as a factor influencing GPs' communication behaviour within the NHS (Davies, 2000; Department of Health, 2012). Schein (2010, p.18) defined organisational culture as:

> a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel about those problems.

According to Schein (2010), there are different levels of culture which influence both the explicit (visible) behaviour and the implicit (non-visible) cognitive, emotional and symbolic experience of the members of an organisation. Competing definitions of organisational culture (as illustrated in Appendix 2) are adopted by social scientists and anthropologists, but it appears consistent with Schein's definition that organisational culture is specific behaviour or beliefs that are shared among individuals within the same organisation (Bellot, 2011).

In the NHS, West (2013) emphasised that organisational culture can be understood as a manifestation of shared values, such as person-centred care, influencing the way healthcare workers provide services for patients. Berwick (2013) stated that healthcare workers should be committed to a culture of transparent, open and empowering healthcare communication, involving patients and their carers at various decision-making levels. For example, the involvement of patients should not be limited to when they are with physicians in consultations, but also in the design of care pathways and regulations at the system level (Berwick, 2013). In response to the Francis (2013) report on the scandal causing the death of 400-1200 patients from 2005-2009 in Mid-Staffordshire Trust hospitals, Berwick (2013) pointed out that positive cultures (transparent, empowering, safety cultures) were not prevalent nor embraced by some of the NHS workers. Francis (2013) also highlighted that an organisational culture of negligence among healthcare staff was one of the underlying reasons in providing poor quality and unsafe care to patients. Both reports echoed how organisational culture is a crucial determinant of physicians' consultation behaviours and motivation to improve clinical outcomes and patient experiences, as documented across other NHS reports: "The NHS Plan" (2001), the Bristol Inquiry (2001), and the "Liberating the NHS: equity and excellence report" (2010) (Department of Health, 2010; Hinks, 2000; Kennedy, 2001).

1.9.1 Organisational culture as a field of study in the health system context

In the United States and Japan, studies have examined how dimensions of organisational culture among healthcare workers, such as team collaboration, information sharing and quality improvement orientation, influence common practices such as safe antibiotic

use and handwashing practices to prevent nosocomial infection (Larson, Early, Cloonan, Sugrue, & Parides, 2000; Ukawa, Tanaka, Morishima, & Imanaka, 2015). The 2017 survey of NHS patients in the UK, indicated that the SDM policy advocated in 2012 led to an increased involvement of patients in clinical decision-making, and better treatment adherence and quality of care (NHS England, 2018a; Slade, 2017). Based on this understanding, Davies (2000) outlined certain aspects of the organisational culture which have been studied within the NHS, including NHS staff perceptions of patterns of communication behaviour, attitudes to innovative practices, competitiveness in the organisation, sense of teamwork, diversity of practices and focus on process or outcome. These are important aspects of organisational culture to explore in the context of ability to improve healthcare quality (Davies, 2000).

Past NHS reports have tried to improve the way GPs and patients communicate and advocated certain communication aspects of the organisational culture through specific policy goals. For example, policy goals such as "transform NHS culture by putting patients in control" by empowering patients to engage in their care and treatment decisions (UK Department of Health, 2010, p.21) and "shared values in which the patient is the priority of everything done" (Francis, 2013, p.1357) were advocated to reform and upgrade the healthcare systems (Hinks, 2000; Kennedy, 2001). The NHS substantiated organisational culture as a critical factor to drive a more patient-centred consultation style in clinical practice in 2012 (Department of Health, 2012). A continuous improvement in the use of SDM can be seen across inpatient surveys from 2012 to 2017, with patients reporting increased satisfaction in building closer relationships with GPs (83% in 2012, 85% in 2017) and being given more information and choices in treatment decision-making (67.2% in 2012 , 68% in 2017) (NHS England,

2018).

In Hong Kong, healthcare cultures regarding practising SDM have not been addressed or explored in health policy. There is also a lack of precise definition and assessment of organisational culture in healthcare across Hong Kong in its linkage with consultation styles (Hong Kong Hospital Authority, 2013). Instead, the Hong Kong Hospital Authority strongly emphasises a "safety culture" as one of its strategies to reduce patient safety incidents and maintain quality standards across public hospitals (Hong Kong Hospital Authority, 2015b).Within the Hospital Authority, there are substantial training and education initiatives on safety, learning, and reporting culture. The quarterly magazine "Quality Times" shares good practice for a safety, reporting and learning culture; the Advanced Medical Incident Reporting System (AIRS) and the Hospital Accreditation Programme have been developed to build and foster a safety culture, and a "Quality and Assessment" Division was established to run and manage these initiatives.

1.9.2 Organisational culture and its link to consultation style in healthcare research

So far, few healthcare studies from the UK, the United States, Japan or China have examined the role and impact of organisational culture on clinical practices (Dixon-Woods et al., 2014; Jacobs et al., 2013; Larson et al., 2000; Ukawa et al., 2015; Zhou, Bundorf, LeChang, Huang, & Xue, 2011). The few studies that have been conducted include examinations of the level of commitment of clinical teams to safety practice (Larson et al., 2000); a cost and efficiency-conscious management culture (Jacobs et al., 2013; Zhou et al., 2011); a hospital's information-sharing culture and physicians' adherence to guidelines leading to prescription decisions (Ukawa et al., 2015); and an

empowering and supporting leadership style to perform patient care (Dixon-Woods et al., 2014), all linked to more transparent communication with patients and improved clinical performance. Most studies were quantitative in nature, using patient, staff or organisational culture surveys to measure the link between staff's perception of organisational culture and patient-centred consultation practice represented by hospital indicators such as patients' satisfaction level, staff engagement level or length of stay (Dixon-Woods et al., 2014; Jacobs et al., 2013; Larson et al., 2000; Ukawa et al., 2015; Zhou et al., 2011). Organisational researchers have favoured quantitative approaches for their ease of implementation, measurement, analysis, and generalisation across institutions among different staff subgroups (Jung et al., 2009; Mannion, 2008; Scott et al., 2003). Studies from Dixon-Woods et al. (2014); Jacobs et al. (2013); Larson et al. (2000); Ukawa et al. (2015) & Zhou et al. (2011) provided useful and succinct information on the prevailing dimensions and the associated patterns between organisational culture and GPs' clinical practice. However, the organisational culture-practice link is weak due to the methodological weaknesses of using cross-sectional designs to explore the process of how organisational culture impacts on healthcare outcomes.

Currently, there is a broad range of quantitative and qualitative instruments to measure organisational culture, but most studies have chosen a survey approach to examine a limited range of culture themes based on a single theoretical framework and its link to specific outcomes in clinical performance (Jung et al., 2009; Mannion, 2008). However, Mannion (2008, p.137) states qualitative methods might be more suitable to "understand, shape and assess different facets of organisational life". Qualitative measures such as ethnography, storytelling and interviews have been used to explore the values and

beliefs influencing individuals' behaviour and to provide an explanation of how organisational culture drives different behaviours in various clinical contexts (Jung et al., 2009). Thus, the qualitative approach could be useful for identifying and characterising the complex and dynamic linkages between culture, GP-patient interaction and patient experience in primary care in Hong Kong. Hence, this study will adopt a qualitative design to explore GPs' perspectives on how organisational culture influences their consultation styles in Hong Kong.

1.9.3 Applying national versus organisational culture theories in healthcare communication studies

According to Hofstede (1990, 2001), organisational culture impacts on people more in the adult years through workplaces or schools, while national culture exerts an influence and shapes an individual's perception and behaviours through family in early years. Hofstede established six dimensions (Table 2) to explain national cultural differences: power distribution in society; society's tolerance for ambiguous situations; individualism and collectivism; the distribution of feminine or masculine[3] values; society's orientation in terms of perseverance or adaptation to changes and lastly the extent to which society indulges or restrains human desire to enjoy life (Hofstede, 2001, 2011). Table 3 illustrates how Eastern societal values differ from those of the Western world, the former characterised by a stronger hierarchical and unequal distribution of power; lower levels of individualism in which people feel that society has more responsibility to take care of them; a more 'masculine' society emphasising achievement, assertiveness, and material rewards for success; a lower

[3] The author does not agree with the use of masculine and feminine to stereotype this particular trait which has also been criticized as sexist and Eurocentric in previous papers (Gilligan, 1982; Witte, 2012). However the original terms are used here to reflect the words of Hofstede's multidimensional theory (Hofstede, 2011). Otherwise, assertive/ submissive could be used instead.

level of anxiety towards uncertainty or ambiguity, and a lower enjoyment level with stricter social norms in enjoying life (Hofstede, Hofstede, & Minkov, 2010).

Table 2 Exploring national culture: the six domains of Hofstede's cultural dimensions theory

Key national dimensions	Description
Power distance (PDI)	The extent to which the less powerful members of organisations and institutions accept and expect that power is distributed unequally • Large power distance - subordinates expect to be told what to do • Small power distance - subordinates expect to be consulted
Uncertainty Avoidance (UAI)	The extent a culture programmes its members to feel either uncomfortable or comfortable in unstructured situations. • Strong uncertainty avoidance - the need for clarity and structure • Weak uncertainty avoidance - comfortable with chaos and ambiguity
Individualism/ collectivism (IDV)	The degree to which people in a society are integrated into groups. • Individualistic - " I" consciousness • Collectivism -"We" –consciousness
Masculinity/ femininity (MAS)	The distribution of values between the genders which is another fundamental issue for any society, to which a range of solutions can be found • Masculinity - maximum emotional and social role differentiation between the genders • Femininity - minimum emotional and social role differentiation between the genders
Long-term /short-term orientation (LTO)	Long-term - fostering of virtues oriented towards future • Traditions are adaptable to changed circumstances Short-term - fostering of virtues oriented towards the past or present • Traditions are sacrosanct
Indulgence / Restraint (IND)	• Indulgence - a society that allows relatively free gratification of basic and natural human desires related to enjoying life and having fun. • Restraint - a society that controls gratification of needs and regulates it using strict social norms.

(Hofstede, 2011, pp. 9-16)

Table 3 Disparity between Western and Eastern countries from the six dimensions of Hofstede's (national) cultural dimension model

Health system-countries	GNI (USD) 2016	HDI (2015)	PDI (power distribution)	IDV (individuality)	MAS (toughness)	UAI (facing uncertainty)	LTO (facing changes)	INR (social norms)
Included studies from the review (Western perspectives)								
Canada	43420	Very high 0.920	39	80	52	48	36	68
Great Britain	42100	Very high 0.909	35	89	66	35	51	69
Italy	38430	Very high 0.887	50	76	70	75	61	30
Netherlands	50710	Very high 0.924	38	80	14	53	67	68
Portugal	30000	Very high 0.843	63	27	31	104	28	33
U.S.A.	58700	Very high 0.920	40	91	62	46	26	68
Eastern countries selected for comparison								
China	15500	High 0.738	80	20	66	30	87	24
Malaysia	26960	High 0.789	104	26	50	36	41	57
Hong Kong	60630	Very high 0.917	68	25	57	29	61	17
India	6500	Medium 0.624	77	48	56	40	51	26
Japan	42790	Very high 0.903	54	46	95	92	88	42
Singapore	85190	Very high 0.925	74	20	48	8	72	46
Vietnam	6170	Medium 0.683	70	20	40	30	57	35

(Hofstede et al., 2010; United Nations, 2015)

GNI: Gross national income
HDI: Human development index
PDI: Power distance: a higher score indicates the higher unequal distribution of power
IDV: Individualism/collectivism: a higher score indicates a more individualistic culture
MAS: Masculinity/femininity: a higher score indicates a tougher and more aggressive culture
UAI: Uncertainty avoidance: a higher score indicates higher anxiety in uncertainties
LTO: Long-term versus short-term orientation: a higher score indicates greater future orientation and more accepting of changes
INR: Indulgence/restraint: a higher score indicates looser social norms on enjoying life

1.9.4 Applying national cultural theories across business and healthcare contexts

Three recent studies in Europe and China applied Hofstede's (2011) cultural dimensions theory to explore differences in decision-making styles among employees from different cultural backgrounds within multinational corporations (Dabić et al., 2015; Khairullah & Khairullah, 2013; Podrug, 2011). These studies found that, in contrast with their Eastern peers, Western managers who were making complex decisions were able to tolerate more risk and diversity of opinions, worked under a flatter organisational hierarchy and tended to share power with colleagues by using a democratic style to make corporate decisions. In contrast, Eastern managers tended to be more authoritative in making corporate decisions, in which the subordinates rarely challenged their decisions, had a lower tolerance of risk and higher compliance with more collective decisions (Dabić et al., 2015; Khairullah & Khairullah, 2013; Podrug, 2011).

In organisation and management research fields, a number of studies from the United States, Eastern Europe, Australia, New Zealand, Japan, Hong Kong and Taiwan have confirmed the influence of national culture on the choice of decision-making style among business managers in the decisional process: problem recognition, information search, construction of alternatives and implementation (Ali, 1989; Dabić et al., 2015; Gupta, 2012; Mann et al., 1998). Compared to Charles et al.'s (1999) healthcare decision-making model, a similar pattern of power-sharing with subordinates was found in the business context. Firstly, the manager-dominant autocratic style resembling the paternalistic style with managers having full control over business decisions. Another example is the democratic style which resembles SDM in ways that allowed managers and subordinates to participate and share equal power in the decision-making process. Lastly, the subordinate-dominant laissez-faire style resembling the informed

consultation style in which managers delegated the decision-making power to their subordinates (Daft, 2008; Muna, 1980; Ejimabo, 2015; Shepherd, Williams, & Patzelt, 2015; Verma, Bhat, Rangnekar, & Barua, 2015).

1.9.5 Hofstedes's cultural dimension theory influencing GPs' consultation style and patient experience

Overall, Hofstede's cultural dimensions theory (Table 2) has also contributed extensively to exploring the impact of various aspects of national cultural values and beliefs on communication styles and behaviours in healthcare settings (Hofstede, 2001). In addition, Hofstede's cultural dimensions have been applied to explain how variations in cultural values impact on infection control behaviours (Borg, 2014), medication use (Deschepper et al., 2008), medical conversational style (Verma, Griffin, Dacre, & Elder, 2016), job burnout (Chiu, 1999), and clinical communication between GPs and patients (Meeuwesen, van den Brink-Muinen, & Hofstede, 2009). Meeuwesen, van den Brink-Muinen & Hofstede (2009) investigated differences in consultation styles among GPs from 10 different European countries using the first four cultural dimensions in Table 2. Meeuwesen et al.'s (2009) findings concluded that GPs with a higher power distance were less likely to involve patients in treatment decisions; a higher level of uncertainty avoidance resulted in less attention (eye contact) in building rapport with patients; a higher level of 'masculinity' facilitated biomedical information exchange and a higher level of individuality brought more exchange of psychosocial information. Nevertheless, Hofstede's cultural dimension theory has still not been used in the context of medical decision-making. Verma et al. (2016) used the Hofstede (2001, 2011) theory as an analytical framework to explain national cultural differences and their impact on conversational styles in building rapport, and exploring and addressing patients'

concerns among medical students from the UK, Malaysia, Egypt, Pakistan, India, Indonesia and Myanmar during the Membership of the Royal Colleges of Physicians (MRCP) examination. Compared to more equal societies such as the UK (PDI = 35), medical students from Malaysia (PD I= 104) and Arab countries (PDI = 80), where there tends to be a higher level of power inequality in society, tended to control the consultation by interrupting or ignoring patients' expressed concerns (Verma et al., 2016). Similar to Meeuwesen et al.'s (2009) findings, students from higher uncertainty avoidance countries and more masculine countries paid less attention to building rapport and used a more biomedical language in consultations. On the whole, Verma et al.'s (2016) study concluded that using the Hofstede cultural dimension theory as an analytical framework could facilitate a more in-depth exploration of different aspects of culture that influence conversational patterns and styles in GP-patient interactions (Hofstede, 2011; Verma et al., 2016).

Despite the fact that cross-country studies of 28 European countries (Borg, 2014; Deschepper et al., 2008; Meeuwesen et al., 2009) and Malawi (Hamre & Thesis, 2007) have highlighted that national culture may have a bearing on GPs' consultation behaviour, the Hofstede cultural dimensions model alone may not be sufficient in all cases. More fundamentally, it may not explain differences between healthcare practices within the same country, because organisational cultures will differ. For example, organisational values and practices among GPs may vary according to differences in the academic and workplace environments within which they were educated and trained.

Existing organisational culture theories such as the Competing Values Framework (CVF) or the Organisational Culture Inventory (OCI) focus on measuring the association between organisational culture and team effectiveness or quality improvement in healthcare settings rather than its influence on GP-patient communication style, categorising the findings into narrow types of organisational culture (Helfrich, Li, Mohr, Meterko, & Sales, 2007; Jacobs et al., 2013; Rovithis et al., 2017). There is a lack of theories to explain the link between organisational culture and decision-making between GPs and patients in a healthcare setting.

1.9.6 Applying organisational cultural theories across business and healthcare contexts

In view of the lack of theories to explain the influence of organisational culture on GP-patient interactions, Hofstede, Neuijen, Ohayv, & Sanders, (1990) developed another construct specifically on "organisational culture" with six dimensions to explain how corporate culture influences employees' practices as illustrated in Table 4. The six dimensions emphasise the influences of organisational structure (open vs closed systems), organisational control (tight vs loose control) and organisational strategy (means vs goal; work vs employee; professional vs local and pragmatic vs normative-oriented). The Hofstede's multi-focus model of organisational culture is developed from research with 20 organisations from Denmark and the Netherlands, which share a similar European culture. However, the construct has been applied in a limited way in the healthcare literature, with only a few studies on healthcare workers' job burnout (Farzianpour, Abbasi, Foruoshani, & Pooyan, 2016) and their perception of information or knowledge systems (Ciganke, Mao, &Srite, 2011; Tabibi, Nasiripour, Kazemzadeh, &Ebrahimi, 2015) in a hospital setting.

Table 4 Hofstede's multi-focus model of organisational culture

Dimension	Key focus
Means-oriented vs goal-oriented	This dimension refers to the effectiveness of the organisation in targeting the processes (means) versus outcomes (goals)
Normative vs pragmatic driven	Management orientation towards the idea that ethics and honesty matter most (normative) versus meeting the customer's requirements (pragmatic)
Tight vs loose control	This dimension refers to the amount of internal structuring, control, and discipline within the organisation
Local vs professional	This dimension refers to how employees identify themselves with the boss/ unit (local) versus their profession (professional) as a whole.
Open vs closed system	This dimension refers to the accessibility of an organisation such as openly welcoming new members of the organisation or not
Employee vs work-oriented	This dimension refers to the management philosophy regarding the welfare of the employees

(Hofstede, Neuijen, Ohayv, & Sanders, 1990; Hofstede, 2018)

1.9.7 Aspects of organisational culture influencing policy change and healthcare workers' experience

Compared to a closed organisational structure (Table 4), two previous studies have highlighted that healthcare workers found an open organisational structure more communicative, and reported higher acceptance of policy changes such as the introduction of knowledge management or information processing systems (Ciganke et al., 2011; Tabibi et al., 2015). It was found that hospital leaders had more presence and influence on the attitude and behaviour of frontline staff by adopting an engaging communication process (Callen, Braithwaite, & Westbrook, 2007; Ciganke et al., 2011; Tabibi et al., 2015). Open organisations were also more aware of existing cultures such as teamwork or quality assurance, and supported these cultures through the policy implementation process. Hence, healthcare workers were more satisfied with the policy changes and found the new systems more useful and adaptable within their existing practices (Callen et al., 2007; Ciganke et al., 2011; Tabibi et al., 2015).

On the other hand, healthcare workers under the influence of a process-oriented rather than result-oriented (means-oriented) culture showed a more conservative attitude towards innovation or its associated risks (Ciganke et al., 2011; Tabibi et al., 2015). Healthcare workers also focused more on the compliance of following each step in existing guidelines (Tabibi et al., 2015). Hence, within a process-oriented organisation, healthcare workers perceived policy change, such as a new knowledge management system, as more disruptive and less adaptive towards their existing practices.

1.9.8 The relationship between national and organisational culture and communication in previous studies

Some studies have suggested that there is a congruence between national culture and organisational culture (Bussey, 1999; Goelzer, 2003; Gulev, 2009; Nelson & Gopalan, 2003). For instance, the equality of decision-making power between managers and subordinates was linked to fulfilment-, project-, person- and role-oriented values, and this congruence can facilitate teamwork, compliance with leadership and corporate strategy among successful companies (Gulev, 2009). Hofstede (2001) suggests that national cultures of high power distance complemented with high uncertainty avoidance lead to an autocratic (manager-centred) decision-making style within a rigid hierarchical company structure. Hofstede's (2001) IBM study elaborated the ways in which top-tier management's national cultures (e.g. high versus low power distance) shaped elements of organisational cultures (autocratic vs democratic decision-making styles) across organisations. Taking a different perspective, Singh & Parashar (2005) argued that an opposing relationship between the organisation and national culture could improve organisational communication. For example, open-plan offices

challenged the Western individualistic and privacy-loving culture but favoured open communication and teamwork (Gulev, 2009). In the same way, an Indian telecommunications corporation advocated a punctual working culture which challenged the relaxed societal norm towards punctuality but facilitated staff communication and commitment within the organisation. Some studies from Canada, Korea and Iran (Dastmalchian, Lee, & Ng, 2000; Nazarian, Irani, & Ali, 2013) found a specific linkage between national culture and aspects of organisational culture. For instance, Nazarian et al.'s (2013) study from Iran suggested that the national culture of high uncertainty avoidance was linked to a more market- and customer-driven organisational culture, whereas a high power disparity between managers and subordinates combined with individualism cultivated a tribe-oriented corporate environment. Lastly, Dastmalchian et al.'s (2000) study comparing South Korea and Canada argued that organisational climate and leadership style were significantly associated with national culture, but contextual factors such as company size, employees' level of education and position can moderate this linkage. Previous healthcare studies (Borg, 2014; Deschepper et al., 2008; Meeuwesen et al., 2009; Verma et al., 2016) have also demonstrated how aspects of national culture including power distance, uncertainty avoidance and masculinity level impact upon healthcare communications. However, this review focuses on the unexplored influences between organisational culture and GP-patient communication.

1.10 CONCLUSION

Facing the burden of an ageing society in Hong Kong, the HA made engaging patients in treatment plans using SDM to promote partnership and service improvement one of

its crucial goals in the most recent 2017-2022 strategic plan (Hong Kong Hospital Authority, 2018e). A considerable body of healthcare literature from the UK, the United States and China has grown around the link between how GPs involved and shared information with patients to make treatment decisions, and improvements in communication and clinical outcomes (Dixon-Woods et al., 2014; Larson et al., 2000; Ukawa et al., 2015; Zhou et al., 2011). However, there is a lack of evidence to determine how organisational culture drives different consultation styles and improves decisional communication in Asian countries. The World Health Organisation (WHO) is concerned by an accelerating rate of chronic diseases in eastern developing countries such as China and India. It is projected that, by 2025, 60% of all deaths will occur in China and India (World Health Organization, 2018). Patients with multi-morbidities will pose a financial burden and lead to the greater complexity of care to the health system, as they require high rates of primary and specialist consultations (Moffat & Mercer, 2015). These are necessary to review patients' large number of medications regularly in order to control their conditions and prevent drug-illness and drug-drug adverse complications (Moffat & Mercer, 2015). Previous studies have found that communication about perspectives, illness experiences and preferences between patients with chronic conditions and their GPs boosts treatment adherence and rapport in primary care settings (Garg et al., 2016; Street, Makoul, Arora, & Epstein, 2009). As a former British colony and an international hub between China and other parts of the world, the interaction between the Eastern and Western world may influence aspects of organisational culture unique to the Hong Kong healthcare context. It is hard to extrapolate findings from Western countries to Eastern settings such as Hong Kong as there are different system structure and functions, levels of development of SDM policies and practices within the health system, different socioeconomic determinants

of chronic diseases, as well as different cultural expectations from the public regarding communicating and making treatment decisions (Leung & Bacon-Shone, 2006). Furthermore, GPs who were trained and practise in different countries or eras (the British colonial era versus the China special administrative era) may have different consultation styles that organisational culture may impact upon to various degrees. Thus, it is important to explore if a GP- or patient-centred style is more acceptable and feasible among GPs in the Hong Kong primary care setting and how GPs' consultation style might be influenced by aspects of national and organisational culture in the decision-making process.

CHAPTER 2 THE LINK BETWEEN ORGANISATIONAL CULTURE AND GPS' CONSULTATION STYLE - A SYSTEMATIC REVIEW

Review title - What are GPs' perceptions of the influence of organisational culture on their consultation style with patients with chronic conditions?

2.1 Literature review background

This chapter discusses the aim, methodology, quality appraisal, analytical approach and findings of the thematic synthesis. The final part of the review highlights gaps in current knowledge and how the current study aims to address them.

2.2 Aim of the literature review

Although GPs' communication style has attracted considerable attention for its link to patient experience across medical literature from the UK, the United States, Australia, Spain, Germany, Italy, and France, its relationship with the organisational culture has not been thoroughly explored (Clever, Jin, Levinson, & Meltzer, 2008; Kelley, Kraft-Todd, Schapira, Kossowsky & Riess, 2014). This review adopts a qualitative meta-synthesis approach as past reviews of NHS and Hong Kong Hospital Authority reports (Department of Health, 2010; Francis, 2013; Hinks, 2000; Hong Kong Hospital Authority, 2013; Kennedy, 2001) have indicated the need to explore deeper into the role of organisational culture and how it drives GPs and patients' involvement in clinical decisions to improve service quality and outcomes. There is also a lack of a comprehensive review of qualitative studies from primary care contexts synthesising the influence of organisational culture on GPs' communication style (Jung et al., 2009; Mannion, 2008; Scoggins, Tiessen, Ling & Rabinovich, 2007). Therefore, a qualitative methodology is chosen as the most appropriate approach to explore the experience of how GPs communicate with patients during primary care consultation.

2.3 Review question

This review aims to synthesise qualitative studies that have explored how GPs' communication styles help patients manage their chronic conditions and how organisational culture influences GPs' approach to healthcare communication. The review question is: **"**What are primary care GPs' perceptions of the influence of organisational culture on their consultation style with patients with chronic conditions?" This review includes only qualitative studies as the review question, which focuses on GPs' perception of organisational culture on healthcare communication, is more appropriately answered using qualitative methods.

2.4 Methodology

2.4.1 The analytic approach of this review

Meta-synthesis provides a way to preserve the original experiences of the GPs in the included studies and contextualises findings to inform understandings of the research topic (Barnett-Page & Thomas, 2009)**.** Among various approaches to meta-synthesis**,** thematic synthesis was chosen to analyse a range of studies related to GPs' perspectives or experiences in primary care, and this approach has been used in several other reviews (Dewhurst, Peters, Devereux-Fitzgerald, & Hart, 2017; Egerton, Diamond, Buchbinder, Bennell, & Slade, 2016; Sirdifield et al., 2013). The flexibility of thematic analysis allows the researcher to integrate GPs' experiences across studies with various population characteristics, methods and contexts to develop a comprehensive view on the topic (Dewhurst et al., 2017; Harden, 2004; Morton, Tong, Howard, Snelling, &Webster, 2010). It also helps to deepen understanding of the research topic by comparing and interpreting codes or themes from primary studies to achieve a higher level of analytical abstraction of the themes (Dewhurst et al., 2017; Harden, 2004;

Morton et al., 2010).

2.4.2 Search terms

MesH term and keywords were developed and used to search the topics as follows (Appendix 3):

- Population: 'general practitioner' and related terms, 'family physician' and related terms.
- Exposure: organisational culture, organisational norms, organisational values, organisational spirit, organisational beliefs, organisational policy, clinical consultation, clinical decision-making, patient-doctor communication.
- Outcome: consultation styles, 'paternalistic model' and related terms, 'shared decision-making' and related terms, 'informed choice model' and related terms.

2.4.3 Databases

Four databases exploring general and specialist healthcare practice, behavioural sciences, medication and disease-related information (Medline, CINAHL, Embase, and PsycINFO) were used in the online search conducted in October 2016. Keywords and medical subject headings (MeSH) terms were searched using boolean operators and limits. A detailed search strategy for Medline is shown in Appendix 3.

2.4.4 Screening process

Abstracts and titles were screened according to the inclusion and exclusion criteria (Table 5). The full-text versions of the relevant studies were retrieved and inspected for eligibility to be included in the review. Manual searches were conducted on recent editions of journals related to the topic, as well as the reference lists of the included

studies.

Table 5 Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
1. Papers related to chronic non-communicable disease consultation in the adult population in primary care settings	1. Papers not related to chronic non-communicable disease consultation will be excluded. 2. Papers related to a non-adult population will be excluded 3. Papers exploring non-primary outpatient settings (such as specialist in-patient settings, residential settings or non-in person consultations) will be excluded
2. Papers focusing on GPs' experience in GP-patient interactions (perceptions of, attitudes towards, facilitators and barriers to different consultation approaches)	4. Papers related to patients' or other healthcare professionals' experiences will be excluded
3. Papers were written in the English Language	5. Papers not written in English
4. Papers examining the influence of organisational culture or policy on GPs' consultation practice	6. Papers exploring other influences (e.g. demographic factors such as race or gender, medical training development or evaluation) but not organisational culture or policy on consultation practice will be excluded
5. Qualitative or mixed method studies 6. Approaches that are based on a named qualitative approach with extractable findings and consistent with the generation of themes, such as thematic, IPA, hermeneutic or narrative analysis 7. Basic evidence provided, quotes need to be included as evidence of thematic structure	7. Papers using non-qualitative approaches (purely quantitative data collection or analysis) and systematic reviews will be excluded 8. Qualitative or mixed method studies which do not have a primarily content-based approach, e.g. discourse analysis (unless the study looked beyond the pragmatic use of languages) or lacking a named qualitative approach supported by data or key findings, e.g. studies without theme generation will be excluded
8. Empirical studies reported with primary findings using qualitative methods: thematic analysis and grounded theory which include generation of themes.	9. Non-empirical studies will be excluded. Editorials and any other extant reviews will be excluded.

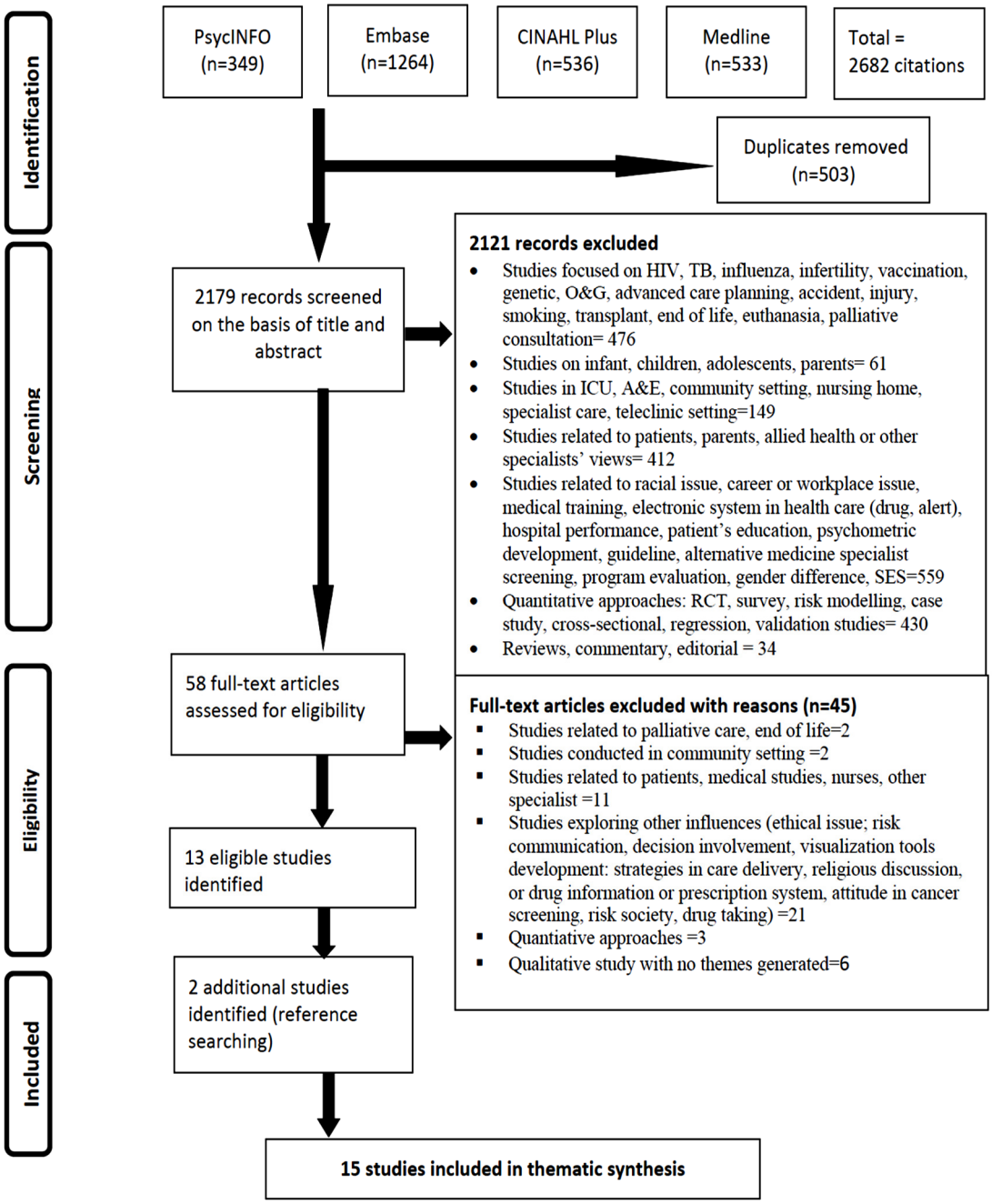
2.4.5 Data extraction

A standardised template was used to facilitate data extraction in a systematic manner within and across the included studies to maximise the explanatory value of each study in the thematic analysis process (Pearson, 2014). The study characteristics in the "results" or "findings" sections from included studies were recorded and entered into a database. An adapted version of this template is shown in Appendix 4.

2.5 Description of included studies

The search retrieved 2179 citations, 58 of which met the selection criteria after screening the title and abstract. Of these, 45 studies were excluded because they were from a non-primary healthcare setting, or they were quantitative studies, leaving 13 articles. Two additional studies were identified by searching the reference lists of the 13 included articles (Figure 3). There was no date restriction to allow a more in-depth exploration of the research topic. All of the 15 included studies were published in English between 1999 and 2016 and were based in Belgium, Canada, the United States, the United Kingdom, Portugal, Italy and the Netherlands.

Figure 3 PRISMA flowchart of the study identification process



Mannion (2008) researched various dimensions of organisational culture (see definition of organisational culture in Section 1.9, para 1) in the healthcare context of the United Kingdom as listed in Figure 4. Some direct relevant dimensions of organisational culture extracted from Mannion's (2008) findings for this review on healthcare communication are: communication pattern; communication process; risk tolerance in

communication; perceived identity; attitude towards change; peer support or teamwork across boundaries; the degree of involvement, power, control, responsibility, resistance and challenges of GPs in the decision-making process (Figure 4). Of the 15 studies, one explored the culture of GPs' perceived efficacy in the communication process shaped by interaction and verbal responses from patients (Sousa, 2007), two explored the culture of openness and degree of control in the communication process to establish how GPs' verbal discourses influence patient autonomy and collaborative decision-making (McMullen, 2012; Robins et al., 2011), and another two explored how the culture of perceived identity, degree of involvement, responsibility and control in the communication process facilitated different types or styles of conversational narratives and how these in turn influence treatment decision-making (Karasz et al., 2012; VanRoy, Vanheule, & Deveugele, 2013). A further two studies explored the culture of GPs' perceived identity, perceived medical training in patient-centred consultation styles and degree of peer support in treatment communication and decision-making (Gray, 2011; Lipman, 2004); four explored the culture of attitude and resistance towards main SDM elements such as patient involvement or information exchange (Elwyn, Edwards, Gwyn, & Grol, 1999; Saba et al., 2006; Schuling, Gebben, Veehof, & Haaijer-Ruskamp, 2012; Stevenson, 2003); and the remaining four explored the perceived degree of control and related facilitators and barriers in GPs' treatment communication process (Luymes et al., 2016; Talen, Grampp, Tucker, & Schultz, 2008; Tentler, Silberman, Paterniti, Kravitz, & Epstein, 2008; Vegni, Visioli, & Moja, 2005) Among the various consultation styles, many of the included studies focused on shared decision-making or a mutual communication style. Therefore, the findings and discussion section of the papers concentrated more on SDM rather than paternalistic or informed styles of communication (Table 6).

Figure 4 Dimensions of organisational culture observed in the UK NHS

Absence of bureaucracy	Management support
A bias for action	Management style
Action orientation	Motivational process
Autonomy and entrepreneurship	Market and customer orientation
Attitude towards change	Organizational clarity
A shared sense of purpose	Organization integration
Clarity of direction	Organizational vitality
Control	Openness in communication and supervision
Conflict tolerance	Organization of work
Communication patterns	Organizational reach
Compensation	Performance orientation
Closeness to customer	Personal freedom
Conflict	Productivity through people
Communication process	Performance goals
Control process	People integrated with technology
Confrontation	Performance facilitation
Conflict resolution	Policies and procedures
Commitment	Peer support
Concern for people	Peer team building
Communication flow	Peer goal emphasis
Co-ordination	Peer work facilitation
Conflict resolution	Performance clarity
Compensation	Performance emphasis
Direction	Risk tolerance
Decision-making	Reward system
Decentralized authority	Responsibility
Delegation	Reward
Decision-making practices	Risk
Decision-making process	Rituals to support values
Excitement, pride and esprit de corps	Rewards and punishments
Empowering people	Social relationships
Emphasis on people	Strong value systems
Encouragement of individual initiative	Stick to the knitting
Goal integration	Simple organization structure
Group functioning	Structure
Goal-setting process	Support
Human resource development (organisational focus)	Standards
	Supportive climate
Human resource development (individual focus)	Strategic organization focus
Influence and control	Standards and values
Integration	Supervisory support
Individual initiative	Supervisory team building
Integration	Supervisory goal emphasis
Identity (degree)	Supervisory work facilitation
Identity (feeling)	Satisfaction
Interaction process	Task support
Job involvement	Task innovation
Job challenge	Top management contact
Job reward	Team work across boundaries
Job clarity	Training
Leadership process	Teamwork
Leader-subordinate interaction	Warmth

(Mannion, 2008, p. 20)

Table 6 Characteristics of included studies

	Study (Year)	Country	Aim	Participant characteristics GP=General practitioner FM= Family GP	Data collection	Paradigm & data analysis	Dimensions of organisational culture that emerged as themes in the analysis stage	CASP Quality rating (out of 24)	SQRQ reporting guideline (out of 21)
1	Elwyn, Edwards, Gwyn, & Grol (1999)	UK	To explore the views of general practice registrars about involving patients in decisions and to assess the feasibility of using the shared decision-making model using simulated general practice consultations	N=39, GP registrar vocational training scheme Age: Not stated Gender: Not stated	N= 4 focus groups	Constructionist, thematic analysis	• GPs' perceived professional role in consultations • GPs' perception of the system facilitators and barriers to applying SDM in consultations	14	17
2	Gray (2011)	US	To explore self-perceived GP roles/identities in primary care GPs of three age groups, in their 30s, 40s and 50s	N=14, FM Age: 29-60 (mean=45) Gender: 7 male, 7 female	N=10 in-person N=4 telephone interviews (structured)	Not stated, appears to be phenomenology, rhetoric, thematic analysis	• GPs' perceived professional role and patient-centeredness of discussion in consultations • GPs' perceptions of generational differences in training, the degree of control and responsibility in treatment decisions related to the training received by older and younger GPs	20	17
3	Karasz et al. (2012)	UK, US, NL	To understand conversational influences on GP decision making about treatment for depression	N=30, GP US=12, UK=10, Netherlands=8 Age: Not stated Gender: Not stated	N= 30 interview transcripts selected from 4 datasets	Not stated, appears to be constructionist, sequence & narrative analysis	• GPs' perceived concordance of symptom expression from patients and degree of motivation and responsibility to offer advice, options and medications	17	18

4	Lipman et al. (2004)	UK	To explore how GPs with an active interest in research or evidence-based medicine decide on anticoagulation in patients with atrial fibrillation	N=11, GP Age: 33-55 (mean=43) Gender: 9 male, 2 female	N= 11 interviews (semi-structured)	Constructionist thematic analysis	• GPs' perceived awareness and skills to use clinical evidence in explaining risks and benefits of the treatment options • GPs' perceived influence of hospital specialists in the treatment-decision process	22	17
5	Luymes et al. (2016)	NL	To identify barriers and enablers encountered in real-life discussions between patients and their GPs deprescribing preventive cardiovascular medication	N=10, GP Age: 35-60 (mean=54 Gender: 6 male, 4 female	N=49 audiotaped consultations	Not stated, appears to be constructionist content analysis	• GPs' perceived barriers and enablers in discussing deprescription decisions with patients	22	20
6	McMullen (2012)	Canada	To explore how discourses on GP influence and patient autonomy construct treatment decision making for depression	N=11, FM Age: 33-71 (mean=51) Gender: 6 male, 5 female	N=11 interviews (semi-structured)	Constructionist discourse analysis	• GPs' perceived responsibility and degree of control in discussing treatment decisions	17	20
7	Robins et al. (2011)	US	To identify and categorise the full range of verbal behaviours GPs used in routine primary care visits that appeared to increase transparency about process and medical content components of primary care encounters	N=33, GP Age: 36-59 (mean=44) Gender: 16 male, 14 female	N= 263 audiotaped consultations	Not stated, appears to be constructionist content analysis	• The openness and transparency in the way GPs share various information (content and process of treatment) with patients during consultations	19	19

8	Saba et al. (2006)	US	To explore shared decision making and the subjective experience of partnership for patients and GPs in primary care	N=10, GP Age: Not stated Gender: 4 male, 6 female	N=10 Interviews (*simulated recall method with 18 audiotaped consultations)	Not stated, appears to be constructionist grounded theory, thematic analysis	• The ways GPs engaged patients in treatment discussion	18	19
9	Schuling (2012)	NL	To explore how experienced GPs feel about deprescribing medication in older patients with multi-morbidity, and to what extent they involve patients in these decisions	N=29, GP Age: 39-65 (mean=54) Gender: 27 male, 2 female	N=3 focus groups	Not stated, appears to be constructionist thematic analysis	• GPs' ways of using guidelines towards a prescription decision • GPs' perceived patient-centredness in discussing treatment with patients	19	19
10	Sousa (2007)	Portugal	To explore how the beliefs and values of family doctors and multi-problem poor patients interact, to learn more about the interaction patterns and how they may affect the intervention process	N=30, FM=30, patients (to support the findings of the GP) Age: 28-67 (mean=43) Gender: 13 male, 17 female	N= 30 interviews (semi-structured)	Not stated, appears to be constructionist critical incident analysis	• GPs' perceived efficacy of their advice influenced by interaction and verbal response from patients	18	21
11	Stevenson (2003)	NL	To explore the views, potential barriers and facilitators for SDM in clinical practice	N=11, GP Age: Not stated Gender: 6 male, 5 female	N= 2 focus groups	Not stated, appears to be constructionist thematic analysis	• GPs' perception of and concerns about the SDM consultation style in clinical practice	12	17

12	Talen et al. (2008)	US	To explore GPs' views on strategies to enhance patients' communication behaviours during consultation	N=41, FM Age: 27-58 Gender: 18 male, 23 female	N= 5 focus group	Not stated, appears to be constructionist thematic analysis	• GPs' attitude, perceived knowledge and communication skills of patients as facilitators and barriers in communication	17	19
13	Tentler et al. (2008)	US	To describe physicians' affective and cognitive responses to standardised patients' requests for antidepressants, as well as the attitudinal and contextual factors influencing prescribing behaviour	N=22, FM Age: Not stated Gender: Not stated	N= 6 focus groups (4 in-person, 2 teleconferences)	Not stated, appears to be constructionist grounded theory, thematic analysis	•Attitude and prescription response of GPs towards patients' medication request during consultations	21	19
14	Van Roy et al. (2013)	Belgium	To describe the range of discourses GP use in relating to their practice	N=19, GP Age:2 8-63 (mean=42) Gender: 11 male, 8 female	N= 19 interviews (semi-structured)	Not stated, appears to be constructionist narrative analysis	• GPs' perceived role, patient-centredness and difficulties in communicating information with patients	21	21
15	Vegni et al. (2005)	Italy	To analyse the doctor-patient relationship and its difficulties according to doctors' perspectives	N=121, GP Age: 35-67 (mean=54) Gender: 96 male, 25 female	N=121 narratives of a perceived difficult consultation experience	Hermeneutic - interpretative narrative analysis	• GPs' perceived professional role, practice values and challenges when talking to patients in consultations	14	17

*Simulated recall method uses prompts from the videotaped consultations to elicit participants' subjective experience of interaction in a guided interview (Saba et al., 2006)

2.6 Quality appraisal

The studies were assessed using the Standards for Reporting Qualitative Research (SRQR) checklist to promote explicit and comprehensive reporting of qualitative studies and enhance transparency in exploring the included studies (O'Brien, Harris, Beckman, Reed, & Cook, 2014). The SRQR was used to examine the content using 21 criteria (O'Brien et al., 2014) (Appendix 5). An adapted version of the Critical Appraisal Skills Programme (CASP) checklist for qualitative studies was adopted to score the studies as weak, moderate or strong, which allowed easy and efficient comparison between studies, with a maximum score of 24 if all domains were rated as "strong" (Duggleby et al., 2012). As recommended by Duggleby et al. (2012), the purpose of the CASP is to enhance critical appraisal of the findings but not to exclude studies based on their quality (Appendix 6).

2.7 Analytical approach: Thematic synthesis

The thematic synthesis followed an adapted version of the key phases of thematic analysis (Appendix 7) (Braun & Clarke, 2006, p. 35). The quotes and the text in the results or findings section of the studies were transposed into Nvivo 11 software for line-by-line coding and storing. To answer the review question, only quotes from the GPs' perspective were included in the synthesis. The findings were synthesised using an inductive approach and complemented with interpretation by the researcher (Braun & Clarke, 2006; Morton et al., 2010; Sirdifield et al., 2013). A total of 93 codes were generated from reading and re-reading the included studies. Fourteen themes were generated by examining how GPs' consultation styles were influenced by organisational culture, which emerged as a pattern of response across the included studies on the perceived professional roles, values and behaviours of GPs and also their patients during

consultation. A thematic map (Appendix 8) was then drawn in the format of a hierarchy to visualise, compare and contrast the ways these fourteen themes and their associated codes were organised. Themes were then reviewed by examining their connection to the coded extracts and synthesised findings from the included studies. A further stage involved constantly comparing the themes for their consistency and variation within and across the studies (Braun & Clarke, 2006). This process collapsed the 14 themes into nine broader themes, which were finally narrowed into three "best-fitting" themes, illustrated by quotes relevant to the main findings (Braun & Clarke, 2006). Thematic maps were helpful in enhancing the trustworthiness of data analysis by checking how the themes and associated codes were subsumed, differentiated and reconciled with each other. The title of each theme was chosen to reflect the meaning of the study context.

2.8 Thematic synthesis findings

An overall description of themes and subthemes is summarised in Table 7.

Table 7 Description of main themes and subthemes

Theme 1: GPs' perceived expectations about their role as primary care GPs	**Subtheme 1.1: Perceived professional role in clinical practice** Description: GPs' perceptions of their role as partners, health advocates or the voice of medicine in making health decisions with patients
	Subtheme 1.2: Philosophy of clinical practice Description: GPs' perceptions of their values and approaches to patient care including patient-centred, pragmatic-centred and biomedical-centred practice
Theme 2: Perceived degree of patient involvement and responsibility in discussing symptoms, risks and options leading to a treatment decision	**Subtheme 2.1: GPs' perceived concordance with patients' expression of illness influencing their willingness to offer additional information** Description: GPs' perceived concordance with patients' expressions of illness associated with life events or the onset of symptoms, impacting on the way they decide if they should offer further biomedical information.
	Subtheme 2.2: GPs' degree of patient-centredness towards detecting patients' preferences on alternative treatments Description: The content and style of discussions between GPs and patients regarding patients' needs, values and preferences
	Subtheme 2.3: GPs' degree of patient-centredness towards describing risks and benefits of alternative treatments Description: The content and style of discussions regarding treatment options for GPs and patients
	Subtheme 2.4: GPs' degree of control towards reaching a treatment decision Description: The content and style of discussions between GPs and patients leading to a decision made or deferred at the closure of the consultation
Theme 3: GPs' perceptions of different consultation styles and the interpersonal or system influences on their consultation practice	**Subtheme 3.1: System influences to practise different consultation styles** Description: System barriers and facilitators including time constraint, use of clinical evidence, communicating with specialists and medical training within the healthcare system and culture towards practising different consultation styles
	Subtheme 3.2: GPs' attitude towards patients from different socioeconomic class influencing the patient-centredness of their consultation style Description: GPs make different assumptions (patients' attitude, literacy level and communication skills) when interacting with patients from a different socioeconomic background, which influences the patient-centredness of their consultation style

2.8.1 Theme 1: GPs' perceived expectations about their role as primary care GP

This theme describes primary care GPs' underlying assumptions about their perceived professional role, as learnt in their medical education (Gray, 2011; Lipman, 2004). Their role perception was further modified through their interaction with patients, evolving into various patient care approaches including biomedical evidence, patients' comprehensive needs or the functionality of the clinical encounter (Elwyn et al., 1999; Gray, 2011; Lipman, 2004; McMullen, 2012; Schuling et al., 2012; VanRoy et al., 2013).

2.8.1.1 Subtheme 1.1: Perceived professional role in clinical practice

The majority of GPs in Gray's (2011) study described themselves as "partners" when making joint decisions with patients (p. 285). Partners built trust with patients by identifying their needs and trying to open up, discuss and come to an agreement (Lipman, 2004). GPs perceived that a sense of teamwork and patient empowerment was developed in the decision-making process (Gray, 2011; Luymes et al., 2016; Talen et al., 2008). Similarly, in another study, GPs revealed that they felt the need to take responsibility for patients' confidentiality to gain their trust and reveal the true reasons and needs behind the reported physical symptoms (Vegni et al., 2005). A GP recalled facing a difficult situation when the patient requested that he keep her sexual history from her family: "she reveals that she had her first sexual rapport some days ago and since then has suffered from abdominal pain. The patient reveals that she trusts only me and that she is afraid that her parents will find out about what has happened" (Vegni et al., 2005, p. 73).

The term "health advocate" was used by Gray (2011) to describe GPs, who offered a spectrum of advice and information on patients' health conditions as a way to support them to make decisions. Similar terms were used in other studies: "a guide", "an

educator", "scientific advisor", "provider of information", "representative of the scientific community" or "a teacher" who guided patients through the healthcare system mainly by providing information to make the best decision for themselves (Gray, 2011; Lipman, 2004; McMullen, 2012; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005). A GP elaborated his role as health advocate as being neither authoritative nor submissive: "I am just trying to provide them with the […] as unbiased a medical professional opinion as I can to make those choices" (Gray, 2011, p. 286). Another GP mentioned delegating a higher sense of autonomy to help patients to take responsibility for their care (Gray, 2011). Some GPs in Gray's (2011, p. 285) study described themselves as "interpreter" to "decipher" the meaning behind patients' feelings and concerns by "read[ing] between the lines" (VanRoy et al., 2013, p. 5). Interpreters were highly sensitive to "hidden needs" and looked into patients' inner world to find a way to relieve their symptoms (Gray, 2011, p. 285). Similar to health advocates, they valued patients' autonomy to make the final decision (Gray, 2011).

Older GPs who had over 20 years of experience saw themselves as the 'voice of medicine', embracing the physical symptoms and biomedical aspects of patient care; this GPs built rapport by offering professional advice and effective treatments (Elwyn et al., 1999; Gray, 2011; McMullen, 2012; Sousa, 2007; Stevenson, 2003; VanRoy et al., 2013). Compared to other roles, they favoured obedience from the patients and did not like being challenged: "some doctors do not like patients having fixed ideas about what they want or having their own opinions" (Stevenson, 2003, p. 292). This GPs were more dominant in decision-making and believed patients lacked the clinical expertise to make decisions for their care: "they have not been to medical school for five years" (Elwyn et al., 1999, p. 754).

2.8.1.2 Subtheme 1.2: Philosophy of clinical practice

GPs' perceptions of their role influenced their professional practice, which is reflected in how they interacted with patients at the professional and interpersonal level during consultations.

Patient-centred practice

An important code across studies was "patient-centred" practice (Gray, 2011; Karasz et al., 2012; Lipman, 2004; McMullen, 2012; Schuling et al., 2012; Sousa, 2007; Tentler et al., 2008; VanRoy et al., 2013). GPs who perceived themselves as "partners" or "counsellors" strongly believed in this value of practice (Schuling et al., 2012): "I am satisfied if I think or feel my patient is satisfied" (VanRoy et al., 2013, p. 7). They treated the patient as a "whole person" in the sense of "physical, mental, social, and the financial well-being" (Gray, 2011, p. 285). Thus, patient-centred GPs valued a "personal" rather than a "right" decision" (Lipman et al., 2004, p. 293). A GP recalled granting a patient's withdrawal request for a potentially beneficial treatment: "he does not want the commitment to taking medication, to being monitored you know to possibly having the side effects that he might have" (Lipman et al., 2004, p. 294). Some highlighted the importance of "patient-centeredness" not only as a way of gaining patients' trust and loyalty but also of improving treatment adherence and improved clinical performance (McMullen, 2012; Tentler et al., 2008; VanRoy et al., 2013): "if a patient thinks a treatment is going to work, it's much more likely to work" (McMullen, 2012, p. 244).

Pragmatic-centred practice

Some GPs saw consultation as a problem-solving platform: "a functional encounter, it

has to yield something" (VanRoy et al., 2013, p. 6). During the synthesis, GPs in some of the included studies who saw themselves as health coaches or medical interpreters inclined towards this approach (Gray, 2011; VanRoy et al., 2013). Although acutely aware of the benefits of "patient-centeredness", they chose to devote minimum attention to the emotional or spiritual needs of patients in the long-run: "So that extra [affective] input is not profitable. Not for me and not for the patient. Well, that's only satisfaction of needs, but it is not effective, in no way" (VanRoy et al., 2013, p. 7). GPs in Canada chose to be pragmatic, partly driven by the fear of losing business if the consultations were not "functional" enough for their patients: "cause they'll just go down the street to the medi clinic and ask for it from someone else if they don't, that's what happens" (McMullen, 2012, p. 244). They knew the limits of their influence on patients' treatment adherence behaviour: "sometimes people do it sometimes they do not" (McMullen, 2012, p. 245). Therefore, the GPs in the studies by McMullen (2012) and Sousa (2007) centred around "functionality" and saw fulfilling emotional needs as non-important: "The affective part, the mere affective part has diminished [over the years]. Perhaps because I need it less..." (VanRoy et al., 2013, p. 7).

Biomedical-centred practice

In contrast, some were more "biomedical-centred", indicated by an attitude of scientific curiosity in consultation (VanRoy et al., 2013, p. 6). The GPs in studies by Elwyn et al. (1999), Luymes et al. (2016), McMullen (2012) and Schuling et al. (2012) who regarded themselves as the 'voice of medicine' tended to favour this approach and kept the interaction with patients strictly biomedical and based on clinical guidelines: "So according to the current guidelines you would not need lipid-lowering drugs" (Luymes et al., 2016, p. 448). For instance, one GP believed "I have difficulty not following the

guidelines if I don't have good reasons to do so" (Schuling et al., 2012, p. 5). Another emphasised being "protected by data" to boost their confidence in clinical decisions (Elwyn et al., 1999, p. 755). Compared to other philosophies of practice, the biomedical-centred GPs were disease-focused, overlooking the mental and social well-being of their patients.

2.8.2 Theme 2: GPs' perceived professional role and the degree of patient-centredness in discussing symptoms, risks and options leading to a treatment decision

The first theme focused on how GPs positioned themselves in the therapeutic relationship and their core values in the subsequent clinical practice. The second theme explores how GPs' perceptions of their professional role and the practice philosophy of GPs influence how much they allow patients to be involved, to have decisional power and to share responsibility regarding various types of discussions leading to a treatment decision. Karasz et al. (2012), McMullen (2012), and Robins et al. (2011) explored conversational flow in consultations and found that treatment decision-making appeared to be a structured process covering some or all of the following types of discussions: patients' physical and mental symptoms, considering patients' preferences, the risk and harm of the treatment options (for some patient-centred GPs) and choosing a final treatment plan.

2.8.2.1 Subtheme 2.1: GPs' perceived concordance with patients' expression of illness, influencing their willingness to offer additional information

In Karasz et al.'s (2012) study, GPs recalled being more concordant with patients when they expressed knowledge of their symptoms: "I've had two serious bouts of it in the last 10 years and I'm really scared that I will go through that again" (p. e58). GPs felt

that patients' expressed knowledge about the onset of their symptoms led them directly to a clinical diagnosis, convincing them of the need to initiate discussion in the next steps to explore different treatment alternatives. In contrast, when patients associated their illnesses with life events as described by a patient in Karasz et al.'s (2012) study "I'm just very, very depressed, not feeling good. On the job, I'm being treated indifferently at this point right now…They wanted me to resign" (p. e58), GPs felt that it would be disconcordant and inappropriate to use their clinical expertise in treating social problems triggered by stressful life events (Karasz et al., 2012; Luymes et al., 2016; VanRoy et al., 2013). These GPs were also sceptical as to whether their consultation or medication would benefit these patients in the long run (Karasz et al., 2012; Luymes et al., 2016; VanRoy et al., 2013). Therefore, patients' expression of illness emphasising life events distracted GPs and prevented their further exploration into other aspects of medication decisions (Karasz et al., 2012).

2.8.2.2 Theme 2.2: GPs' degree of patient-centredness in detecting patients' preferences of alternative treatments

Another prevalent code "eliciting treatment preference" arose across many of the included studies (Elwyn et al., 1999; Karasz et al., 2012; Lipman, 2004; Robins et al., 2011; Schuling et al., 2012; Sousa, 2007; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005). GPs tried to explore patients' preferences by asking: "why don't you tell me what is on your mind and let's figure out what we can take care of today reasonably and go from there" (Robins et al., 2011, p. 75). One GP probed in a highly direct manner: "This time you need something?" (Karasz et al., 2012, p. e59). Unlike some of the GPs in Karasz et al.'s (2012) study, who wished to get straight to the treatment decision, Sousa (2007), VanRoy et al. (2013) and Vegni et al. (2005) argued that some GPs try to

decipher patients' "complaint behind the complaint" (VanRoy et al., 2013, p. 5). A GP recounted exploring patients' agenda to see if a patient was depressed and looked for non-verbal signs such as social or family support and care "it was recently Mother's Day, and she didn't see anyone [in her family], and the woman is not feeling well, you don't need to administer tests to deduce that she could be depressed" (VanRoy et al., 2013, p. 5). To make a prescription decision across Karasz et al. (2012), McMullen (2012) and Tentler et al.'s (2008) studies, GPs valued patients' expressed needs and preferences instead of just following the clinical guidelines in shaping the treatment plan. Karasz et al.'s (2012) study highlighted that a patient-centred consultation style was similar to other non-clinical healing therapies such as counselling to explore and listen to patients' more implicit needs. Some GPs still relied on their "intuitive judgement" to explore patients' character and how far they would like to take part in a decision: "I can tell people frankly, you know. I think this fellow you are with he is beating on you, and he's just not good for you; you should probably leave him." (McMullen, 2012, p. 245). Intuitive judgement was adopted by some GPs with more clinical experience and exposure, who insisted that this was key to avoid decisional conflict yet still meet needs of the patients (Elwyn et al., 1999; McMullen, 2012).

2.8.2.3 Subtheme 2.3: GPs' degree of patient-centredness in describing risks and benefits of alternative treatments

Another type of discussion involved presenting medical information: a step to "take information and make it into soundbites the patient can understand" (Gray, 2011, p. 284). Some GPs simply "offer them all", namely choices, risks and benefits to patients (McMullen, 2012, p. 241). Another GP in a study felt the all-in approach would overwhelm the patients with "options with small risk" (Elwyn et al., 1999, p. 755) and opted for just a handful of effective options. Some other GPs from two studies shared

the same opinion and felt professionally bound to "choose the data" (Elwyn et al., 1999, p. 755) and "provide sufficient information to enable people to make choices" (Schuling et al., 2012, p. 3). Despite these various approaches, there is no consensus on the right sources, interpretation and depth of information across the included studies focusing on the treatment information exchange pattern between GPs and patients (Elwyn et al., 1999; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Schuling et al., 2012). For communication of risks, a GP favoured the use of the colourful "risk tables" which helped to illustrate the concept of relative susceptibility of patients to disease: "The coloured numbers in the cardiovascular tables of our guideline have an important effect: when your patient sees himself and in orange or red his motivation is influenced" (Schuling et al., 2012, p. 4). Another GP also felt patients were more "informed" and engaging when "[they] have some part of the decisions" using these tools (Elwyn et al., 1999, p. 754). In terms of interpreting different options, a GP recommended the bio-psycho-social model to guide the choices: "this is what you do for psychological wellbeing, and this is what you do for medication, and this is what I think will work in your case, but these are your options" (McMullen, 2012, p. 242). Within some GPs' accounts, this talk is a kind of "soft sell" (McMullen, 2012, p. 243) in framing risk: "establish and push the information in certain direction" to reinforce patients towards certain preferences, and omitted unfavoured ones such as "no action" or "deferring action" at times (Elwyn et al., 1999, p. 754).

2.8.2.4 Subtheme 2.4 GPs' degree of control over reaching a treatment decision

The above subthemes progressed into the final discussion on reaching a decision. It usually came in the form of decisions to start, change, monitor or stop treatments across the majority of studies (Karasz et al., 2012; Luymes et al., 2016; McMullen, 2012;

Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Tentler et al., 2008). Regarding treatment initiation, some GPs made a direct request while others chose to ask tentatively to avoid the embarrassment of rejection: "I think therapy and maybe medication might be helpful. I don't know what you're thinking about though" (Karasz et al., 2012, p. e59). One hinted at such requests might be framed strategically "in a way that they're the ones that decide that", particularly if it was something that is against a patient's preference (McMullen, 2012, p. 243). Coming to terms at the end, some wrapped up with promises: "I expect this…" (VanRoy et al., 2013, p. 7) or offered a contingency option to relieve patients' worries about unexpected side effects: "If …there is an indication again to restart medication" (Luymes et al., 2016, p. 451). Some GPs recalled a moment of losing control of the direction of the consultation when an "oh by the way" request popped up: "oh by the way...I have been short of breath, or I have been thinking about killing myself" (Talen et al., 2008, p. 62). Given this, some GPs treated decision-making as "as a process but not an event" and span the "talks" across sessions until a decision was reached (Elwyn et al., 1999, p. 755). This gap between sessions is considered good reflection time for patients to rethink their preference and views on alternative treatments (Saba et al., 2006).

2.8.3 Theme 3: GPs' perceptions of different consultation styles and the interpersonal and system influences on their consultation practice

The final theme explores GPs' perceptions of interpersonal or system influences on adopting different consultation styles in treatment discussions. The consultation styles identified by the authors across Elwyn et al., (1999), Gray, (2011) and Stevenson's, (2003) studies can be summarised as GP-centred (paternalistic), and patient-centred (shared and informed) approaches. Among these approaches, Gray's (2011) study

described a transgenerational trend between older and younger GPs related to the shifting focus of medical training from biomedical to psychosocial aspects of patient care across the years. This shift may influence the acceptance and practice of GP-centred and patient-centred styles and was observed in the studies by Schuling et al. (2012), VanRoy et al. (2013) and Vegni et al. (2005).

Gray (2011) found that GPs in their fifties appeared to be more paternalistic than younger GPs and were described as "be all, end all, know all" who insisted on the doctors' choice for the most effective treatment (Gray, 2011, p. 284). In another study, GPs in their forties prioritised on a "collaborative patient-centred" approach between GPs and patients to make a "joint decision" (Luymes et al., 2016, p. 448). Younger GPs in their thirties were more "autonomous patient-centred", emphasising patients' negotiation power and their taking responsibility for the final decision (McMullen, 2012, p. 243).

On the other hand, GPs expressed both welcoming and wary attitudes towards the feasibility of practising patient-centred styles across several studies (Elwyn et al., 1999; Saba et al., 2006; Schuling et al., 2012; Stevenson, 2003). GPs in one study considered these styles as new approaches "doing something different from the talk we normally do" in terms of mutually discussing preferences, options and other views in a consultation (Elwyn et al., 1999, p. 754). Older GPs in VanRoy et al. 's (2013) study commented that the patient-centred consultation styles limited their expertise by handing over the decision power to the patients and were described as "not daring to offer an opinion" on patients' condition. In fact, the majority of studies highlighted the "context-specific" nature of the different styles (Karasz et al., 2012; Lipman, 2004;

Luymes et al., 2016; Robins et al., 2011; Schuling et al., 2012; Tentler et al., 2008; Vegni et al., 2005). For instance, the GP-centred style was considered a foundation approach which could be applied to emergency and non-emergency consultations. The patient-centred styles were seen as more beneficial in non-emergency situations in which more than one effective option was available to treat a chronic condition (Elwyn et al., 1999, p. 755). A GP concluded that SDM or an informed style was not happening in the UK when the study took place in the late 1990s and was considered rare across chronic disease consultations (Elwyn et al., 1999).

2.8.3.1 Subtheme 3.1 System and organisational influences

Several codes representing facilitators and barriers to practising different consultation style arose from the studies conducted in UK, the Netherlands, Belgium and the US , including: "time factors", "the dynamics of healthcare communication", "the use of evidence or guidelines" and "GPs' training" (Elwyn, et al., 1999; Stevenson, 2003; Tentler et al., 2008; VanRoy et al., 2013). More studies discussed influences on adopting SDM than other consultation styles (Elwyn, et al., 1999; Saba et al., 2006; Schuling et al., 2012; Stevenson, 2003).

"Time constraints" were mentioned in several studies (Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008) as the reason behind adopting a more GP-centred consultation style. Under time constraints, GPs took the lead to prioritise and resolve more "pressing issues" related to the symptoms, leaving other problems for the next session (Saba et al., 2006, p. 59). For SDM, GPs saw time as their enemy as it took time and energy to achieve shared understanding across the various discussions of symptoms, treatment preferences and benefits and risks (mentioned in theme 2) with patients (Stevenson et

al., 2000, p. 292). In reality, even for those who used SDM with patients, some depth of the discussion such as the comprehensive assessment of all clinical or psychological symptoms may be lost, minimised or left out by GPs due to high patient load (Tentler et al., 2008). For example, some GPs assumed patients who initiated treatment requests were acutely aware of their diagnosis and thus skipped the symptoms and options talks. Tentler et al. (2008) suggest this would allow more efficient diagnosis and treatment, saving sufficient time for discussing options and the need of medication to the patients (Tentler et al., 2008).

The recurrent code "use of evidence or guidelines" described some potential benefits or challenges using existing guidelines or research findings while discussing options or decisions with patients. In Lipman et al.'s (2004) study, GPs regarded the published British Heart Foundation guidelines as helpful to illustrate the risks of various treatment options to their patients. Others criticised the constantly changing trend of the research evidence for the most effective option (aspirin versus warfarin treatment) to prevent atrial fibrillation (Lipman, 2004). One GP felt frustrated about the new evidence on aspirin after changing his practice to recommending warfarin three years ago: "I think that the recent leader in the BMJ that was saying…hang on, you know we are pushing this [warfarin] too hard, is aspirin just as good?" (Lipman et al., 2004, p. 293). Another GP handled contradictory evidence differently in the preference and option discussions, seeing both medications as priorities and also equally "justified" alternatives for his patients: "Well okay if somebody does not want warfarin, we can give them aspirin" (Lipman et al., 2004, p. 293). Concerning research findings, GPs found it hard to generalise from them in realistic settings due to the stringent selection criteria in controlled trials, often targeting individuals with more severe conditions (Lipman,

2004). In reality, GPs highlighted a need to integrate and redesign clinical guidelines for patients with multiple conditions (Lipman, 2004; Schuling et al., 2012). A GP denounced the variability of warfarin guidelines to initiate or monitor treatment, with these lacking awareness of the complexity and needs of patients suffering from several physical and mental conditions (Lipman, 2004). Due to the limitations of the guidelines, GPs could only offer several dichotomous treatments listed in various guidelines instead of a prioritised and integrated decision to treat the multiple chronic conditions in patients (Schuling et al., 2012). Without integrated guidelines, GPs felt that they were falling into the trap of overprescribing advised by a mix of guidelines, exposing their patients to an increased risk of harmful side effects (Schuling et al., 2012). In another study, existing guidelines were criticised as lacking consideration for older patients who were both the highest risk and the largest group of hospital users (Schuling et al., 2012).

In some studies, GPs reported patients with chronic conditions were transferred reciprocally between community care, primary care and hospital care to make decisions regarding their medications. A GP explained the challenge of a patient being "monitored in 5 different systems" and making multiple decisions to address the complex social and clinical needs with various health professionals (Lipman et al., 2004, p. 294). Facing a fragmented health system, a GP expressed worries in Schuling et al.'s (2012) study regarding "medical error" (p. 5) as GPs rarely open up and communicate with each other. Instead, GPs insisted on their chosen set of guidelines and research findings to offer treatment plans and patient care (Schuling et al., 2012). Primary care GPs in Lipman's (2004) study admitted "how big an influence secondary care is still having on the decisions as to what people have" (p. 294) and their "fear" of liability to challenge specialists' (p. 294) decisions from a higher authority. As a GP, it was

important to appear “competent” by initiating sensible referrals: to “be able and dare to urge colleague-specialists [to see a patient]” (VanRoy et al., 2013, p. 4). When discussing a decision about treatment continuation with patients, another GP chose to play it safe and act consistently with the specialist’ opinions: “And then you went to see the specialist, isn’t it? And he also advised to continue [the medication] isn’t it?” (Luymes et al., 2016, p. 452). Some GPs in a study revealed the hidden sense of competition that emerged not only between specialists and GPs, but also in their interactions with other GPs and medical trainees in primary care (Tentler et al., 2008).

GPs who were more comfortable with a GP-centred style admitted their medical education mostly covered the more functional parts of the consultation on “achieving rapport, matching agendas and problem-solving” and less on the psychosocial communication of patient-centred styles (Elwyn et al., 1999, p. 755). Some GPs felt that they were not entirely sure about how SDM worked: “I think you need penicillin is that all right with you. Is that really shared decision-making, or is it saying, what do you think you need?” (Stevenson, 2003, p. 292). Some in Elwyn et al.,'s (1999) study admitted they listened to patients’ views and expressed theirs but doubted they dug deeper into the areas “ideas, concerns, expectations” (p. 755) of patient-centred styles. A GP in VanRoy et al.'s (2013) study tried to explore patient preferences by asking “Is everything going ok lately?” (p.6), but patients’ responses revealed that they were not ready to open up to patient-centred communication: “I’ve got a sore throat. That happens” (p.6). In addition, one GP did not feel confident using patient-centered decision tools such as the “numbers needed to treat (NNT- a mathematical formula)” to illustrate the number of patients who will benefit and will not benefit from different medications during a specific period of time: “I know that people view sort of up to

NNTs of 20 and 30 as being quite important, but I don't know why it is that much, I can't put that into context" (Lipman et al., 2004, p. 293). In the digital and information age, GPs felt unarmed and challenged by patient-centred styles when they could not provide an immediate answer to patients' requests for information (Elwyn et al., 1999).

2.8.3.2 Subtheme 3.2 GPs' attitudes towards patients from different socioeconomic class influencing the patient-centredness of their consultation style

In some cases, GPs who perceived that their patients had limited capacity to receive and communicate medical information adopted a more GP-centred style (Elwyn, et al., 1999; McMullen, 2012; Saba et al., 2006; Schuling, et al., 2012; Stevenson, 2003; VanRoy, et al., 2013; Vegni, et al., 2005). Some GPs from two studies found it hard to discuss disease management, particularly psychological distress, with older and less educated patients (Schuling et al., 2012). Some were particularly irritated by vague descriptions "I got sick 15 years ago" and "the pink pill that pharmacy knows it" from patients in lower social class groups (Talen et al., 2008, p. 62). Patients who provided vague descriptions were perceived as dishonest and not fully revealing their condition or needs during the consultation (VanRoy et al., 2013; Vegni et al., 2005). Others in two studies recalled some patients who preferred the paternalistic style by staying passive "say[ing] nothing" or adopting an evasive manner by saying "you fix me" (Talen et al., 2008, p. 64). These patients expected GPs to do all the work for them: "they just want to be told what to do" (Stevenson, 2003, p. 292). Rather, patients with accurate descriptions, who gave: "focused, precise description in 4-5 points" with "prioritized concerns" and who used encouraging "gestures": "Brings pills and blood sugar charts and know what they are for" (Talen et al., 2008, p. 63) led GPs to open up and use a more patient-centred consultation. Some GPs in Talen et al.'s (2008) study recalled that positive feedback

from patients encouraged them to be involved in a more patient-centred style: “I’m feeling better since I took those meds” (p.63). The perceived efficacy of helping the patients through patient-centred discussion promotes a sense of trust and joint achievement: “I, therefore, believe we have both won” (Vegni et al., 2005, p. 73). Conversely, GPs perceived that patients who were complaining, rejecting and ‘manipulating’ would not trust their medical advice or adhere to prescribed treatments (Talen et al., 2008; VanRoy et al., 2013; Vegni et al., 2005). For example, a GP recalled “being deceived, being duped or not having seen through it” by these types of patients (VanRoy et al., 2013, p. 6). Thus, GPs closed the door to mutual discussion and preferred to merely consult in a paternalistic way (Talen et al., 2008; VanRoy et al., 2013; Vegni et al., 2005). Interestingly, GPs felt challenged by some highly-educated patients who tried to dominate the consultation: “a lady sustains to know what’s wrong with her, how to cure herself and which tests or visits she decided to have done” (Vegni et al., 2005, p. 72).

2.9 Summary

The studies included in this review mainly focused on the following dimensions of organisational culture: patient-centredness, communication pattern and health system or patient facilitators and barriers influencing GPs’ treatment consultation style. Gray's (2011) findings suggested that age and training may affect GPs’ willingness to practise patient-centred styles, a phenomenon which also occurred across Schuling et al. (2012), VanRoy et al. (2013), and Vegni et al. (2005)’s studies. Gray (2011) also suggests that older GPs who saw themselves as medical experts trained in a disease-centred model of medicine were more inclined towards a paternalistic style. Gray (2011) and Luymes et al. (2016) suggested there has been a gradual shift towards a more patient-centred

approach to consultation: younger GPs in their 40s perceived themselves as partners in health with patients, whereas some younger GPs in their 30s, perceived themselves as health advocates and favoured a more autonomous approach towards patient care, using the informed model (Gray, 2011; McMullen, 2012). These younger GPs tended to be happy to let go of the decisional power and be the information provider for their patients (McMullen, 2012). Karasz et al.'s (2012) findings may also suggest that factors such as the ways of describing symptoms, preferences, options and decision discussions between patients and GP all affect the patient-centredness of GPs' consultation styles. GPs who felt more concordant with patients who associated their illness with the onset of symptoms rather than with life events also tended to use a more patient-centred style. This was partly because this style could both lead directly to clinical diagnosis and pave the way for exploring preferences, options and treatment decisions (Karasz et al., 2012). System- and patient-related challenges such as limited time, unclear guidelines, challenges in communicating about decisions with hospital doctors, a lack of focused skills training on patient-centred consultation styles and lower health literacy and communication skills from older, frail or less educated patients undermined the readiness and confidence of GPs to practise patient-centred styles (Elwyn et al., 1999; Lipman, 2004; Schuling et al., 2012; Stevenson, 2003; Talen et al., 2008).

2.10 Applicability, strength and limitation of this review

The strength of this review is the systematic approach used to extract, summarise and interpret qualitative evidence related to organisational culture and consultation behaviour. The themes and subthemes have been used to summarise the key findings from each included study. By drawing them together, this review can go beyond descriptive findings by looking into the underlying influences of organisational culture

on various aspects of treatment communication. However, the synthesis is subject to the quality and reporting comprehensiveness of the original studies. The results of the SQRQ (Appendix 5) and CASP (Appendix 6) highlighted a lack of reflexivity and consideration of ethical issues in some of the included studies (Saba et al., 2006; Stevenson et al., 2000; Vegni et al., 2005). Reflexivity is the researchers' self-reflection on how their theoretical position, knowledge, and understanding may affect the interpretation of the findings of the studies (Berger, 2015; Jootun, McGhee, & Marland, 2009). A lack of reflexivity means it is difficult to evaluate the potential level of researcher 'bias' in the studies. Another strength is that the majority of the studies were conducted by researchers who were trained and governed by professional conduct guidelines and ethical principles such as the Declaration of Helsinki and were carried out in compliance with laws and regulations applicable to clinical research on methodology, analysis or presentation of findings.

Regarding transferability of findings from Western to Eastern settings, the findings of this review have been generated from highly developed Western countries, sharing similar standards of living and levels of social and healthcare development as shown in the Human Development Index (HDI) based on life expectancy at birth, mean years of schooling and gross national income per capita (United Nations, 2015) (Table 3). Due to the limited diversity of the studies included, the findings of the review may not be entirely applicable to the Eastern world as there are disparities across several dimensions of national culture (Table 3) and health system indicators between the East and the West (Hofstede, Hofstede, & Minkov, 2010; The World Bank, 2017; United Nations, 2015). The disparity of national culture between the East and the West may impact on the manifestation of organisational culture, but these differences have not

been explored nor mentioned in the included studies. In fact, little research has been conducted on organisational culture and its impact on consultation practice in most countries in general, with even less such research conducted in Eastern developing health systems. With rapid population growth, and the burden of ageing and chronic diseases in developing countries such as China and India, it is essential to explore the role of organisational culture in Eastern contexts to establish if these findings could be applied to countries with different economic, social and health system environments (Kowal et al., 2012). For instance, the ways GPs felt about the training in place on patient-centred styles were only discussed in two of the included studies, which could serve as useful indicators to reflect on their readiness for a more mutual consultation style (Elwyn et al., 1999; Gray, 2011).

2.11 The research gap

Overall, there are several aspects of organisational culture which may influence GPs' consultation styles but have not been explored or examined in the included studies: the communication climate between senior and junior GPs in medical training; the ways GPs learn and acquire consultation skills; the financing culture for healthcare resources, which may be the main reasons for time constraints and other system barriers, and the performance appraisal culture in which GPs are recognised and rewarded. Most importantly, the cultural disparity between public and private healthcare organisations arising from different financing mechanisms, public expectations, illness characteristics and patient characteristics were not examined in the included studies**.** Another gap is that existing theories on national and organisational culture, such as the Hofstede's cultural dimension theory and the Hofstede's multi-focus model of organisational culture, have not been applied in healthcare settings to explain how national and

organisational culture might influence GPs' consultation styles.

2.12 Conclusion

Organisational culture has the potential to influence GPs' clinical practice and consultation style, including in healthcare decision-making. The findings of this review have shown that GP- or patient- centred consultation styles could be beneficial in different clinical contexts, and are influenced by several patient factors, GPs' assumptions, health system and organisational facilitators and barriers. Some key aspects of the organisational culture, such as the communication climate, learning culture, financing culture and performance appraisal culture still have not been explored in a primary care context. Further studies to explore the way these organisational cultures influence treatment decision-making styles among GPs from public and private healthcare organisations would be worthwhile. Besides Hofstede's theories (Table 2 and Table 4), there is a lack of theories and studies in the healthcare context to explain how organisational culture influences consultation styles in making treatment decisions. This PhD study will use Hofstede's multi-focus model of organisational culture to explore the link between organisational culture and decision-making styles in the healthcare context, taking possible influences from national culture into consideration. This is also the first study to explore whether the six cultural dimensions in the multi-focus model could be applied to explain the influence of organisational culture and consultation style in an Asian country.

CHAPTER 3 GPS' VIEWS ON PROVIDING CARE IN PUBLIC AND PRIVATE ORGANISATIONS IN HONG KONG - A QUALITATIVE STUDY

METHODOLOGY AND METHODS

This study aims to explore 1) GPs' perceptions of organisational culture within their healthcare organisation and 2) how these perceptions influence their consultation style during medication consultations with patients with chronic diseases. The study objectives are:

1. To explore whether and how organisational culture differs within public and private healthcare organisations in Hong Kong.
2. To explore GPs' and senior managers' perceptions of organisational culture and how it influences GPs' consultation style during medication consultations in Hong Kong.
3. To explore GPs' readiness to practise shared decision-making (SDM) in patient consultations and whether there are policy, organisational or individual barriers preventing them from doing so.

Research question: 'What is the nature of GPs' consultation style in Hong Kong, and how is it influenced by organisational culture within healthcare organisations?'

This chapter discusses the relationship between the chosen ontology, epistemology, methodology and methods for this PhD study, and describes the recruitment strategy, data collection and data analysis. Ethical considerations are also explored.

3.1 Ontological and Epistemological position

This study adopts constructivism as an ontological position, in the belief that the

perceptions and subsequent behaviours of the stakeholders are constantly shaped by multiple socially constructed phenomena (Bryman, 2012). The thematic synthesis of the previous literature (Chapter 2) identified a range of psychosocial and organisational factors arising from GP-patient and GP-specialist interactions that influence GPs' consultation style. To answer the research question, knowledge regarding GPs' perceptions of the organisational experience within healthcare organisations, and how these perceptions shape their personal views and their use of the dynamic consultation styles within Charles et al.'s (1999) model are needed. A constructivist epistemological position was therefore adopted in recognition of how social interactions in the medical world shape GPs' identity, their understanding of organisational culture, consultation style and willingness to practise SDM (Husserl, 2012; Scott, Mannion, Davies, & Marshall, 2003). This is different from other approaches such as the realist position, which is about the recognition of a truth more common to all (Walsh & Evans, 2014). The constructivist approach accounts for how people construct meaning and knowledge and make sense of their experience through social interactions. It is important to note, however, that the interpretation of the social interactions under exploration is also affected by the researchers' views and assumptions (Braun & Clarke, 2006; Flick, 2014).

In line with the constructivist ontological and epistemological stance, this study adopted a qualitative methodology to explore organisational experiences in depth and answer the research questions (Braun & Clarke, 2006; Husserl, 2012; Scott et al., 2003). On one hand, the constructivist stance offers a comprehensive view to understand aspects of organisational culture such as the coexistence of several organisational cultures which are constantly evolving in healthcare organisations. On the other hand, a qualitative method, face-to-face semi-structured interviews, was chosen to enable the

generation of knowledge about GPs' organisational experience, views and perceptions of different consultation styles within Charles et al.'s (1999) model and grounded in GPs' social context. It also guided the data collection and interpretation of the interviews to search for both explicit and hidden meanings, shaped through the interactions between GP-GP, GP-patient and GP-manager in the Chinese social-cultural context.

3.2 Methodology and method

Compared with quantitative methodology, a qualitative design was more appropriate to achieve the research objectives and was used to explore GPs' perceptions of organisational culture and the influences of these on their consultation styles. Qualitative methodology produces data consisting of words, observations or dialogues, making sense of perceptions, emotions and feelings in the context of participants' experience (Flick, 2014). The study includes in-depth individual interviews with a sample of GPs and senior healthcare managers. The following sections describe and elaborate on the study setting, choice of methods and data analysis process.

3.2.1 Study setting

The study was conducted at the Jockey Club School of Public Health and Primary Care (JCSPHPC) within the Prince of Wales Hospital, a teaching hospital and research centre of the Chinese University of Hong Kong. The fieldwork was conducted at the JCSPHPC, at GPs' clinics and at a nearby private meeting or conference room between November 2016 and December 2017.

3.2.2 Population

To address the influence of organisational culture in primary care consultations, GPs working in group practices in either the general and/or family medicine speciality were selected as potential participants. Two types of GPs, those working in solo practices and private hospitals, were excluded in view of the research question/objective 2 and the chosen epistemological position of this study. Firstly, solo GPs work in relative isolation and have limited daily social interactions with their peers to experience an organisational culture (Husserl, 2012; Scott et al., 2003). Secondly, GPs from private hospitals mostly focus on preventive care, such as body checks and vaccinations rather than chronic disease management. To maximise revenue, they are expected to refer patients with chronic diseases to internists or surgeons instead of keeping them in general practices. Hence, GPs from private hospitals, concentrating on preventive care, may have a very different practice culture than GPs from public sector and the private medical groups in the community.

Furthermore, previous studies have found that ownership, size, and co-existing specialities within an organisation moderated on how organisational culture impacts on medical performance (Kash & Tan, 2016; Scammon et al., 2014; Siu, 2015). Curoe, Kralewski, & Kaissi (2003) stated that large, multi-specialty practices (>10 GPs) were considered more complex, with different practice cultures from small single-specialty practices (3-10 GPs). These differences were manifest in aspects such as their organisational identity and business emphasis in response to the different demands of patients, the health system and the environment. In Hong Kong, GPs from private hospitals had a relatively small teams, having fewer than 6 (range = 1 - 12) GPs than the other public hospitals or private community groups listed in Tables 8 and 9 (Canossa

Hospital, 2018; Evangel Hospital, 2018; Gleneagles Hospital, 2018; HKSH Healthcare, 2018; Hong Kong Adventist Hospital-Stubb Road, 2018; Hong Kong Baptist Hospital, 2018; Matilda Hospital, 2018; Precious Blood Hospital (Caritas), 2018; St. Paul Hospital, 2018; St. Teresa Hospital, 2018; Tsuen Wan Adventist Hospital, 2018; Union Hospital, 2018).

3.2.3 Sample

A total of 13055 GPs in general practice or family medicine in public and private settings in Hong Kong were identified from "Gazette", an official online government channel to disseminate legislation; public notices on registered GPs; the Hospital Authority and Department of Health websites; medical group websites and the Medical Council (GMC, 2015; Hong Kong Hospital Authority, 2017b; Ministry of Health and Social Affairs, 1982; The Government of the Hong Kong Special Administrative Region, 2015). Of these, 283 GPs and 64 senior managers from four private medical groups (Table 8), 43 public hospitals and 73 public clinics (Appendix 9) met the inclusion criteria and were approached. To enhance the transferability of the data, a sample of 14 GPs and six senior managers practising in public and private settings were selected according to their practice characteristics. Participants' affiliated organisations (public vs private), nature of practice (clinical vs healthcare management), and years of experience in primary care were considered in the sampling process to increase the variability of the sample.

3.2.4 Selection of GPs

3.2.4.1 GPs: Inclusion and exclusion criteria

Eligible GPs:

1. Were currently working in general outpatient clinics or family medicine specialist clinics under the Hong Kong Hospital Authority (public sector) (Appendix 9) or within one of the main private community medical groups in Hong Kong (Table 8)
2. Had a minimum of 1 year of full-time experience of outpatient consultations in general practice for patients with chronic diseases.

GPs who did not fulfil the above criteria were excluded.

Table 8 List of main private community medical groups in Hong Kong

	Group name	Size of practice for general or family medicine across three main regions[1] of Hong Kong	Established in
1	UMP Healthcare Holdings Limited	12 medical centres, around 50-60 GPs,	1990
2	Town Health International Medical Group Limited	100 medical centres, 51 GPs	1997
3	Human Health	60 medical centres, 100 doctors and dentists	1997
4	Quality HealthCare Medical Services Limited	50 medical centres, 70 GPs	2013

3.2.4.2 GPs: Sampling method and sample size

Stratified purposive sampling and snowball sampling were used to recruit frontline GPs from public and private settings. The study stratified the 283 GPs into two groups according to the nature of the practice (public or private) before the invitations were sent to all of them. In Hong Kong, public GPs are employed and serve in group-based public clinics or hospitals (Hong Kong Hospital Authority, 2017b). Alternatively, only 15% of private GPs serve in group-based clinical practices (Hong Kong Medical Association and Harvard University, 1998). In 2010, a study on primary care consultations found that patients reported significantly better experience in the private sector than in the public sector in Hong Kong (Wong et al., 2010). To foster a better understanding of organisational culture at the different levels of the organisation, GPs with various years of experiences were also recruited.

According to some accounts, the optimal sample size for thematic analysis is determined by thematic saturation of the data, meaning that data collection should go on until no new themes or patterns emerge from the data (Mason, 2010; O'Reilly & Parker, 2012). Therefore, a total of 14 interviews were conducted, with seven GPs from public and private sectors respectively (Mason, 2010). Thematic saturation was achieved in both groups.

3.2.5 Selection of senior managers

3.2.5.1 Senior Managers: Inclusion and exclusion criteria

Eligible senior managers:

1. Were currently working as a chief of service in family medicine in the Hospital Authority (Table 9) or

   Were currently working as a chief medical director in one of the main private community medical groups in Hong Kong (Table 9) or

   Were currently working as a chief executive under the Hong Kong Medical Council or Hong Kong College of Family Medicine in Hong Kong
2. Had a minimum of 1 year of full-time experience in managing a healthcare organisation.

Participants who did not fulfil the above criteria 1and 2 were excluded.

Table 9 Potential senior managers from the following institutions identified from relevant websites

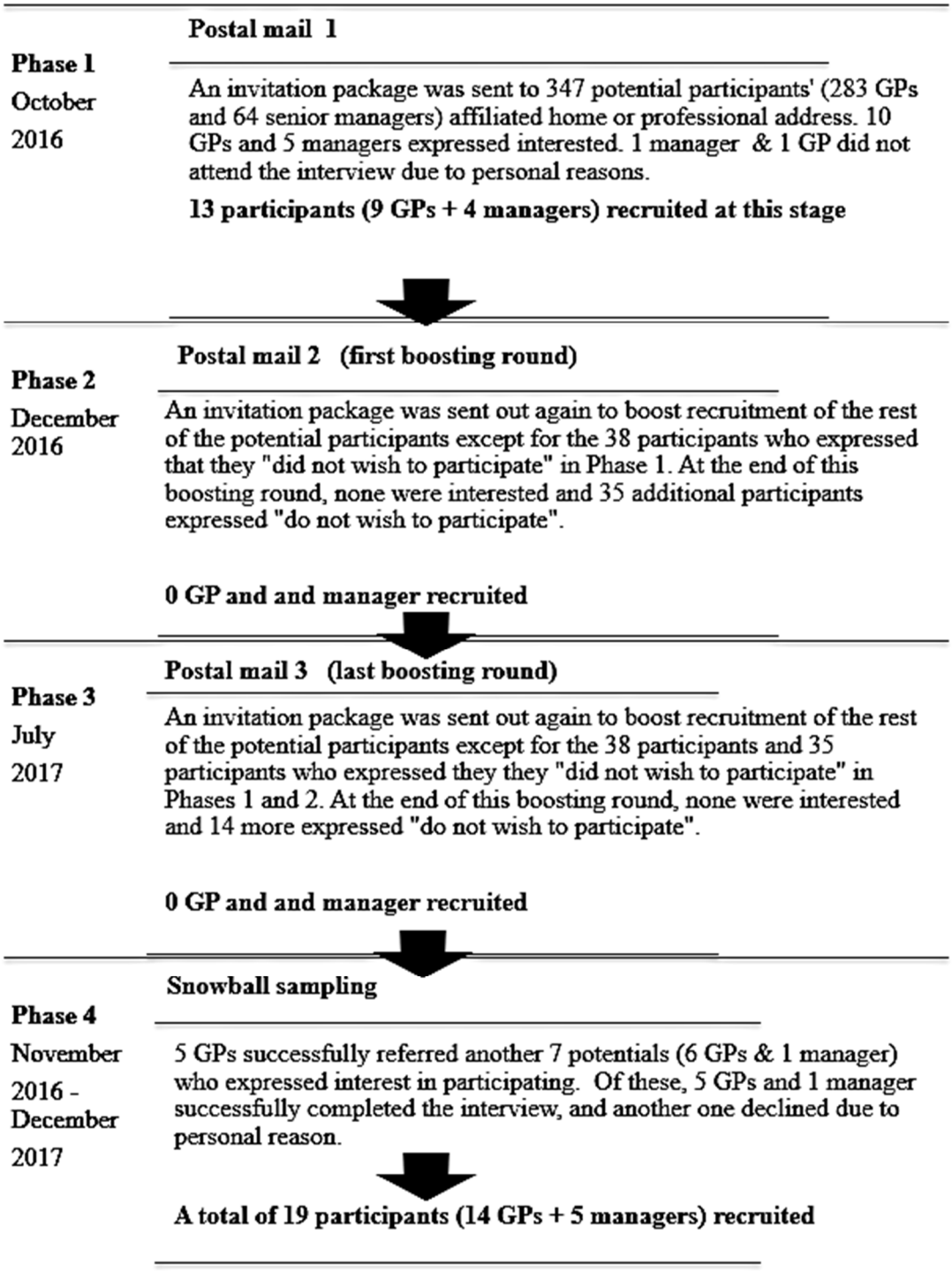
Cluster chief of service from public hospitals (n=7)	**Chief medical director of private community medical groups (n=4)**	**Chief executive of medical associations (n=2)**
Hospital Authority (New Territories East Cluster)	UMP Healthcare Holdings Limited	Hong Kong Medical Association
Hospital Authority (New Territories West Cluster)	Town Health International Medical Group Limited	Hong Kong College of Family Medicine
Hospital Authority (Kowloon East Cluster)	Human Health	
Hospital Authority (Kowloon Central Cluster)	Quality HealthCare Medical Services Limited	
Hospital Authority (Kowloon West Cluster)		
Hospital Authority (Hong Kong East Cluster)		
Hospital Authority (Hong Kong West Cluster)		

3.2.5.2 Senior managers: Sampling method and sample size

Purposive and snowball sampling methods were used to select senior managers based on their position in affiliated organisations. In terms of how "senior manager" was defined, this included the chiefs of service in family medicine of a hospital, medical directors of private medical groups, senior administrators, managers and GP leaders who were knowledgeable not only about the organisational cultures of primary care practice within the department but also about the relationship between departments within their organisation. For this specific research topic, five managers from public, private and professional institutions were interviewed about their views on the organisational culture (specific to medication decision-making) and GPs' perceived readiness to practise SDM within their organisation. However, thematic saturation was not possible among these senior managers, who had tight and busy schedules in managing their healthcare corporations.

3.2.6 Recruitment

Figure 5 Recruitment process



A total of 283 GPs and 64 senior managers who met the inclusion criteria to enter the recruitment stage were approached through an invitation via postal mail (Figure 5). An

invitation package (information sheet, expression of interest form, consent form, and a postage-paid return envelope) was sent to all potential participants (Appendices 10 to 19). A returned expression of interest form (by telephone/fax/email/post) indicated participants' interest in joining the study (Appendices 12 and 17). Upon receiving the expression of interest form, the researcher telephoned the volunteering participants and screened them using the inclusion and exclusion criteria. Basic information was obtained, such as the nature of their practice, their clinical role, institution and years of clinical experience. Those who did not meet the eligibility criteria were informed immediately that they were not suitable for the study. Eligible participants were contacted again by the researcher within two weeks and a date, time and venue for the interview were agreed with the participant. At the end of the interview, each participant was invited to refer 2-3 potential participants by delivering a copy of the invitation package to these contacts.

I faced some challenges in the recruitment phase with a low response rate, which will be discussed in the strength and limitations section in Chapter 5. The senior managers explained that, being head of clinical teams, their schedules were packed with clinical and management meetings; a 10-minute interview was considered a luxury for them. The researcher tried to seek help from the Hong Kong Medical Association and the Hong Kong Academy of Medicine to recruit more doctors, but they declined to help. My local employer, the former Cluster and Hospital Chief Executive in the Hospital Authority, strongly advised against further recruitment using more radical approaches such as telephoning or emailing GPs directly as this could create a nuisance to the doctors. In the end, two boosting rounds of postal invitations were sent 2 months and 9 months after Phase 1.

3.2.7 Data collection

Fourteen GPs and five senior managers were interviewed at the JCSPHPC (n = 7), or at the working institution of the participant (n =10), or in a nearby private meeting or conference room (n =2) between November 2016 to December 2017. The researcher conducted semi-structured interviews with the use of a discussion guide to facilitate flow, depth and direction of the interview discussion (Appendices 13 and 18). The guide was used to draw the participant back to fulfil the study objectives in the event that discussions drifted off topic (Leung & Savithiri, 2009; Morimoto et al., 2015). The majority of the participants were bilingual, with their first language being Chinese. They were allowed to choose whether to conduct the interview in Chinese or English.

For pilot testing, the researcher invited two colleagues who were academic GPs to pre-test the Chinese and English topic guides. They suggested some minor amendments to wording and offered a concrete medication example of "Metformin" in the supplementary information sheet (Appendix 20). The researcher did not include these academic GPs in this study as they were full-time academics at the university who saw patients only occasionally at the outpatient clinics for research purposes.

3.2.7.1 Semi-structured interviews: GPs

The interviews were held in one of the chosen locations in which the participants felt most secure and comfortable. To encourage GPs to open up, the researcher started the interview with a set of general and open-ended questions about their age, education, professional training and clinical practice background (Flick, 2014). During GP interviews, the researcher briefly explained the key concepts of SDM and organisational culture using a short introduction. The rest of the questions then covered themes on how GPs approached patients with multiple health conditions, who took the lead in deciding

about treatment options, the different consultation styles they adopted and their favoured approaches, their understandings of organisational culture, and potential facilitators and barriers influencing their consultation style.

3.2.7.2 Semi-structured interviews: Senior managers

The interviews with senior managers were conducted using the same process for GPs described in Section 3.2.7.1. Questions in the senior manager interviews covered themes regarding their perceptions of the organisational culture (and subcultures) for medication consultations within the organisation, the importance of and any aspirations to build an SDM culture, their response to the facilitators and barriers to SDM GPs reported in their interviews, as well as ways of fostering SDM culture if it was already in place (Appendix 19). Initially, the interviews with senior managers were planned to commence after GPs' interviews, allowing the managers to comment on a list of GPs' perceived barriers to patient engagement and information exchange. This would have provided an additional perspective on GPs' perceptions and experience of patient-centred styles, enriching the findings of this thesis. However, I had to conduct interviews with the senior managers on their preferred dates to avoid losing their interest in participating. During the interview, I presented them with the latest perceived barriers summarised from GPs' interview. Subsequently, after the saturation of data in the GPs' interviews, I invited all the senior managers for a second interview to comment on the finalised GPs' barriers, but only one of them participated and provided deeper insights on healthcare financing and resource allocation mechanisms. The difficulties of recruiting senior managers were explained above in 3.2.6.

All interviews were digitally recorded, allowing the researcher to concentrate on the flow and content of the interviews rather than taking in-depth notes. Audio recording is important to collect interview data in qualitative research (Weingarten, Yaphe, Blumenthal, Oren, & Margalit, 2001). Field notes, documenting evidence[4] or any "off the record" disclosures from the participants that helped to aid the research context, were made during or towards the end of the interviews. Reflection notes, documenting researcher reflections, were made at the end of the interviews. These were used to inform and provide context to the data analysis process. The audio-recorded interviews were transferred to an encrypted computer. Anonymised transcripts, 18 of them in Chinese and one in English, were then produced and sent back to the participants for respondent validation. They were happy with the drafts with no further requests for amendments (Appendix 21).

3.2.8 Ethical procedures

The Framework for Research Ethics by The Economic and Social Research Council guided the ethical considerations in the design of the study to maximise benefits and minimise the risks of potential harm from the research (The Economic and Social Research Council, 2015). The six key principles of the framework were addressed to protect all stakeholders (participants, researcher and other collaborators) throughout the research lifecycle (The Economic and Social Research Council, 2015). The study was reviewed and approved by the Chinese University of Hong Kong Survey and Behavioural Research Committee (Appendix 22) and Lancaster University Faculty of Health and Medicine Research Ethics Committee (Appendix 23).

[4] Evidence such as specific names for a medication, patient programs, informational technology tools, locations were recorded

Key issues of informed consent, confidentiality, anonymity and researchers' reflectivity were addressed in this study. Although no sensitive questions were included in the interviews, some participants expressed worries about their personal opinions becoming public, particularly when it came to criticisms about the health system. The researcher emphasised the anonymity and confidentiality of the verbal data; that only anonymised quotes would be published and stressed that participants could stop and withdraw from the interview at any time if they did not feel comfortable. Some participants preferred to disclose some confidential data "off the record". All participants gave a full interview.

3.2.8.1 Obtaining informed consent

The informed consent process was conducted by the researcher at the start of the interviews. Potential participants were fully informed about the study's voluntary nature, purpose, methods, use of the research, participation risk and benefits and participants' rights to withdraw. Participants were reminded that they might withdraw their participation, or their data without giving any reason up to 2 weeks after the interview (Appendices 10 and 15). Participants were asked to sign the consent form (Appendices 13 and 18) before the commencement of the interviews to confirm that they wished to participate.

3.2.8.2 Anonymity and confidentiality

The researcher recorded the interview using a digital recorder, and six transcribers, who agreed and signed the "Confidentiality Agreement for the Transcription of Qualitative Data" form as included in the ethics application, helped produce verbatim transcriptions of the interviews. Participants' identities were anonymised and disguised by a study

reference number used throughout recordings, interview notes, transcription and dissemination of study.

The true identities of the participants were kept strictly confidential throughout the research process in accordance with the Hong Kong Personal Data Privacy Ordinance (Cap. 486) and Hospital Authority data protection policy (Hong Kong Hospital Authority, 2015c; Privacy Commissioner of Personal Data in Hong Kong, 2017). The data were separated from identifiable individuals to maintain the confidentiality of data and records, with the exception of the consent form, which is the only document which has their name and signature on it. Hard copies of the consent form and other study notes were kept in a locked cabinet within the researcher's locked office. If participants had selected to be interviewed at their practice, they were reminded to be aware that the others in practice might know that they were taking part in the study. Within 48 hours of interview completion, the notes and recordings were transferred and stored as encrypted files on a password-protected computer. The digitally recorded interviews were deleted from the recorder immediately after file transfer was secured. The participants were also reminded that a person external to the research team would be transcribing the anonymised audio-interview data for data analysis under a signed confidentiality agreement. The transcripts were anonymised by removing any identifying information, before being stored as encrypted files on a password-protected computer.

3.2.8.3 Positionality

Reflexivity involved reflecting on the conceptual baggage, which "is a record of your thoughts and ideas about the research question at the beginning and throughout the research process. It is a process by which you can state your assumptions about the topic

and the research process" (Kirby & McKenna, 1989, p. 32). Prior to data collection, I had the impression that the majority of GPs in Hong Kong tend to favour a paternalistic communication style. This assumption was based on the reported outcome of nearly 80% of patients who were not involved in their care decisions from the first patient survey in Hong Kong (Wong et al., 2012). I also have an understanding that GPs have a high concern for confidentiality and anonymity. They are extremely cautious in what they say to researchers or the press, aware that what they say may eventually be made public. This may be associated with the anti-authority influences among the younger generation in Hong Kong society.

Reflexivity is defined as "the process of examining both oneself as a researcher, and the research relationship" (Hsuing, 2010). I was aware that the researcher's influence was unavoidable and saw the interview itself as one of the social contexts in which GPs could make meaning of their experience. My experience of holding dual nationality and having been educated in both HK and the UK enhanced the interview context with the GPs. I am able to fully understand the societal hierarchy or beliefs about medicine or healthcare services from the perspective of a dual Confucius-Western culture. In the current study, this type of dual educational background was commonly seen as natural among GPs in HK to deliver their own improvised types of treatment consultations. Many of the GPs were born in HK, and received a medical education offered by the local universities which are closely linked to and modelled on that of UK education. Another unique position is that I work both as a part-time manager in a private hospital and as a part-time lecturer in a public hospital. This allows me to acknowledge the two tremendously different workplace cultures between the public and private sectors driven by the ownership, purpose and industry focus of the respective organisations. My

presence in both public and private healthcare organisations enabled me to go deeper into the analysis and draw richer themes and conclusions by comparing the similarities and differences of cultures on management style, financing policies, service focus and GPs' training.

During the interviews, I opened up the conversation by introducing my personal background with a full explanation of why I chose the research topic. Most of the participants' appeared more supportive when they felt the research study was part of my PhD. I applied useful insights as a hospital manager and knowledge as a lecturer in the fields of public health, to obtain rich data for my research. For example, some of the GPs from the private sector shared deeper information when they realised that I knew the pricing mechanism in private hospitals and was familiar with the disparities between the public and private sectors.

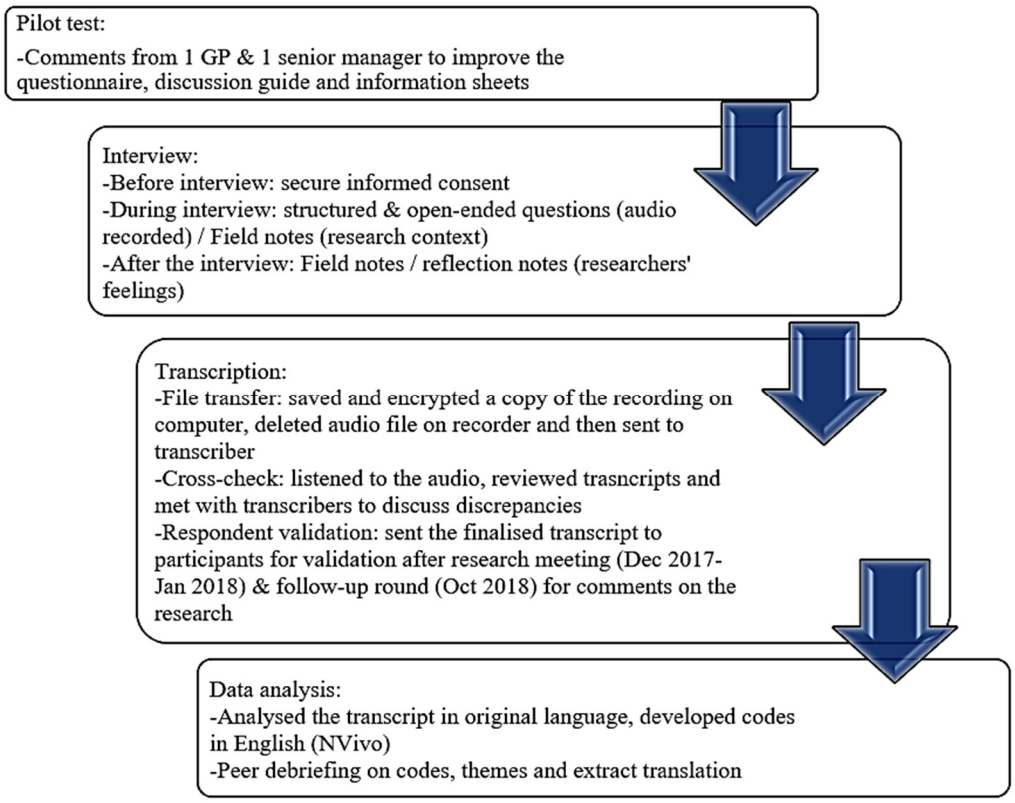
Overall, I listened to the GPs attentively and grasped the right moment to probe deeper for the underlying reasons or meanings behind their comments without upsetting the participant. I tried to gain their trust by acknowledging GPs' professional jargons such as 'HA', 'PPP' and 'CMS' when addressing their comments. Towards the end of the interview, some participants even disclosed some extremely personal thoughts "off the record". All of the above deepened the exploration of GPs' and managers' perceptions of organisational culture and consultation styles throughout the research process.

3.2.9 Data management

The researcher completed the transcription of the first interview, and six additional student-helpers with a background in public health transcribed the remaining interviews. To ensure consistency and quality, the researcher trained all transcribers to transcribe the interviews based on the Drew (1995) template (Appendix 24), paying special

attention to mark features such as sounds or emotions which can be heard in the conversation. Transcribers were also reminded to pay attention to the organisation of the conversation, such as turn-taking and pauses between the researcher and participant's turns. All the transcribers were required to send a five-minute sample of transcribed data for approval before starting full transcription. They could only proceed after the researcher had listened to the recording, reviewed, and approved their sample transcript. At the end of the transcription, the researcher listened to the recording once again and marked any discrepancies on the transcripts. A research meeting was held between the researcher and transcribers to discuss any potential discrepancies, and to make decisions to maximise the validity of the transcripts. The transcripts were then sent back to the participants for respondent validation from December 2017 to October 2018. Five participants stated right after the interview that they did not wish to validate the transcript, so the transcripts were not sent to them. Ten participants replied that they were satisfied with the transcription with no further comments after. Four still did not reply after the second round of invitations.

Figure 6 Flowchart to summarise key data collection and analysis processes



3.2.10 Data analysis

This section describes the characteristics and key stages of thematic analysis in the current study. Compared to other qualitative approaches such as content analysis and interpretive phenomenological analysis, thematic analysis provides a flexible way to extract a rich and detailed description of the data from different demographic contexts and theoretical perspectives (Braun & Clarke, 2006; Flick, 2014). Thematic coding tends to have a stronger exploratory focus on individual participants' views than content analysis. A series of inductive and deductive coding approaches were adopted in the analysis, shaping codes into a meaningful thematic structure (Flick, 2014). This was complemented by the use of field notes, reflection notes and self-reflection on the researcher's thought processes to inform the decisions made across analytical stages on the construction of the codes and themes. The use of theoretical and analytical frameworks is also reported at various stage of the analysis. To manage the data, NVivo

was used to organise the codes into themes and subthemes, exploring different possibilities of data analysis and interpretation within the dataset.

Braun and Clarke's (2006) key stages of thematic analysis through transcription, coding, analysis and reporting of results which are discussed in Sections 3.2.10.1 to 3.2.10.6 below.

3.2.10.1 Revisiting the dataset

The researcher listened to the audio interviews to double-check the accuracy of the transcripts. In the analysis stage, the field notes and reflection notes were important records on how the researcher made sense of the participants' words, thoughts or emotions during the interview. Revisiting the interviews helped me look for patterns and meanings, and fully grasp the depth and breadth of the participants' perspectives when actively reading the transcripts, field notes and reflection notes. The researcher was also aware of the chosen constructivist paradigm and paid attention to how events, realities, meanings and experiences were socially produced in GPs' interaction with patients with chronic disease. The researcher made notes on any ideas and thoughts for coding along the way.

To enhance the sensitivity and depth of exploration, and in line with thematic analysis (Braun & Clarke, 2006), the researcher conducted background reading on how organisational culture was manifested as a kind of social experience or interaction in healthcare communication contexts (Schein, 2004). The researcher did not bring to bear any preconceived framework on how organisational culture would be described in the data set.

3.2.10.2 Generating initial codes

This study adopted an open, selective and inclusive coding method using a priori and emerging codes (Appendix 25). Full attention was given to each data item manually (by using coloured pencils and writing notes), and it was then entered into NVivo. A priori codes were generated from an active reading of the interview guide, research questions and Charles et al.'s (1999) theoretical framework on different consultation styles. Emergent codes were generated from thoughts and ideas from an active reading of transcripts, field notes, reflection notes, as well as listening to the audio interviews.

To explore both the surface and underlying meanings and patterns in the transcript, a line-by-line open coding approach was used to capture potential patterns without constraints from the epistemological perspective, research questions, theoretical or analytical frameworks. This step yielded a variety of codes and patterns to inform the development of themes. Next, a selective coding approach was used in selected parts of the transcripts related to the research questions, informed by the analytical framework of Hofstede's cultural dimension theory and the Hofstede multi-focus model of organisational culture (Table 2 and Table 4). To make sense between the codes, an inclusive coding method where part of the surrounding comment or data was kept for each code. Furthermore, a constant comparison method was used to label, compare and sort codes systematically into meaning groups, reflecting the underlying ideologies, assumptions, conceptualisations from the transcripts to answer the research questions. The codes were entered into NVivo to visualise the patterns and ensure all data extracts were coded and sorted together within each theme.

3.2.10.3 Searching for themes

In this study, a theme is a patterned response which captured a type of behaviour, assumption made by the participants or meanings expressed by them such as the themes

described the involvement of patients in discussing symptoms, preferences, risks and final decisions during consultation in Chapter 2 (Table 7) (Braun & Clarke, 2006).

The distinct themes identified in this study emerged from the entire dataset. To answer the research questions, themes were formed by sorting the relationship between codes and themes into the main themes, subthemes and orphan themes. The analytical frameworks, Hofstede's cultural dimension theory and the Hofstede multi-focus model of organisational culture (Table 2, section 2.2 and Table 4, section 2.2.2), provided insights to interpret the themes related to organisational and national culture. A thematic map was drawn to visualise the relationship between different themes and subthemes (Appendix 8).

3.2.10.4 Reviewing the saturation of themes

Theme saturation was reached in the dataset for GPs but not for the managers. Identified themes were refined, expanded, collapsed or reworked at this stage to achieve internal homogeneity and external heterogeneity within and between themes, coded extracts and the entire data set. Theme saturation was determined through two crucial procedures when no new concepts emerged from the dataset. Firstly, all collated extracts were critically examined for their fit within the theme and to determine whether a coherent pattern was formed. The decision was made to rework or create new themes if the current themes were not coherent or not supported by sufficient data across the dataset. Otherwise, the researcher made decisions on reorganising or discarding coded extracts if they did not fit into the themes. Secondly, to check for validity between themes, the researcher re-read the entire data set to see if there was a clear and identifiable distinction between themes in the dataset and coded any extra data which may have been missed in earlier coding stages. The thematic map was updated to visualise the refined relationship between themes. Corbin & Strauss (1998) indicate that theoretical

saturation is reached when nothing substantial at this reviewing stage is added to the thematic framework, which means until "no new or relevant data seems to be emerging regarding a category, the category is well developed in terms of its properties and dimensions demonstrating variation, and the relationship among categories are well established and validated" (Corbin & Strauss, 1998, p. 212).

3.2.10.5 Defining and naming themes

Each theme and collated extract were reviewed and organised into internally coherent subthemes according to its definition. The researcher then wrote precise names and descriptions to test and clarify the expressions, scope and content for each theme (Table 12). This step ensured the perspectives of the themes did not overlap yet fitted the broader dataset and answered the research questions.

3.2.10.6 Final analysis and write up

The final step consisted of providing a thorough analysis within and across themes using a descriptive and analytical account (Chapter 4). The final analysis is supported with sufficient data extracts to demonstrate the prevalence of themes. Supporting examples which capture the essence of the themes are also presented in Chapter 4.

3.3 Credibility and rigour

Hadi and Closs (2016) proposed criteria to improve the trustworthiness of qualitative studies 1) triangulation of different data sources, 2) clear description of the researcher's position, 3) appropriate methodology that is aligned with the methods, and 4) clear approach to data analysis. Firstly, this study collected the views of GPs and senior managers and triangulated this by inviting senior managers to comment on a summary table of GPs' barriers to practising SDM (Flick, 2014). Secondly, the position and reflections of the researcher were described in detail in section 3.2.8.3 to acknowledge

the researcher bias that is unavoidable in most qualitative research. Nevertheless, the researcher has tried to be explicit about her assumptions, minimise bias, and promote the credibility of the findings. Thirdly, the use of semi-structured interviews and thematic analysis are concordant with the constructivist paradigm discussed in the previous literature (Braun & Clarke, 2013; Elwyn, Edwards, Gwyn, & Grol, 1999; Lipman, 2004).

In addition, credibility is further strengthened by respondent validation from participants and peer debriefing from academic supervisors (my PhD supervisors criticised and commented on the data analysis procedures) (Hadi & Closs, 2016). All participants were satisfied with the transcript with no further comments after respondent validation. Rigour is further demonstrated by a clear audit trail in the code and theme development (Hadi & Closs, 2016). Lastly, the thematic analysis closely followed Braun & Clarke's (2006) constructivist approach of thematic analysis, as discussed in Section 3.2.10.

3.4 CONCLUSION

This study explored GPs' perceptions of organisational culture and how it influenced their consultation styles, using a qualitative methodology. Constructivism, as the chosen ontological and epistemological stance, recognised that GPs' perceptions of organisational culture could be influenced and constantly evolving through the social interactions among GP-GPs and GP-managers within healthcare organisations. These stances also guided the data collection methods, which used in-depth individual interviews to explore the inner world of primary care GPs and senior healthcare managers. There were challenges in recruiting GPs due to the stressful work ethic,

workforce shortages in the public healthcare sector and lower preference for qualitative research which required them to disclose personal opinions and feelings towards the organisational culture in Hong Kong. With the help of the reputation and network at my workplace, nineteen participants were interviewed. Compared to phenomenological or discourse analysis, thematic analysis was more flexible without a theoretical root to extract and interpret rich descriptions of participants' experience. Without theoretical or paradigm constraints, it allowed the emergence of themes which encompassed the knowledge of organisational culture's influence on GPs' consultation styles across various complex contexts (e.g. the health system, organisational and individual levels as well as public and private healthcare contexts). Furthermore, the reflexivity of the researcher's position towards the participants helped reduce power differences, built trust, facilitated a more engaging interview and deepened insights towards data interpretations. The next chapter describes the synthesis of themes and the results from the thematic analysis.

CHAPTER 4 GPS' VIEWS ON ORGANISATIONAL CULTURE IN PUBLIC AND PRIVATE ORGANISATIONS IN HONG KONG - THEMATIC ANALYSIS

4.1 Introduction

This chapter describes the characteristics of the study participants and reports the findings of the thematic analysis. Four central themes and ten subthemes emerged from the dataset and are presented in Table 12. The first theme discusses the health system, practice and individual factors influencing GPs' perception of organisational cultures and their consultation style. The second theme explores GPs' perception of how organisational cultures influence their readiness to use different consultation styles. The third theme explores how GPs' perception of national cultures influences the trust between GP and patients when it comes to mutual participation in treatment decisions. The last theme reflects upon the financing and service level initiatives to drive cultural changes among GPs towards patient-centred care.

4.2 Participants' characteristics

A total of nineteen interviews were conducted with two groups of participants, namely 14 GPs and 5 senior managers (Table 10). All the participants were Chinese except for one private GP who was Irish, and who trained and practised medicine in the English language. From private healthcare organisations, three male specialist GPs in family medicine, three male GPs, one female GP and two male managers participated in this study. From the public sector (the Hospital Authority), five male specialist GPs in family medicine, one female specialist GP in family medicine, one female GP and two male managers participated in this study. Lastly, one male manager from the Hong Kong College of Family Physician also joined the study. Overall, the GPs had an average age of 37 (SD = 5.60) and 11 (SD = 5.7) years of primary care experience. Compared to the

public GPs, the private GPs had an average of two additional years of primary care experience. Correspondingly, the managers who participated in this study had an average age of 46 years (range = 37-55) and 12 years (range =7 - 17) of healthcare management experience. Regarding professional development, one reported no prior exposure to management training while three managers received training provided by their public and private organisations. To learn more, two of them attended supplementary management programmes offered by universities in Hong Kong, the United States and New Zealand.

Table 10 GPs' practice and training characteristics

	Role (Specialty) FM=family medicine	Age	Gender	Years of FT experience in primary care (Senior= ≥10 years)	Qualified to practise FM in these countries	Basic & FM trained in	Location of practice	Participated in SDM# workshop	No. of GPs in current clinic location*	Average patient load -weekly
P1	Private (FM)	42	M	17 (Senior)	Australia & HK	UK	Urban	Yes	10	150
P2	Private (GP)	34	M	5 (Junior)	N/A	UK	Urban	No	4	230
P3	Public (FM)	29	F	4 (Junior)	Australia, (HK in progress)	HK	Urban	No	10	362
P4	Public (GP)	31	F	1.5(Junior)	N/A	HK	Urban	Yes	12	330
P5	Public (FM)	33	M	8 (Junior)	Australia & HK	HK	Urban	No	10	314
P6	Public (FM)	29	M	6 (Junior)	Australia & HK	HK	Rural	No	3	250
P7	Private (GP)	38	M	10 (Senior)	N/A	HK	Urban	No	5	300
P8	Public (FM)	38	M	14 (Senior)	Australia & HK	HK	Suburban	No	10	150
P9	Public (FM)	34	M	10 (Senior)	Australia, (HK in progress)	HK	Urban	No	10	390
P10	Public (FM)	48	M	22 (Senior)	Australia & HK	HK	Suburban	No	6	340
P11	Private(FM)	41	M	16 (Senior)	Australia & HK	UK	Urban	No	6	40
P12	Private (FM)	37	M	12 (Senior)	Australia, (HK in progress)	HK	Urban	Yes	3	250
P13	Private (GP)	40	M	14 (Senior)	N/A	HK	Urban	No	3	360
P14	Private (GP)	43	F	15 (Senior)	N/A	UK	Suburban	No	4	220

Table 11 Senior managers' practice and training characteristics

Ref	Nature of practice (specialty)	Age	Gender	No. of full-time (FT) GPs in the organisation	Years of FT healthcare management experience	Previous management training (Country)	Participated in shared decision-making workshop
M1	Private (others*)	37	M	130	12	MBA, HSM (HK, US & New Zealand)	Yes
M2	Public (FM)	55	M	90	13	HA management training (HK)	No
M3	Public (FM)	43	M	90	10	HA management training, university (HK)	No
M4	College (FM)	53	M	1500	17	No	No
M5	Private (others*)	41	M	140	7	Corporate training (HK)	Yes

**Anonymised to protect participant's identity*

#SDM=Shared decision-making

4.3 Thematic Analysis

Four main themes and ten subthemes emerged from this thematic analysis to answer the research questions concerning GPs' perspectives.

Table 12 Theme table

Theme	Subtheme
1. GPs' perception of system-, practice- and individual level factors influencing their organisational cultures and consultation styles	**1.1 GPs' awareness and practice of different consultation styles** Description: GPs' perception of SDM-related concepts and other patient-related factors promoting or inhibiting GPs' practices using patient-centred consultation styles.
	1.2 GPs' perceptions of how financing and practice standards influence their organisational cultures and consultation style Description: The differences in service payment methods, medical training and service standards influencing the service focus, management style and learning culture across public and private GPs in Hong Kong.
	1.3 GPs' perceptions of the influence of service coordination on their use of different consultation styles Description: The influence of differences in resource allocation policies, work rotation policies and time constraints across the public and private sectors on GPs' use of consultation styles.
2. GPs' perception of how organisational cultures influence their readiness to use different consultation styles	**2.1 GPs' perception of the role of service focus in determining the way they consult patients on prescriptions** Description: The differences in focus between patient- and profit-oriented services and how they influence the patient-centredness of GPs' consultation style in terms of information sharing and making prescription decisions.
	2.2 GPs' perception of how managerial control influences their confidence with unexpected prescription requests from patients Description: The differences between authoritative and participative management styles across public and private organisations, and how they influence GPs' confidence to practice a patient-centred style with patients requesting unexpected treatments.
	2.3 GPs' perception of learning culture and how it influences their readiness to use patient-centred consultation styles Description: The differences between mandatory and voluntary learning cultures around family medicine across public and private organisations, and their influence on GPs' perceived readiness to use patient-centred styles in clinical practice.
3. GPs' perception of how national culture influences trust in the GP-patient relationship regarding mutual participation in treatment decisions	**3.1 Conflicting traditional and modern societal values towards authority in Hong Kong and their influence on the mutual trust and rapport in GP-patient relationships** Description: The conflicting dynamic among the respectful older and distrusting younger patients towards medical authority figures and its influence on what patients expect from and how they utilise healthcare services.
	3.2 GPs' perceptions of Chinese patients' attitudes towards western medicine and their influence on GPs' willingness to involve them in treatment decisions Description: The Chinese cultural belief in western medicine and its influence on GPs' perception of patients' desire for mutual participation in treatment decisions.

4. Financing and service level initiatives to drive cultural change among GPs towards patient-centred care	**4.1 Strengthening transparency and fairness in healthcare services to reduce the workload of public GPs in the interests of patient-centred care** Description: Managers' recommended initiatives such as increasing transparency; restructuring pricing and resource allocation systems, and boosting subsidies in current public-private partnership schemes to encourage older patients to take up more private services.
	4.2 Strengthening care processes and health information systems for decision making to allow GPs more quality time for patient-centred care Description: Managers and GPs' recommended initiatives such as the development of decisional support platforms, care and processes redesign, and professional training to save time on knowledge transfer and allow more time for discussing patients' needs.

4.3.1 Theme 1: GPs' perception of system-, practice- and individual level factors influencing their organisational cultures and consultation styles

The first theme addresses the system, services, GPs and patient factors influencing GPs' perceptions of organisational culture, consultation styles and approaches.

4.3.1.1 Subtheme 1.1: GPs' awareness and practices of different consultation styles

When the GPs and managers were asked about SDM, the majority reported that they welcomed it, and showed various understandings of the concept and its components. Some GPs said they had not seen the Hospital Authority document in which patient engagement has been stated as one of the strategic goals for elderly services targeting chronic disease management in primary and hospital care since 2012 (Hong Kong Hospital Authority, 2012). This is why a few GPs struggled to understand and describing their engagement in SDM during the interview. Other responses from GPs to the SDM concept included the perceived benefits of engaging patients in improving treatment adherence and patient satisfaction. Some GPs recalled from personal experience and professional training that SDM could also promote the idea of shared responsibility in a more mutual consultation style with patients. However, the views of the majority of the GPs regarding their awareness of SDM were not aligned with their consultation practices. Many GPs assumed that most patients with the chronic disease could not engage as equal partners because of their insufficient medical knowledge and, as one GP expressed it, their "deep-rooted inaccurate" health beliefs (P4). For example, one public GP said: "Hmm ... Very difficult because it's hard for patients to know all the side effects of all the medications or which ones are more effective. If they don't know about this, it's hard to be equal!" (P4). Commenting on Charles et al.'s (1997) decision-making framework (Figure 1), some GPs reported frequent use of SDM style,

while others considered paternalistic approaches were more appropriate in practice. Only a small number of GPs reported the use of an informed style, and that was limited to consultations with highly educated and informed patients.

Interestingly, many public and private GPs described a mix of paternalistic and shared models as the most appropriate and practised style to engage and share information with patients. Some GPs described treatment decision-making as a doctor-driven process as it was seen as their job to narrow down effective choices for patients instead of overwhelming them with all available options. A GP recalled:

> I give all the minimum information, but I also tell them the risks and benefits and… Let's say I have decided they have diabetes, and the best drug for them is metformin. I just tell them the diagnosis, the manner of taking drugs, the frequency, the possible risks and benefits, and other physical and psychological effects. But I wouldn't really tell them, there is another type of medication called B and this one called C, and if you compare them, it's like this, it's like that. I will decide and give them that information (P2, private GP).

Other GPs saw treatment decision-making as a partly shared process in which GPs explored with patients whether the treatment options aligned with patients' expectations, listened to their concerns and provided feedback before patients made the final decision, as one GP described:

> For a common condition like hypertension, we will follow some international guidelines. Considering your age, other complications or co-morbidity, I will recommend a few options. If the patient wants to know more, we can tell them more and discuss it further. For example, some medications you only take once

a day, or maybe twice for the older versions, then they can decide (P12, private GP).

A common view among many GPs was that they tended to start off the consultation with a more paternalistic style, leading the flow and discussion as well as observing, analysing and prompting if the patients responded well to the doctor-centred style. Most managers emphasised that GPs were very sensitive to patients' emotional and verbal responses during the consultation, which may shift the decisional power back and forth between a more patient-centred and doctor-centred consultation. However, some GPs and managers were particularly uncomfortable about the informed style. For instance, one of the public GPs, when asked about it, said he felt not only disrespected under the patient-dominant informed model, it also blocked his professional practice. He argued that SDM allowed more mutual respect between patients and GPs: "If you say the patients get to decide everything, you will feel a bit irritated and a bit angry, then what am I to you? Therefore, a shared model is the best, the most comfortable" (P5). Commenting on the different consultation models, however, some GPs expressed concerns that engaging patients through the informed or SDM style might trigger unreasonable requests for extra services or medications. Some GPs stated their preferences for a doctor-centred consultation style.

Undoubtedly, some GPs and managers believed that the current trend in healthcare policy and practices was shifting towards a patient-centred approach. A variety of views were expressed about information sharing and patient engagement in the SDM style. Some GPs stated that younger GPs, particularly those with FM training, were more open-minded about the concept of SDM, whereas they felt that older GPs with more experience (around 20 years) but no previous FM training still embraced the doctor-

centred consultation style. A public GP and manager commented that GPs' character influenced their perception of and attitude towards different consultation models:

> For example, there are some more gentle GPs and some with more authority… it depends on your own character. Maybe because I can't be very authoritative, I'm inclined to be gentle…sweet-talk…there's no single best approach. It depends on what fits your character, which style is acceptable to you (P3).

One objection expressed by most of the GPs and managers was that providing all the treatment options and outlining related side effects to patients was seen as unpractical and time-consuming. Rather, some GPs and managers argued that they would screen, select, and disclose one or two clinically effective choice and associated common side effects using their knowledge and expertise. Further explanations from the majority of GPs revealed that the clinical context and the availability of medications also influenced how they prioritised and presented options to patients. Some GPs and managers felt that SDM was favoured for discussion of non-emergency chronic conditions without clear evidence of which alternative treatments were most effective or harmful, while others considered a paternalistic style to be more suitable for making quick decisions on life-threatening conditions such as ischemic heart disease, where there is clear evidence of the most effective treatment. As one manager clarified:

> With some conditions, you can't use shared decision-making. For example, with some acute or life-threatening conditions, you do not get a chance to ask the patients. For example, some colleagues from the accident and emergency department are not into SDM. Patients are bleeding, so why would I ask so many things? Also, with some cancer surgeries, there is really just one best way to treat these (M2, public manager).

Turning now to patient-related factors, many GPs and one manager reported that

patients' socioeconomic status (SES), education level, age, perceived ability to afford different options, personal character and expressed needs all influenced their consultation style. For example, one public manager explained that patients of higher SES and richer geographical areas preferred SDM, and that GPs tend to offer more alternatives and go deeper into the side effects and preferences with these patients. Many public and private GPs expressed a trend towards using the SDM style along with more feedback from better-educated patients in the treatment discussion process:

> If patients' level of education is not too high, you say, "your cholesterol level is high, let's start medication". After a few words, you can see if they want to take it. It's easy for us to find out. Or if you see some more educated patients, they will ask a bit more. For example, how long does the medication last, are there any complications, when would the next follow-up check be, or another related issue. At this point, it shifts to SDM (P7, private GP).

Most GPs and private managers shared a feeling of incompetence and indecisiveness when sharing decisions with patients from lower SES. The reason was that these patients were easily intimidated if GPs tried to find out their preferences and offered too many treatment options, particularly non-subsidised ones with extra charges attached. Other GPs and managers identified a knowledge gap between the older (65+) and younger generations, with the latter more open to SDM, expressing their needs and sharing their views proactively with the GPs. For example, one manager explained:

> Er… I think in general patients, especially older ones, are not used to patient engagement. The new generations, they can because they know their rights, they're more educated and give more feedback. The older ones, especially the elderly, are very passive. They won't ask questions, and it's very difficult to change them" (M3, a public manager).

The term “resistant patients” was used by the majority of public GPs to refer to patients showing a hostile attitude when GPs disagreed with their beliefs or preferences. Public GPs explained that the presence of resistant patients immediately led them to shift their consultation style to a paternalistic or informed model as a way to avoid conflicts, with minimal one-way communication. On the other hand, most public GPs felt that patients with a friendlier attitude encouraged them to engage in mutual discussion using SDM. Other public and private GPs also reported using SDM to discuss and explore the reasons and impact of poor treatment non-adherence with more complex patients, ensuring no pharmacological harm from taking multiple medications to treat coexisting conditions. However, a few public GPs were reluctant to use shared decision-making with two particular types of patients: “Firstly, we must consider their mentality; it’s not possible with dementia patients, it makes no sense. Secondly, patients can have some strange preconceptions which are hard to get past sometimes. It won’t work as they won’t follow your advice” (P10, public GP). A few GPs also explicitly referred to patients who were seeking medication renewal or sick leave certificates, expressing the opinion that they were not suitable for SDM. One example came from a private GP who reminisced about his first experience of SDM with such a case:

> Um… I tried initially when I started working at the outpatient clinic to use SDM to ask a patient about their condition. When they came in, I asked: “What do you need? How can I help you?” And the patient said, “I only came back for more medication.” Then I said, “Sure, how are you feeling lately?” And the patient said again, “I only want medication, don’t ask me so many questions.” Sometimes in cases like this, you shouldn’t bother them, should you? (P1, private GP).

4.3.1.2 Subtheme 1.2: GPs' perceptions of how financing and practice standards influence their organisational cultures and consultation style

The next subtheme to emerge from the data revealed the macro influences of financing policies on service demand, influencing GPs' consultation styles across the public and private sectors in Hong Kong.

Many public GPs and managers reported a demand-supply imbalance of GPs skewed towards the private sector, "In Hong Kong, around 50% of public GPs are taking care of 90% of patients with chronic diseases" (P8, public GP). A public manager heard complaints from private GPs about losing patients to the public sector after referring them to get a second opinion. The public manager considered the low co-payment of HK$45 (£4.50 sterling), which includes a comprehensive range of consultation, investigations and three months of medication to be too attractive for patients to return to their private GPs with ten times the price and per-item charge for each investigation, consultation and medication. With regard to overloaded public services, some managers criticised a lack of practice scope in the HA for contributing to the reputation for long waiting times in the public system:

> Currently, there is no means-based test across public hospitals and clinics. If a tycoon visits a public hospital today, he can be seen because he is a citizen, can't he? We need a means test to solve the public-private imbalance within the healthcare financing policy (M3, public manager).

In this fashion, some public GPs felt challenged to deliver patient-centred consultation as well as meeting the surging patient quota. A few public GPs also reported that greater freedom and workplace wellbeing were driving their colleagues into the private sector, resulting in a shortage of staff in the HA, leaving less time for the remaining GPs to go

deeper with patients in treatment decisions. A number of GPs criticised the level of system support for being insufficient in the underfunded health system. Some public GPs felt that the long waiting time was the reason for patients' "demanding" behaviour once their turn to seek advice or care finally came. An example was given by a public GP regarding the telephone hotline for appointment booking:

> Actually, this is a system issue because the hospital hotline can never be reached due to high demand. In the end, if the patient gets through, will they let go of this chance to solve their accumulated problems? No, they would present all their enquiries from the last decade in one go (P5, public GP).

Other comments from a public GP and another medical college manager criticised the underfunded training posts in family medicine in Hong Kong for creating an obstacle for GPs to be equipped and ready to consult using patient-centred styles. Commenting on insufficient resources, the college manager was concerned by a scarcity of only 30 family medicine training posts per year to receive SDM training across all Hong Kong hospitals:

> "Where do you live? New Territories East Cluster? It has around [7 hospitals and 10 general outpatient clinics] serving a population of around 1 million in the catchment area. But it seems like the HA is only offering 3 family medicine training posts for GPs in that cluster this year. People may think this is some kind of joke by the government!" (M4, college manager)

Unlike public GPs, a few private GPs argued that a patient-centred consultation style is not feasible under the current business model, which focuses on providing affordable care to mostly insured or employee-sponsored patients. To stay competitive in the

market, most private GPs have limited time for each patient:

> No one would be doing patient engagement. You would be out of business. If you did it probably, you'd spend, like, half an hour with the patients who have, like, several chronic diseases. Then you are gonna be bankrupt. So, I think the financial factor is a big thing coz you know there is a limit. You have staff; you have rent to pay. If you want to do it properly, it's very difficult…unless you charge a lot. But if you charge a lot, lots of people are not gonna come (P2, private GP).

The majority of private GPs reported that they had about 10 minutes to see each patient, but this was still not enough to address patients' multiple chronic conditions using SDM. A common give-and-take approach modifying SDM was adopted by most GPs, depending on the severity of patients' illnesses. For example, they would shorten the time for stable cases using a paternalistic style (3-4 mins per case), and relocate the spare minutes to explore deeper into psychosocial aspects for patients with new, complex or unstable chronic conditions. The comment below illustrates this type of modification of SDM by a public GP when seeing new and follow-up patients:

> SDM is a model for new cases, but they need more than 6 mins. You need time to ask about their family history, personal health history, and do some examination. A treatment discussion session is necessary for new cases. In contrast, for old cases, it is normally rushing through with brief questions, expecting yes as an answer or no questions asked by patients: is your current medication, okay? Any concerns? If not, let's continue like this (P6, public GP) .

A common view amongst most GPs was that a doctor-centred consultation style was the most practical approach to control the flow and smoothness of consultations when there

was limited capacity: “It’s normally a paternalistic style because sometimes efficiency is important in consultation, which means there is a limited time and we want to do it the most direct and accurate way” (P6, public GP).

Turning to the imbalance between public and private services, the government pushed forward a series of public-private partnership (PPP) Programmes led by the HA to try to shift clinically stable patients with hypertension (HT) or diabetes (DM) to the private sector. However, a manager and primary care expert was particularly critical about the low participation rate of private GPs in these schemes due to the HA’s chaotic management. To illustrate, he gave an example of HA’s fragmented services and poor GP management:

> If a private clinic joined the public-private partnership outpatient scheme, some GPs within the clinic could choose not to join one of the influenza vaccination schemes with lower copayment from patients. Then patients would have to get the influenza vaccine from Dr A, outpatient PPP scheme from Dr B and colorectal screening from Dr C (M4, college manager).

One participant said the main issue of the PPP Programme was that the HA welcomed any doctors without family medicine training or chronic disease experience to join as community partners, describing themselves to patients as primary care doctors, which was considered a false description by some managers. Some public GPs also alluded to the notion of PPP Programmes. They revealed that PPP Programmes were worsening their workload because they shifted all the stable patients to the private sector, leaving all the complicated cases which demanded more time and effort to consult.

There was a sense of resentment among some managers and GPs towards the lack of strategic and structural governance from the Primary Care office on the Department of Health and Hospital Authority. One manager gave a dramatic elaboration of the competing and complex working relationship between key public service providers:

> There are two turfs in Hong Kong; the Department of Health and the Hospital Authority. Of course, the HA is on a much larger scale, and it is the boss. The DH is in charge of the colonoscopy screening scheme and the HA is in charge of PPP which is chaotic; they do not know how to utilise the Primary Care office. The DH said: "I will do whatever you ask me to, but better not to ask me to do anything" (M4).

He further exemplified the lack of accreditation for primary care doctors in Hong Kong using an example from UK health systems:

> The government won't do it. You know about the NHS or all the developed countries in the world. If you ask the Secretary of Health: "How many primary care doctors are there in Hong Kong?" She would not know. Why not? Because they do not have eligibility criteria. If you say a primary care doctor must be registered, have met an entry requirement and at least taken an exam, related to medical education, but now there is nothing like that (M4).

4.3.1.3 Subtheme 1.3: GPs' perception of the influences of service coordination on their use of different consultation styles

This subtheme emerged from the data and revealed the influence of policies around work rotation and resource allocation on GPs' consultation style across the public and private sectors in Hong Kong.

A few GPs and managers suggested that another barrier to putting SDM into practice was the rotation policies across public clinics and hospitals, which impeded them in establishing continuing relationships and using patient-centred consultation. For example, one manager listed two main rotation policies which were challenging for patients and GPs in terms of building trust in the consultation:

> I cannot choose patients; both the GPs and patients shuttle around. Today I see you, but four months later I do not. In this circumstance, you cannot build trust and rapport, and you may feel that your patients are not listening to you or they are not interested. Patients' sons and daughters are experiencing this as well, how do I trust you? We advocate SDM because patients could build a rapport with you, but it is hard to build such a relationship in a public organisation. Also, GPs could be transferred to other hospitals sometimes (M2, public manager).

In contrast, some private GPs reported no such constraints in the private sector with supportive organisational policies advocating patients' and GPs' right to choose their healthcare provider or user as well as matching GPs' doctor-centred or patient-centred skillset to the right community. As explained above in regard to policy differences between the public and private sectors, one public GP sensed that patients still trusted the GPs they interacted with more frequently despite the fact that all public GPs treated patients based on health information from the same source.

Time constraints were mentioned as a critical barrier to patient-centred consultation, particularly for SDM. A frequently expressed comment among public GPs was that the healthcare resources such as the availability of the workforce and clinic facilities were allocated based on the projected service demand for a geographical region. Some concerns from GPs were expressed about the way resource allocation was currently

done. For example, one public GP felt that the HA did not take into account the need for more time for GPs to provide patient-centred care, and that they only compared efficiency rather than patient experience as a performance indicator of hospitals (P8, public GP). For this reason, some public GPs admitted that SDM was not feasible; conflicts may arise from a tense communication climate when GPs are trying to rush through the consultation with patients. A common view amongst GPs was that their FM training taught them to go through SDM with patients in a 20-minute session. As has already been noted in connection with financing barriers, GPs were only given six minutes to do so in reality. One disappointed public GP commented:

> In fact, they train us perfectly, and you want to use it, but they only give you 6 mins, which means nothing can be done. Then it is easier for you to get… burnt out as you cannot achieve what you want to do achieve every day (P5, public GP).

The relationship between the Department of Health (DH) and HA gives rise to fragmented care at the health system level, impeding the kind of continuing relationship between GPs and patients that would allow SDM to happen. At the organisational level, there is a disappearing continuity of care, with the lack of an electronic medical record platform (EMR) across public and private healthcare organisations, leading to fragmented coordination of care and a communication gap between GPs and patients. For instance, a private manager reported that although public and private organisations owned their versions of EMR, aside from standardised diagnoses and procedure codes, there were huge variations across GPs' written expressions and documentation style. Another manager reported that some GPs failed to use the built-in, smart-reading features to their fullest potential, wasting time to repeatedly review and record patient details:

> When we open the system, there is a lot of built-in information across different windows. For example, the question mark means the patient has not had a blood test for a long time. GPs can see it at a glance; they don't have to ask, do they? Moreover, you don't have to read the free-text information every time, so it speeds things up. I take a look and then I know the patients' history as soon as they enter the consultation (M2, public manager).

4.3.2 Theme 2: GPs' perception of how organisational cultures influence their readiness to use different consultation styles

Description: Several subthemes relating to organisational culture emerged as values and beliefs in clinical practices in various aspects of patient care, management style and medical training among public and private GPs in Hong Kong.

4.3.2.1 Subtheme 2.1: GPs' perception of the role of service focus in determining the way they consult patients on prescriptions

Under the service-driven economy in Hong Kong, GPs from the public and private sectors are expected to fulfil their customers' needs using a more patient-centred consultation style aligned with different corporate values (Hong Kong Hospital Authority, 2018e). Overall, some senior managers expressed the view that the patient-centred styles of public and private GPs were different, shaped by the customer-driven versus profit-driven cultures, which were in turn driven by corporate goals, healthcare financing and organisational policies such as clinical processes and expectations of the top management.

Without the market-driven pressure in the public sector, most public GPs and managers described patient-centeredness as core values and part of the universal care mission of

healthcare services. This view was expressed by a GP about the consultation process and outcome: “I think the patient outcome and satisfaction would be better, and the doctors would be more like people person rather than consultation machines”(P5, public GP). Using the SDM style, many public GPs and managers rediscovered a lost sense of ownership in the treatment process. They were well-trained to explore patients’ information needs and concerns as well as actively involving them in the treatment process using the various questioning techniques, consultation frameworks and communication skills, as described by one GP:

> Before making a diagnosis, we will learn more about the patient if he is willing to start treatment. We care a lot about the patient’s opinions, and at every step in the discussions, we will ask if he has any questions or concerns. I will try to encourage him to participate in the discussion actively (P8, public GP).

On the other hand, many private GPs and managers described profit-making as the core values of their organisation. A private GP stated, “It is the same values in any other business, and you make money” (P2) and other private GPs described providing affordable and competitive care as the mission of their healthcare services. A private manager admitted the organisation expected GPs to attract and retain patients, ensuring sustainable revenue as self-funded patients may visit multiple doctors about their illnesses in the private market. Another private manager reported there were around 70% insurance or corporate-sponsored and 30% self-funded patients. Both private managers from the medical groups said very few patients returned for a second visit and most were lost to other healthcare providers. Therefore, some private GPs emphasised that the right consultation style was the style preferred by patients, building rapport through exploring the purpose of their visit, their treatment preferences and their willingness to communicate about health decisions. A private GP said: “So you need to

know each patient regarding how involved they want to be, and then you decide, and you know… It is the best if that's what the patient wants but if it's not best that's not what he wants." (P2).

Another important aspect of the customer-centred culture reported by public GPs and managers was the information support from the HA. This included a self-service information machine for public education in some clinics; extra nursing support on medications for diabetes patients in the Risk Assessment and Management Programme (RAMP); extra mental health counselling from nurses or social workers in the Integrated Mental Health Programme (IMHP); educating chronic disease patients to self-manage symptoms, medication and healthcare communication in the Patient Empowerment Programme and the patient-support call centre for general information needs. Commenting on this support, one public GP said they could request that a pharmacist educate patients with more complex medication plans or medical devices at the dispensary, but that this is not a routine or formalised service. However, some public GPs and private managers expressed concern about the little incentive or organisational support for nurses or pharmacists to explore deeper or answer patients' questions regarding medication or disease management. Other than structural support from the HA, patient experience was listed as one of the key performance indicators for GPs' competency in the public sector (Hong Kong Hospital Authority, 2017a; Wong et al., 2012) Some public GPs had a sense of achievement when their patients came back with stabilised test results and a self-empowered attitude to manage their chronic conditions. The terms "denial" or "resistant" were used by some public GPs to describe patients who were not considered to listen or communicate with the GP and displayed negative responses towards GPs' medical opinion. For example, a public GP described the

negative impact of consultations with resistant patients who did not follow her advice. She described how, faced with such negative responses from the patient, she shifted her consultation style from patient-centred to doctor-centred, and then back to patient-dominant when she was about to give up on the patient:

> Denial patients wish for the informed style but considering the time limit, and the fact that I am a bit impatient, I want to use a paternalistic style instead. When a paternalistic style is not working, I give up. Then we go into an informed style, and I will just do what they want (P3, public GP).

4.3.2.2 Subtheme 2.2: GPs' perception of how managerial control influences their confidence with unexpected prescription requests from patients

There were differences in management styles between private and public healthcare organisations in Hong Kong. The public managers and GPs described themselves as 'staff', who were expected to support the initiatives and comply with the regulations set by the public organisation. Several participants reported that their clinical practices were bound by a series of resource allocation policies established by the government and other lists of corporate goals, as well as service standards and public accountability by the HA. One public GP argued that the clinical team was facing dual pressure from the HA and from increased expectations by the public to provide a better quantity and quality of care. In the accounts of many public GPs and managers, they felt unvalued and powerless in corporate decisions as the top management did not take their expressed concerns and feedback on resource allocation and welfare changes seriously. This view was echoed by a manager, who felt that frontline staff were expected to follow instructions as given with little voice in corporate policy such as the Hospital Accreditation Programme: "Actually…the frontline staff are not that interested in the

Hospital Accreditation Programme[5], they are just being forced into it, aren't they?" (M2, public manager). Some public GPs also felt disconnected and excluded by top management in the purchasing decisions for chronic disease medications. For example, one public GP struggled against the HA prescription guidelines which prohibited him from offering the best available option to patients with complex physical and mental conditions: "In fact there are many constraints in prescriptions. You know of some good medications, but you can't prescribe them. You see that patients are emotionally unstable, but you can't help them with their other problems…" (P5, public GP). Another public GP said they could only prescribe a limited range (60% of the market stock) of the chronic disease medications available in the HA pharmacy without additional charges. In this way, public GPs were trained explicitly to adhere to prescription rules for clear-cutting first, second and third line therapies[6] and told patients only about the options available to them (Hong Kong Hospital Authority, 2015a). Whilst some public GPs and one manager felt that it was somewhat unethical to adhere to the HA formulary, all agreed that the formulary considered cost-saving weighted by patient benefits in categorising first-, second- and third- line therapies (Hong Kong Hospital Authority, 2015a). One senior manager admitted that conflict arose between GPs and patients when the HA purchasing guidelines prevented them from prescribing the most clinically effective medication to patients, instead of shifting them to prescribe a generic or a less expensive option as the first treatment:

[5] The Hospital Accreditation Programme is the first accreditation programme supported by the HA, in collaboration with the Government, Department of Health and Private Hospitals Association, since 2009 to assess the hospitals' performance based on international practices, standards and principles from The International Society for Quality in Health Care (Hong Kong Hospital Authority, 2018b).

[6] First line therapy is proven to be the most cost-effective drug in terms of cost, safety and efficacy reviewed and approved by drug and utilisation policies in the HA Drug Formulary, a committee that is accountable for drug policies, guidelines, management and utilisation across public hospitals and clinics (Hong Kong Hospital Authority, 2015a).

> Patients know about it. They would ask, why don't you prescribe me the nicer drugs with fewer side effects and hypoglycemia? However, we cannot prescribe the DPP4 group; it is a third line drug. Conflicts arise between GPs and patients when it comes to drug formulary guidelines related issues. It happens. (M2, public manager).

To minimise conflicts, some public managers and GPs explicitly avoided introducing or providing further information on second- or third-line drugs, as described by a public manager: "Sometimes we tell patients who ask about second- or third-line drugs: 'We will see by the time you need them'. You do not need to say too much; just give them the appropriate amount of information" (M2, public manager). Moreover, a few public GPs and managers, particularly resisted offering self-funded medications as it risked losing trust and creating conflicts with patients from lower socioeconomic class "patients who visit the HA are not rich. Of course, there are expectations, but they become hostile when you suggest some out-of-pocket payment for medications in the private market" (P5, public GP).

Conversely, some private GPs and managers described GPs as "partners" within a private organisation. Private managers elaborated on the partners' contributions in which the organisation provided structural support such as pharmaceutical procurement, facilities development and management and pooling of patients from insurers or corporate medical benefits to sustain the GPs' revenue. They also said the GPs' job is to keep the business going, retaining and attracting new customers with their professional skills. Through an engaging management style, private managers engaged GPs actively in corporate decisions across clinic operations, management pricing and drug procurement aspects of the business in return for their loyalty in staying in the

workforce: “It is a partnership because doctors are professionals. They need respect. Although they are fully employed in our organisation, we still give them a lot of autonomy to build up a good workforce and have continuity!” (M5, private manager). Private GPs were not restricted by the prescription guidelines from the HA drug formulary and had a higher sense of ownership and autonomy to prescribe any type of medication affordable for the patients. In the accounts of patients with unfamiliar demands, private GPs showed more understanding, considering the clinical effectiveness as well as the long-term psychosocial burden of the medication. A private manager stated:

> From the patients’ perspective, they should have autonomy. We will tell patients the drug’s cost, the benefits and risks of their current medication and other alternatives. If patients think it’s too expensive to purchase medication in our clinic, we will write them a prescription to purchase it elsewhere. We will still prescribe them the drug if they cannot find a cheaper alternative elsewhere (M1, private manager).

Returning to the concerns of “resistant patients” described by public GPs, private GPs were more open-minded when patients rejected their prescription offer, and still attended to their worries about future harm from various treatment plans. They even took one step further to refer or extend a future offer of prescription. For example, a private GP recounted how he handled patients worrying about unprecedented potential side effects: “sometimes we tell the patients: if you feel unwell after the medication and you think it is related to the medication itself, you are welcome to telephone me” (P7, private GP).

As indicated previously in relation to the differences in management style between the public and private sectors, a private manager commented that the rigid style of management in the public sector was hampering the long-term GP-patient relationship: It might be different in the public sector because if you refer the patients out [to the private sector], they cannot go back to the public clinic. However, our organisation is supportive. If patients trust a specialist and want to see them instead, the GPs will refer them to specialists in our organisation to get a second opinion, or they can be transferred back to the GP. Our GPs and specialists can meet their quotas (M5, private manager).

A common understanding shared by the private GPs was that they could refer the patients back to the public sector at times when they felt that the patients' complication risk would be high, and consequences may be severe. In contrast, some public GPs reported having to take full responsibility for all the patients until the very last moment when there was a clear surgical need, and fear of being blamed if patients reported side effects from medications: "As simple as medication may be, there are still some known side effects. There is a trend where if side effects occur, we are blamed for doing harm to the patients" (P3, public GP). The constraints of prescription guidelines, which limit the range of medications available to patients, and fear of conflicts or blame led public GPs to provide the minimal amount of clinical information listed on hospital guidelines. Private GPs without such restrictions felt more confident to disclose more drug information even when patients rejected their prescriptions or requested unfamiliar medication.

4.3.2.3 Subtheme 2.3: GPs' perception of learning culture and how this influences their readiness to use patient-centred consultation styles

This section describes how the norms of medical training within an organisation lead to a disparity of views between public and private GPs on their professional role, values and readiness to use patient-centred consultation styles.

In Hong Kong, public and private GPs are educated in the same way through their undergraduate and internship years at two medical schools which shape their professional identity and core professional values. However, their work experience in public and private practices transformed some of their professional identity and values. For example, one private GP perceived himself as a "problem solver" (P12, private GP), while others saw themselves as a "health coach" (P6, public GP & M4, private manager) and "medical healers" (M3, public manager, P6, public GP & M4, private manager). Some public managers and private GPs emphasised the first 'do no harm' principle as they saw it as their duty to address patients' health beliefs about medications if they appeared irrational or unreasonable. Other GPs who identified themselves as family medicine (FM) specialists saw themselves as "better communicators" than those without this training.

Although public and private GPs go through the same medical education, the learning culture and on-the-job training appeared to be different, shaping GPs' unique way of building rapport, consulting and making treatment decisions with patients. Some public managers reported that public GPs are expected by the HA to undergo family medicine training as a mandatory process, equipping themselves with essential patient-centred consultation skills in order to qualify as a specialist in family medicine. Thus, the public hospitals were being allocated with government resources to develop formalised

training programmes and policies. In this formalised training programme, most public GPs are given extra coaching to strengthen patient-centred skills through observation, supervision, regular assessment and feedback from senior colleagues. The majority of public GPs referred to this coaching as a gateway to refining the level of patient-centeredness and effectiveness of their consultation skills, providing them with extra reassurance for their future FM exams. Unfortunately, the government training resources were not allocated to or benefited the private GPs. Other responses from most of the private GPs and one public GP illustrated that they learnt most of their skills through personal experience. Without the resources for formalised coaching in the private sector, a public manager revealed that some private GPs secretly visited and learned from their high-performing private competitors:

> You know some GPs pretend to be patients and consult their competitors? They spent HK$200-300 (£20-30 sterling) because they wanted to know why the GPs next door have a thriving business while they themselves have no customers. They can go and see it, wow! Their clinic has long queues. Wow…fully booked. (M2, public manager).

Some GPs reported they also acquired their skills through feedback from senior colleagues, professional seminars and previous family medicine training in the public sector or college. Some private GPs who had family medicine training felt readier to use the patient-centred consultation style to explore the ideas, concerns, and expectations of patients across physical, emotional and social aspects of their conditions. Many public GPs, and both public and private managers, also reported feeling ready to reach mutual decisions with patients. Two managers commented that GPs gradually increased their level of confidence through the FM training process. In the public sector, trainees implemented various aspects of patient-centred skills targeting physical

examination, needs assessment and disease management by shifting the power back to the patients in exploring, negotiating and reaching clinical decisions.

In the private sector, organisations did not expect GPs to train as specialists nor deliver patient-centred consultations. Two private GPs reported having full control to use the right consultation style to satisfy patients and pointing out that their organisation was flexible on FM training. The learning culture is driven by GPs' motivation and incentives. One manager (M4, college manager) argued that training resources skewed towards the public sector left the private GPs with little incentive or opportunity to obtain advanced training in family medicine. Some GPs and managers felt that existing private GPs were not keen on the FM Programme as they would be sacrificing their job security without a guaranteed revenue gain as an FM specialist in the private sector upon completion of the Programme. Another manager claimed that younger GPs entering the private sector directly after graduation without FM training would, therefore, bombard their patients with a doctor-centred style: "GPs who just graduated; most of them use this paternalistic model: 'this is how I would do it'… to give orders dadada, bumbumbum like this and not care about patients' thoughts" (M2, public manager). One manager argued that on rare occasions without FM coaching, some GPs may be able to "figure it out on their own" (M2, public manager) and deliver satisfying patient-centred care. Another private manager added GPs' character, attributes, previous training and years of clinic experience determine their readiness for SDM, but most private GPs are not given a chance to develop and refine their consultation style. Commenting on the training policies and resources, one college manager felt that the lack of a mandatory education scheme was enlarging the public-private gap in awareness and standards of patient-centred care. Interestingly, one public manager observed some skills and awareness gaps among some private GPs: "Compared to HA

doctors who received mandatory training, I have to be honest…some private doctors are out of touch with the latest medical knowledge as they have not been continually educated…" (P9, public GP). Unlike specialists who have to attend 30 hours of training annually on the latest policies, communication and clinical techniques in order to be board certified under the Continued Medical Education Scheme (CME), GPs were not required to attend any ongoing training.

4.3.3 Theme 3: GPs' perception of how national values influence mutual trust in the GP-patient relationship regarding mutual participation in treatment decisions

The third theme examines how the wider societal culture caused conflicting expectations among older and younger patients towards GPs and healthcare services. This disparity influences how GPs establish trust and rapport with different generations, facilitating a patient-centred or doctor-centred consultation style.

4.3.3.1 Subtheme 3.1: Conflicting traditional and modern societal values towards authority in Hong Kong and their influence on the mutual trust and rapport in GP-patient relationships.

Among the Chinese population in Hong Kong, GPs and managers pointed to conflicting beliefs towards authority among the older and younger generations. They reported an observation that the older generation of Chinese, aged 65 or above, tended to treat GPs as professionals rather than as friends, showing more respect, trust and even some fear:

> To some extent, patients feel afraid of GPs. This is the norm in Asian society. They also believe that the doctors' advice is best and in their best interests. If you present alternatives to these patients, it is harder for them to make a judgement (M1, private manager).

Compared to younger patients, some GPs and one public manager thought older Chinese patients were not interested or ready to discuss treatment options, and instead appeared to be passive, waiting for the GP to make a move. One GP described his experience:

> Doctor, can you choose for me? Doctor, please choose for me!" This is especially common among the older generations in Asian society; they still believe doctors should be in charge, including the consultation, how to proceed, how and what medications to take (P12, private GP).

Even though some older patients disapproved the benefits of Western medicine, they quietly accepted GPs' prescription offer. In this way, many GPs have little incentive to mutually discuss options with older patients. One GP sensed that "Some people just want things kept simple" (P2, private GP). A public manager perceived the polarising doctor-patient relationship in society as making it more difficult to build trust among younger patients:

> In a macro view of society, the doctor-patient relationship is polarising. If the doctor-patient relationship is worsening, it is like the societal environment affecting a small bunch of people. On the whole, if patients do not trust doctors in a society, it is exhausting for you as a GP (M3, public manager).

Older generations were not ready for patient engagement or shared decision making, and some participants felt it may bring more frustration and mistrust during consultation.

On the other hand, some public GPs and one public manager felt that younger patients expected too much from them and took the public health services for granted: "They expect more people to take care of them, and they ask 'why did I have to wait for so

long for a doctor to see me and then I'm being sent away so quickly?'" (P3, public GP). To fulfil their high expectations, patients tend to visit several health providers to try to get their demands fulfilled. A public GP observed that most Chinese patients trust specialists more than GPs on medical care; the current policy also allowed them to visit any specialists directly without a GP referral, particularly in the private sector. With society favouring doctor-shopping, one private GP and manager argued that using the informed style may cause doctors to be perceived as incompetent, indecisive or not properly trained, which may drive patients away. A GP explained:

> The informed model is not feasible in Hong Kong. Maybe in the UK with less doctor shopping and where patients know they are stuck with the GP, it is different… In Hong Kong, you need to make them feel this doctor is competent. If you ask the patient: 'What do you think?' they would think 'come on! you are the doctor, not me!' (P11, private GP).

This view is echoed by other GPs who agreed that a doctor-centred model might be more culturally appropriate and beneficial to Chinese patients:

> Hmm…the informed model may not benefit the patients because it is a one-way model that requires patients to take the lead. In fact, patients may not be capable of knowing which treatment the best for them. If they go subjective and do not listen to the doctors, it could be bad for them (P14, private GP).

4.3.3.2 Subtheme 3.2: GPs' perceptions of Chinese patients' attitudes towards Western medicine influencing their willingness to involve them in treatment decisions

Another important aspect of societal culture was patients' attitude towards the prescription of and adherence to treatments with Western medicine. This influenced GPs'

willingness to engage patients in treatment discussions. Some managers and one public GP felt that the notion of Western medicine still had not gained wide acceptance by some patients in Hong Kong. Talking about prescribing Western medicine, they recalled some patients who tended to avoid the discussion or offer of Western medications, expressing fear of impairing their liver or kidney function in the long term. For example, a manager explained:

> Sometimes I see it happening quite a lot in our clinic. You prescribe some medication, but the patients don't take them. You ask the patients when they come back next time: why didn't you take the medication? Of course, it may be because of the side effects or they simply don't share the same view as you on the medication (M3, public manager).

Some public GPs and private managers explained that patients still trust Chinese medicine for its preventive nature and natural herbal ingredients which balance the life energy of the body systems rather than Western biomedicines which target specific illnesses. For example, one GP felt frustrated when some patients attributed unrelated physical symptoms to toxic effects of prescriptions, denying the curative benefits of Western medication, "For example patients claimed: I get paler after taking the medication. I lost more hair. I cough badly for over a week, but coughing is not a common side effect of the medication" (P5, public GP). Even if patients accept and collect their prescriptions, they may bear the toxic effects of Western medicine in mind and not adhere to the full treatment. Commenting on the issue of drug non-adherence, a college manager quoted a report from the local media that thousands of pills were found, having been left to rot in the kitchen of an elderly person's home. Other GPs said that some patients were not completely honest about their use of folk therapy and Chinese medicine from other practitioners, which may undermine the efficacy of the

Western prescription. One manager commented, “Patients may not tell the GP that they drank herbal tea or took Chinese medicine between the prescriptions. Some cases reported no effect after prescriptions and we discovered the patients did not follow the GPs’ advice on taking medication” (M1, private manager). A few public GPs perceived Chinese patients’ cultural beliefs about Western medicine as unbreakable barriers to communication, closing doors to shared decision making. One GP stated:

> The most difficult ones…are those who hear a lot of false medical information and did their own investigations already. They have read a lot of information and have had some ideas. Those are tricky as they have deep-rooted beliefs which are not accurate…it takes a lot of effort to deal with them (P5, public GP).

4.4.4 Theme 4: Financing and service level initiatives to drive cultural change among GPs towards patient-centred care

The last theme of this study addresses potential solutions to overcome the organisational and individual barriers highlighted in the previous themes to facilitate patient-centred care.

4.4.4.1 Subtheme 4.1: Strengthening transparency and fairness in healthcare services to reduce the workload of public GPs in the interests of patient-centred care

Some GPs and managers acknowledged the facilitators of and barriers to patient-centred consultation styles and recommended changes at the service level, such as increasing transparency and restructuring the pricing and resource allocation system. At the same time, some suggested boosting the subsidy amount in current voucher schemes to encourage patients to take up more private services.

One public manager suggested increasing the co-payment fee up to the market price of HK$220 (£22 per year), shifting the financial demand back to the private sector and reducing misuse of public services. Commenting on the service co-payment, some GPs and managers attributed the large price gap between the public and private sector to some excessive and unnecessary demands in the public sector. Another manager argued that patients would flow back to the private sector with the subsidy increased from HK$4000 (£400 per year) to HK$8000 (£800 per year), giving greater flexibility for both the GP and patients to use and cash in vouchers from the existing Elderly Voucher Scheme:

> It would be better not to set a limitation on voucher accumulation because the elderly tend to save them up for later use. The elderly can accumulate more health credits without an upper cap. If they have more credits, the elderly are more likely to shift to the private sector. The interest in PPP among private GPs is not as high as they are not allowed to charge above a certain amount of money… (M2, public manager).

Another private manager suggested that itemising per-unit government-subsidised and patient-co-payment charges could promote price transparency and sensible choice of services by reflecting the true value of the consultation:

> In fact, the government should tell the patient percentage of their consultation is subsidised by the government, and that they only copay HK$100, with HK$1100 funded by the government. They would be aware that this is an HK$1200 consultation and would make a sensible choice (M1, private manager).

Returning to the issue of resource allocation within the HA, one private manager highlighted two successful experiences from the Auckland District Health Board. To ensure equitable distribution across health facilities, the health board applied a population-based fair funding formula, adjusted by socioeconomic parameters such as age group, household income, education level, deprivation index and service needs across various locations (Wellington Ministry of Health, 2003). The private manager remarked that this funding formula could generate a fair estimation of market prices for crucial medical services shared across the public, private and insurance sectors. Another successful experience of the New Zealand health board was the specific health target, outcomes and strategies on healthcare resource allocation, as described by the manager: "I want to achieve a coverage of 100% for some vaccination in a chosen context by when. This is a long-term public health strategy which the whole private sector has to follow in order to achieve the health target"(M1, private manager). Other public and college managers responded to the issue of resource allocation by proposing that the HA publish a clear scope of services using mean tests to prioritise services to the lower SES group, complemented with public education on the right attitude, responsibility and communication when utilising public services.

Interestingly, concerns among some GPs differed on the service level as to their role as a gatekeeper and service provider, authorising patients' access to specialist care. Ultimately, they still wish the organisation could reduce their caseload, allowing them to explore deeper and redirect patients to the needed services. One public GP said:

> In fact gatekeeping requires time to do better because if a patient has several conditions and one of them is heart pain, if you give me 10 mins, I can distinguish better if it is heart disease but … if you finished other examinations

> and there are only 2 mins left, I wouldn't dare to send them home, and I would end up referring them to A & E [Accident and Emergency Department]. How can I gatekeep? (P5, public GP).

Another public GP explained that an alternative way to gatekeep as a service provider is to triage the new cases of chronic diseases into a new queue with more time allocated for consultation and patient education on disease management.

4.4.4.2 Subtheme 4.2: Strengthening care processes and health information system for decision making to allow GPs having more quality time for patient-centred care

Some GPs and managers recommended changes at the structural level such as developing decisional support platforms, care and processes redesign, professional training to save time on knowledge transfer but create more time to discuss patients' needs.

Two managers felt that there was a lack of decision support platforms such as medication database to enhance patients' understanding of the ingredients, risks and benefits of their various medications. They felt that the terminology used on the current Drug Office website was too complicated for patients to understand and apply in the context of their disease (Department of Health Hong Kong, 2019). Some managers and GPs proposed building a decision support platform on essential medications via Facebook, mobile applications or the existing patient portal system. A manager referred to some successful web layouts by international medical groups such as the Mayo Clinic and the Monthly Index of Medical Specialities (MIMS). The MIMS is a benchmark pharmaceutical reference guide in the UK, which includes the brand name, generic name, indication and use of various drugs; their dosage and directions for use; a

description of the chemical formation; pharmacodynamic and pharmacokinetic details and also a photograph showing the packaging and outlook of the drug on the website (Haymarket Media Group, 2018).

Moving on to the information delivery process, one private manager suggested sending timely personalised medication-related information to patients' mobile phones while they were waiting to be seen by the GP. Another public manager welcomed with this idea, and expanded it with the suggestion of a printed, electronic report which could integrate and evaluate personalised options to save explanation time as well as engage patients more in decisions:

> I could print the report out and tell patients: 'Why don't you go and have a look outside first and then we will chat when you are ready?' Right? 'You do not have to decide in front of me now.' (M3, public manager).

In addition, some GPs proposed a variety of service upgrades to improve information and mutual discussion time between health professional and patients. For example, a GP advised re-conceptualising nurses and pharmacists as medication counsellers not only at the time of dispensing but also before the consultation process. The GPs said that it would be good to shift nurses' and pharmacists' roles to enable them to answer patients' questions on the nature, dosage, method of administration, side effects and also the effectiveness of medication:

> There are many occasions when pharmacists can help. For example, if you say some patients have doubts about the medication, the pharmacist can explain to them, then it would be easier to discuss afterwards. It is very hard to ask the GP to discuss all the medications (P5, public GP).

Another private GP trained in the UK referred to the NHS Direct model, which

successfully reduced unnecessary consultation through timely provision of clinical and decision-making advice (National Health Service Wales, 2018). Thus, the GP suggested revamping the existing HA call centre to a 24-7 information point:

> Let's say if I were the patient and I called the call centre, then the administrative staff wrote down the message and asked the GP for advice, then the GP responded to the administrative colleague, who then passed the message back to the patient (P1, private GP).

Lastly, some private GPs who received training in the UK commented it took time and capacity to build the above platforms. They considered the option of developing simple leaflets targeting chronic disease control, healthy dietary behaviours and medication use as an immediate solution. Responding to the existing and recommended information tools and platforms, one public GP was sceptical as to whether they would meet patients' needs. The GP proposed an evaluation study to explore the feasibility, acceptability and effectiveness of such tools.

4.5 Discussion and Conclusion

In summary, the first theme of this study highlights a noticeable trend towards patient engagement in Hong Kong, advocating that GPs move towards the SDM consultation style in primary care practices. There were differences across the participants in this dataset according to their age, years of primary care experience, country of medical education or training, and practice location and their impact on the practices of SDM. The findings suggest that younger GPs, as well as those who had completed FM training were more aware of the concept and enjoyed the favourable clinical contexts for SDM. However, one interesting finding was that the practice of SDM was not universal among public and private GPs, with various degrees and intensity of patient engagement and

information sharing. There were ambivalent feelings among GPs, from antagonism to apathy to support of patient engagement and SDM. The contradictory feelings and practices of the GPs towards SDM could be explained by individual-, practice- and system-level factors.

With regards to the first objective of the study "**To explore whether and how organisational culture differs within public and private healthcare organisations in Hong Kong**", the results indicated a notably different service focus, management style and learning culture across public and private organisations (Table 13). Firstly, a different service focus could be observed, influenced by the different healthcare financing models of patients' services and the amount of pressure exerted on GPs by market and public demand. Private GPs were appraised on their effectiveness in retaining patients and driving revenue under market pressure levels. Public GPs, who were not under market pressure, were appraised according to how patients rated the consultation experience and their treatment adherence. Secondly, management styles were influenced by both the balance of power between managers and GPs in corporate decisions and the managers' degree of control over GPs' prescription practices. For example, public GPs reported that their voices on policy decisions were not heard within a top-down management culture at the Hospital Authority. Taking the cost of drugs into consideration, limited pharmacy options restricted their freedom to prescribe a wider range of medications. In contrast, private GPs reported greater freedom in prescription, personalised patient care as well as influence on corporate decisions within an engaging management culture. Thirdly, the learning culture was influenced by the availability of policy and resource support to learn patient-centred consultation skills. Public GPs reported that it was mandatory for them to learn patient-centred skills via family medicine training. For succession planning, the HA also provided public GPs with

coaching support and promotion opportunities. In contrast, private GPs found that the freedom gained via the engaging management style was counterbalanced by little support and motivation to complete family medicine training.

Table 13 Comparing the differences between private and public GPs' consultation style

	Public GPs	Private GPs
1. Management style within the organisation	• Authoritative managers (top-down) • Little influence on corporate decisions • Limited prescription freedom • Limited care coordination freedom - cannot serve as a personalised GP with the same patients unless justified	• Engaging managers (bottom-up) • Considerable influence over corporate decisions • Prescription freedom • Care-coordination freedom - can be a personalised GP for the same patients
2. Healthcare financing model	• 90% government subsidised • Public pressure	• Financed by patient, insurance or corporate medical scheme • Market pressure
3. Healthcare market	• Monopoly public healthcare market as the sole provider	• Competitive private healthcare market with many providers
4. Service focus of the organisation	• Patient-oriented, • Patient-satisfaction and treatment adherence	• Profit-oriented • Competitive care, patient loyalty
5. GPs' role	• Salaried employees of the Hospital Authority	• Profit-sharing partners of medical groups
6. GPs' wellbeing	• Lower satisfaction, self-esteem. • Expressed fear of being blamed for unpredictable patient outcomes	• Higher satisfaction, self-esteem and confidence with unpredictable patient outcomes
7. Learning culture of the organisation	• Mandatory training in family medicine arranged with formalised financial and workplace support	• Self-initiated training arrangements without support
8. Expected consultation style of the organisation	• SDM as a practice goal	• No specific style, emphasis on safe and efficient care
9. Appraisal of GPs' performance	• Patient satisfaction	• Profit generation

The second objective of the current study was "**To explore GPs' and senior managers' perceptions of organisational culture and how it influences their consultation style during medication consultations in Hong Kong.**" This study found that an engaging, bottom-up management style promoted higher levels of GPs' autonomy, ownership, decision-making power and satisfaction within private organisations. Private GPs were found to be more confident and tolerant towards patients with demanding requests, co-engaging them in treatment discussions using a patient-centred style. Public organisations, however, promoted higher GP adherence to rules, higher avoidance of risk, lower decision-making power as well as lower satisfaction and self-esteem with an authoritative management style. Public GPs, who expressed fear of blame for unpredictable outcomes, took full control of prescription decisions using paternalistic style. However, the study has also shown that a patient-centred culture facilitated deeper discussions between public GPs and patients. Although public GPs had limited prescription power, they still strived towards patient satisfaction and treatment adherence by exploring and meeting their needs. In the private sector, the profit-oriented culture emphasised "competitive care", encouraging private GPs to be time-efficient while taking consideration of patients' preferences. The findings indicated that some GPs managed patients who appeared too submissive or dominant using a more paternalistic style. Lastly, the interviews revealed that SDM was becoming a practice goal among the public GPs at the department level with committed training policy and coaching support. Conversely, there was no clear directive to adopt SDM in the private sector. The findings revealed that private GPs had a varied level of awareness and characterisation of SDM. In private organisations, SDM was not widely advocated or practised under a voluntary learning culture.

The third objective of the current study was: "**To explore GPs' readiness to practise shared decision-making (SDM) in patient consultations and whether there are policy, organisational or individual barriers preventing them from doing so."** Most public and private GPs thought that they and their colleagues who were trained in family medicine were equipped and ready to practise SDM. For GPs without family medicine training, some felt readier than others to practise SDM, depending on their character, self-awareness and other past communications training. Overall, it was found that private GPs wanted to practise SDM, but they found it contradicted the profit-driven culture in the organisation. As explained in the previous chapter, some private GPs perceived that asking for patients' involvement may not be welcomed by patients who could visit another GP for a doctor-centred consultation if they were unsatisfied. Findings also showed public GPs wanted to please their patients by adopting SDM, but the prescription policy restrained their freedom to prescribe effective but expensive medications.

Overall, some policy and organisational barriers were found to impede GPs' SDM practices: different co-payment mechanisms resulted in a supply-demand imbalance across public and private sectors; work rotation and resource allocation policies in the public sector prevented the continuous, personalised care necessary for SDM; time constraints resulted in low incentives for GPs to use SDM, as well as a lack of accreditation for primary care doctor, prevented private GPs to take up family medicine training. Moreover, individual barriers to practising SDM, such as a lack of family medicine training among GPs who struggled with patients exhibiting lower health literacy or those unwilling to change their health misconceptions, were also found. Interestingly, the fear of authority among Chinese patients was found to influence GPs

in establishing a rapport with patients. The study reported that older patients were happier to be given definitive advice, while younger patients demanded transparency and autonomy in their treatment decisions.

Taken together, these findings suggest a role for an engaging management style, customer-driven and mandatory learning style within a healthcare organisation in promoting more SDM style for GPs in primary care consultation. Related to this, the study has found that an authoritative, profit-driven and voluntary learning culture within a healthcare organisation promotes more one-way consultation styles such as the paternalistic or informed styles. Interestingly, my findings found that organisational cultures were shaped by one-directional influences from GP-manager or GP-GP interactions, which further impacted on their consultation style. Such influences were not found among GP-patient interactions. My findings also revealed patients' response changed GPs' consultation style at an individual rather than an organisational level. It appeared that patients could shift GPs' consultation style in various ways without changing their organisational culture. A possible explanation for this might be attributed to the inherent power imbalance between the medical professional and sick patients in Confucian cultures, in which the later is powerless to exert upward changes on GPs or their organisational culture. However, the comprehensive dynamic through which national culture interacts with organisational culture to influence GPs' behaviour is beyond the scope of this study.

CHAPTER 5 DISCUSSION AND CONCLUSION

5.1 Introduction

The topic of this study is important as patients with chronic diseases in Hong Kong and worldwide require frequent discussions with their GPs to manage and make decisions about their long-term illnesses and medications. Recognising that organisational culture and other environmental factors influence GPs' consultation style could lead to better provision of patient-centred care at the system level with sustainable support for GPs to deal with the policy, practice and individual barriers. This study has explored the research question "What is the nature of GPs' consultation style in Hong Kong, and how is it influenced by the organisational culture within healthcare organisations?" A constructivist epistemological stance and a qualitative methodology influenced the chosen methods of individual interviews for data collection and thematic analysis to analyse the data, with the goal of contributing new insights and knowledge. This chapter critically discusses the utility of the theoretical and analytical framework to inform the thesis and the theoretical, policy and practice implications of the findings. The limitations of the current study, and recommendations for future research will also be discussed at the end of the chapter.

5.2 How the theoretical and analytical model contributed to the thematic analysis

The thematic analysis was mostly data-driven with some theory-driven elements prompted by the understanding of three models. As a theoretical framework, Charles et al.'s (1999) decision-making framework clearly demonstrated and guided the understanding of different consultation styles in treatment decision-making, but not the interpretation of organisational culture. As analytical frameworks, both the Hofstede national cultural dimension theory (Table 2) and the Hofstede multi-focus model of

organisational culture (Table 4) contributed to the thematic coding and interpretation of the two themes on organisational and national cultures of this thesis (Hofstede, 2001; Hofstede, 2011; Hofstede, 2018b). Previous papers have found the Hofstede national cultural dimension theory useful in conceptualising how diverse culture might manifest itself in social interaction and its implications for business, educational or healthcare settings (Chiang, 2005; Sanderson, 2007; Verma, Griffin, Dacre, & Elder, 2016). However, previous authors have criticized the Hofstede cultural dimension theory, particularly its notion of the influences of six cultural dimensions on human behaviour. Sanderson (2007) argued that the model may lead researchers to make simple generalisations, and that it fails to take into consideration cultural diversity on an individual level such as age, education, socio-economic class, religion, gender and personal experiences. Hofstede's multi-focus model of organisational culture has also been criticized as limited in its application in the healthcare literature and mainly driven from a Western perspective (Farzianpour, Abbasi, Foruoshani, & Pooyan, 2016; Tabibi, Nasiripour, Kazemzadeh, & Ebrahimi, 2015). In theory, Hofstede's models were constrained by six dimensions of national and organisational culture developed from business settings. As theoretical frameworks, they were insufficient to explain a wide range of influences from national and organisational cultures in healthcare settings. However, as an analytical framework, it is useful to reflect on the idea of organisational and national culture through the interactions between GPs, organisation and patients. Table 14 elaborates on how the four dimensions of national culture (Table 2) and five dimensions of organisational cultures (Table 4) emerged across the themes:

Table 14 List of national and organisational cultural concepts

	Public GPs	Private GPs
National cultural dimensions		
Older patients – • **Lower masculinity** (assertiveness) • **Higher uncertainty & short-term orientation** (unadaptable) towards western medicine	• **Higher power distance** between GP and patient ➔ Paternalistic style	
Younger patients- • **Higher masculinity** (assertiveness) • **Lower uncertainty avoidance & long-term orientation**(adaptable) towards western medicine	• **Lower power distance** between GPs and patients ➔ SDM/informed style	
Organisational cultural dimensions		
All patients	• **Pragmatic culture** (public market), patient-centred • **Means-oriented culture**, patient experience ➔ Prioritises SDM	• **Pragmatic culture** (private market), profit-centred • **Goal-oriented culture**, patient retention & profit-making ➔ Prioritises paternalistic style
Public managers • **Tight control** (authoritative management style) of GPs towards prescription ➔ Impedes SDM	• **Work-oriented culture**, GPs as employees who follow instructions • **Open-learning culture,** open communication about skills and training in SDM with GPs and managers ➔ Prioritises SDM	
Private managers • **Loose control** (engaging management style) of GPs towards prescription ➔ Facilitates SDM		• **Employee-oriented culture**, GPs as partners who engage in corporate decisions • **Closed learning culture**, minimal sharing about skills and training in SDM with other GPs, who are considered as competitors ➔ Prioritises paternalistic style

5.2.1 Power distance and level of 'masculinity' in GP-patient relationships

Regarding national culture, one of the themes concerned the **conflicting traditional and modern societal values towards authority in Hong Kong and their influence on the mutual trust and rapport in GP-patient relationships** (Theme 3.1). This theme is related to Hofstede's national dimensions of differentiating power distance and level of 'masculinity'[7] among younger and older generations in society. The current study found that GPs perceived more respect and obedience (higher power distance) from older patients, who also appeared to be more passive and consensual (lower masculinity) in treatment decision-making. In contrast, GPs perceived a more demanding attitude from younger patients about their rights and equality as customers (lower power distance), and such patients also appeared more direct and confrontational (higher masculinity) in treatment discussions. Thus, GPs were more likely to adopt a paternalistic style with older patients while practising SDM or informed styles with younger patients.

5.3.2 Uncertainty avoidance and short-term orientation towards Western medicine

Another theme relating to national culture concerned **GPs' perceptions of Chinese patients' attitudes towards Western medicine and their influence on GPs' willingness to involve them in treatment decisions** (Theme 3.2). This theme is related to Hofstede's national dimensions of uncertainty avoidance and short-term orientation towards Western medicine. My findings were that GPs felt that most older Chinese patients embraced Chinese medicine as a time-honoured tradition of healing (short-term orientation). For this reason, these patients were found to resist Western medicine

[7] I do not agree with the use of masculine and feminine to stereotype this particular trait which has also been criticized as sexist and Eurocentric in previous papers (Gilligan, 1982; Witte, 2012). However the original terms are being used to reflect the words of Hofstede's multidimensional theory (Hofstede, 2011). Otherwise, assertive/ submissive could be used instead.

(uncertainty avoidance) with a fear of unpredictable harmful effects from taking long-term medications. Therefore, GPs were less willing to engage older patients, who showed fear or avoidance towards Western medicine, in treatment decision-making.

5.2.3 Means- versus goal-oriented and normative versus pragmatic culture in GPs' consultation styles

Regarding organisational culture, one of the themes was **GPs' perception of the role of service focus in determining the way they consult patients on prescriptions** (Theme 2.1) This theme is related to Hofstede's organisational cultural dimensions of being means- versus goal-oriented and having a normative versus a pragmatic culture. My findings indicated that there were different ways of expressing the pragmatic (market-driven) culture surrounding GPs. Respectively, public and private GPs took patient-first and profit-oriented approaches. One difference found was that public GPs emphasised patient experience to a greater extent (they were means-oriented) and increased their practice of SDM, whereas private GPs emphasised patient retention and profit-making (they were more goal-oriented), favouring any style which pleased their customers. However, contextual factors such as time constraints and care coordination policies could minimise the influence of organisational cultures on their consultation styles.

5.3.4 Means- versus goal-oriented, tight versus loose control, and employee- versus work-oriented culture in GP-manager relationships

Another theme centred on **GPs' perception of how managerial control influences their confidence with unexpected prescription requests from patients** (Theme 2.2). This theme is related to Hofstede's organisational cultural dimensions of means- versus

goal-oriented, tight versus loose control, and employee- versus work-oriented culture. An authoritative management style in public organisations is characterised by a top-down approach, strictly restraining GPs' prescription behaviours. Public GPs were found to see themselves as employees who were expected to do as instructed, having minimal bottom-up influence over corporate decisions (SAWwork-driven). Without market pressures, public GPs were found to care more about the quality of communication or the process of consultation (means-oriented). In contrast, an engaging management style in private organisations was characterised by a bottom-up approach, allowing the private GPs freedom and flexibility to prescribe. Private GPs were found to see themselves as partners with significant influence over corporate decisions (employee-driven). Being profit-sharing partners, private GPs were able to increase revenues by retaining and expanding their customer pool (goal-oriented culture).

5.3.5 Open versus closed learning culture among public and private GPs

The last theme concerned **GPs' perception of learning culture and how it influences their readiness to use patient-centred consultation styles** (Theme 2.3). This is related to Hofstede's organisational cultural dimensions of open versus closed learning cultures. Public GPs were found to embrace family medicine training as a time-honoured professional norm. They communicated openly about health improvement and consultation skills with seniors through mandatory coaching, whereas private GPs saw learning and training as optional. It was not common to share insights about training or skills with other private GPs in the market. In order to learn, some junior private GPs had to pay anonymous visits to other successful GP competitors to observe their

consultation styles. Hence, public GPs felt better equipped and more confident to practise SDM than private GPs.

The use of five dimensions (Table 14) in Hofstede's multi-focus models are useful in comparing and explaining how organisational communication and practices differ within a more authoritative public, and a more liberal private healthcare organisation. In addition, this study used four dimensions (Table 14) of Hofstede's cultural dimensions theory to understand how the Confucius Chinese cultures towards Western medicine differ between the older and younger patients. Each of these dimensions profoundly influences GPs' consultation styles from service, management, learning and value perspectives. Another advantage of this approach is that the quantification of Hofstede's dimensions (from the lowest score of 1 to the highest of 100) in national culture (Table 3) has enabled international comparison between the Western and Eastern GPs with regard to their different consultation styles in section 5.5. Interestingly, this study found that GPs' consultation style changed according to the national and organisational culture of origin, influenced by the assertiveness of patients as well as service focus, management style and training culture in their workplace. However, Hofstede's models were group-level dimensions which are not valid to interpret for individual variations in culture within a group. Nevertheless, there may be exceptions to the identified national and organisational cultures among public or private GPs in Hong Kong. To make sense of individual variations, further studies on the socialisation of GPs and their interactions with the society at family-, community-, school- and city level could be undertaken.

5.3 Addressing the research gaps identified in the literature review (chapter 2)

Several research gaps were identified in Chapter 2. The following section describes how the findings in the thesis address some of the gaps and make an original contribution to new knowledge:

The current study has addressed the gap identified in chapter 2 regarding the lack of evidence on how organisational culture drives GPs' consultation styles in Hong Kong. Predominantly, this study makes an original contribution to existing knowledge by explaining how three aspects of organisational culture (service focus, managerial control and learning culture; 2.1-2.3 in Table 12), and two aspects of national culture (societal values towards authority and patients' attitude towards Western medicine; 3.1-3.2 in Table 12) influenced GPs' readiness to practise SDM and patient-centredness in discussing and reaching treatment decisions with patients experiencing different severities of illness and in different social contexts.

This study has shed light, for the first time, on the different experiences of public and private GPs with regards to managers. One of the most original and influential aspects of the subthemes on organisational culture emerged from the interaction of managers' and GPs' perspectives, particularly in terms of how they thought the service focus or learning culture would impact on GPs' consultation styles. The findings of the current study may be applicable to other wealthy Asian cities under the dual influence of both Confucian and democratic values such as Singapore.

Secondly, the managers' perspectives in the current study extend our knowledge in previously unexplored aspects of organisational cultures on GPs' SDM practices. For

example, the findings revealed the corporate nature of the relationship between GPs and managers, the ways GPs learnt and acquired their skills, the healthcare financing culture and its link to other contextual barriers such as time constraints, how GPs were appraised or rewarded for their performance and the wider societal expectations of GPs. This study is the first attempt to thoroughly explore the ways in which GPs' remuneration and the extent of patients' service co-payment impacted on how public or private GPs used different consultation styles to satisfy patients' medication needs.

The third gap identified in Chapter 2 was a lack of studies on the perceived acceptability and feasibility of practising different consultation styles in Hong Kong. My study has presented evidence that GPs in Hong Kong welcome the concepts of SDM, but its practice is still restricted by time constraints and insufficient workplace support, as well as a prevailing paternalistic consultation style. The study found that GPs with family medicine training felt readier to practise SDM, and critically reflected on how the cultural, policy, practice and individual factors enabled or impeded them from doing so. However, there were no notable differences between GPs who were trained and educated locally or abroad during different political eras (British colonial vs Chinese special administrative region eras) or the relationship between this and their use of more doctor-centred or patient-centred consultation styles. However, the current study, which included only four private GPs who were trained in the UK, may have underestimated the impact of political influences on GPs' training and practices of SDM. Therefore, considerably more work will need to be done to explore any relationship between GPs completing their training in different socio-political contexts and the related impact on their consultation styles.

Lastly, the literature review revealed that no theories had been marshalled to explain the influence of organisational culture on healthcare decision-making. My interpretation has demonstrated the potential usefulness of Hofstede's framework by applying five out of six elements from Hofstede's' multi-focus model of organisational culture (means vs.goal oriented; pragmatic vs normative driven; tight vs loose control; open vs closed system and employee vs work oriented) (Table 4), and four out of six elements of Hofstede's cultural dimension theory (power distance; uncertainty avoidance; short- vs long-term orientation; and masculinity[1] vs femininity) (Table 2) to inform the analysis and interpret the second and third themes in the study. This fills the framework gap and provides an opportunity to advance understanding of cultural norms from an organisational and societal perspective on how GPs build rapport and consult patients on decision-making using various consultation styles.

5.4 Theoretical contribution of the findings

This is the first study to explore how different aspects of organisational culture across public and private healthcare organisations influence GPs' consultation styles in Hong Kong. The study has enhanced understanding of the literature by exploring the public-private comparison in organisational culture and its influence in an Eastern primary care setting. My findings offer new perspectives on the dimensions of national culture which impact the organisational style and patients' approach to consultation style, and how they in turn influence GPs' consultation styles (Tables 2 and 4). The next section elaborates on how national and organisational cultures influence GPs' clinical practice in Hong Kong and compares the different results from other healthcare literature worldwide.

5.4.1 Influence of patients' healthcare utilising behaviours on GPs' information exchange with patients

Firstly, my work provides original insights about differences between older and younger generations and shows that national culture seems to have a stronger influence on older Chinese patients' fearful and respectful attitude towards GPs, favouring a paternalistic consultation style. Findings from other higher power distance[8] countries such as Romania, Belgium and Poland also showed a similar attitude by patients towards their GP but offered no further explanation on the impact of age differences (Meeuwesen et al., 2009; Verma et al., 2016). Similar to the paternalistic GP-patient interactions observed in the current study, Meeuwesen et al. (2009) and Verma et al.'s (2016) studies had what Hofstede described as a higher power distance in the GP-patient relationship, higher uncertainty avoidance towards medical care and higher assertiveness in the GPs' consultation style. Some younger Chinese patients, in contrast, were found to be more proactive about their disease and treatment, shifting GPs' consultation style towards SDM to satisfy their expectations of medical services in the current study. These findings for younger Chinese patients correspond with GP-patient interaction patterns reported across lower power distance countries such as the UK, Switzerland, the Netherlands, Germany and Sweden (Meeuwesen et al., 2009; Verma et al., 2016). The current study has shed a contemporary light on younger Chinese people, whom 'doctor-shop' GPs to seek reassurance over their uncertainties about medical services. This proactive yet mistrustful attitude towards GPs, possibly influenced by the way primary care is organised, is not as commonly seen across the UK, Switzerland, the Netherlands, Germany or Sweden (Lo et al., 1994). A classic example is that the NHS in the UK prevents doctor-shopping by allowing each patient to be formally registered with only

[8] Higher/lower power distance indicates a higher/lower unequal distribution of power

one chosen GP (National Health Service England, 2019).

5.4.2 Influence of Confucian work values and management style on GPs' prescription behaviour

The current study showed an interaction between the Confucian work values and authoritative management styles to produce low staff wellbeing in the public sector. The current study, and that of Chiu (1999), found that Confucian work values, non-assertiveness, avoidance of conflict and submission to authority contributed to work stress and dissatisfaction among Chinese healthcare workers in Hong Kong and Singapore. Under difficult work situations, public GPs from the current study, and nurses in Chiu's (1999) study felt burnt out, dissatisfied from a sense of helplessness and fearful that they could not overcome the sense of blame from growing public expectations of medical services. To deal with clinical uncertainties, public GPs in Hong Kong were found to reclaim control from patients using a paternalistic style. Such feelings were not found among GPs from individualistic countries such as the US and Australia, who were more assertive and dominant in facing authority and conflicts (Chiu, 1999). Similarly, Farzianpour et al.'s (2016) study in Iran found that an authoritative GP-management relationships indirectly contributed to emotional exhaustion and depersonalization among healthcare workers. In contrast, most private GPs in the current study, given the interaction between more individualistic work values and a more engaging management style, were more willing to explore clinical uncertainties with patients using SDM, which concurs with findings across individualistic societies such as the UK, the US, Canada and the Scandinavian countries (Borg, 2014). Another important and original contribution is that this study expanded upon Chiu's (1999) study by demonstrating that in an Eastern context, private GPs differed from public GPs in

work values and their prescription behaviours.

5.4.3 Influence of patients' emotional and verbal expressions on GPs' information exchange style

The current study and that of Karasz et al. (2012) have shown that patients' verbal and emotional expressions when discussing symptoms, preferences, options and medication requests impact on the patient-centeredness of GPs across Hong Kong, the UK, the US and the Netherlands. Some GPs in Hong Kong reported that proactive patients facilitated their SDM practices while resistant patients prompted them to use a more paternalistic or informed style, rushing to close the treatment discussion. The shifting consultation styles of GPs in Hong Kong resemble the way GPs from the UK, the US, the Netherlands and Belgium detected and responded to patient cues and the communication flow of the consultation (Karasz et al., 2012; VanRoy et al., 2013). Initially, GPs from these studies offered a treatment plan according to the patients' symptoms. They then observed patients' verbal and facial reactions in response to the offer, and finally decided if a doctor- or patient-centred style would be more appropriate to carry on the discussion (Karasz et al., 2012; VanRoy et al., 2013). This study contributed to the knowledge that GPs in the Eastern context were also highly sensitive to patients' words, non-verbal attitudes and gestures towards the use of SDM during treatment discussion.

5.4.4 Influence of uncertainty avoidance and service focus on GPs' prescription behaviour

This study found interactions between uncertainty avoidance and service focus on GPs' prescribing behaviour. In the current study, most private GPs in Hong Kong,

acknowledging the high level of uncertainty avoidance which led patients to doctor-shop in the competitive market, was found to please patients by prescribing what they wanted. A similar interaction pattern was found among GPs in Poland, Belgium, Greece and Italy in a societal environment of high uncertainty avoidance and pressure towards patient-centred prescription (Borg, 2014; Deschepper et al., 2008). Public GPs in Hong Kong were also found to want to please their patients with their limited range of prescriptions. However, unlike private GPs, they were trained and expected to provide patient-centred care in a non-competitive market. Therefore, public GPs recognised being able to relieve patients' uncertainties through adhering to their prescriptions as an achievement. These findings were consistent across the current study and with previous studies with lower uncertainty avoidance cultures such as Canada and the US (McMullen, 2012; Tentler et al., 2008; VanRoy et al., 2013). The current study has furthered understanding of national culture by highlighting the role of high uncertainty avoidance and its impact on GPs' service focus and their prescription styles across the public and private sector.

5.4.5 Mandatory learning culture facilitating patient-centred consultation styles

Previous studies from the UK, Canada, the US, the Netherlands, Belgium and Italy found an association between GPs' age and completion of communication training and their perceived readiness and willingness to practise patient-centred styles (Elwyn et al., 1999; McMullen, 2012; Schuling et al., 2012; VanRoy et al., 2013; Vegni et al., 2005). Past studies in the Netherlands, Belgium, and the UK underlined that a lack of workplace training among GPs caused doubts when they were challenged by patients or when using complex decision tools during consultations (Elwyn et al., 1999; Lipman, 2004; Stevenson, 2003; VanRoy et al., 2013). This study has provided a powerful

explanation of the clear-cut differences in training culture between public and private GPs in Hong Kong, with barriers to SDM training and practices mainly from the private sector. Public GPs, enjoying a mandatory learning culture with formalised support, felt more confidence to practise patient-centre styles. In contrast, some private GPs in Hong Kong felt less confident about practising SDM as they tended not to receive training support for using a patient-centred style within a voluntary learning culture. To learn about patient-centred consultation, younger GPs who entered the private market directly after graduation had to disguise themselves as patients to visit and learn from their competitor GPs.

5.4.6 Macro and micro factors influencing consultation styles

Other than cultural factors, my findings have also provided additional evidence on healthcare financing barriers to practise SDM, which were not found in previous studies from the UK, Netherlands, Canada, the US, Belgium and Italy (Elwyn et al., 1999; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Saba et al., 2006; Schuling et al., 2012; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005). Financially, private GPs' role as business partners allowed them more freedom and decisional control over care processes and prescription policies than was the case for public GPs. Private GPs could choose to see a patient and prescribe the most desirable treatment for them. However, public GPs, who served as salaried employees, were not allowed to choose to see a patient and were restricted to prescribe the more expensive and newer third-line therapies[9] with fewer side effects.

[9] Third-line therapy includes more expensive drugs from recent treatments with fewer side effects, prescribed under careful instruction after the first- and second-line therapies, reviewed and approved by drug and utilization policies in the HA Drug Formulary, a committee that is accountable for drug policies, guidelines, management and utilization across public hospitals and clinics (Hong Kong Hospital Authority, 2015a).

5.5 Implications of the findings for clinical policy and practice

This section highlights the existing practices, and the reason behind a policy reconsideration in the areas of GPs' formalised certification and GPs' corporate engagement. The following policy and practice implications take notes of the findings in the current study and other successful implementations of SDM worldwide.

5.5.1 A formalised certifying system for primary care doctors

Due to the lack of a standardised certification system for primary care doctors, my findings reveal the need to establish accreditation criteria, such as a diploma in family medicine, for doctors who wish to practise in primary care in Hong Kong. Similar registration policies for GPs are in place across the UK, the US, and New Zealand to govern GPs role, entry requirements, and continued professional education (CPD) in primary care practice (Institute of Medicine, 2010; Merkur, Mossialos, Long, & McKee, 2008; Miller et al., 2015). CPD provides a means for revalidation and maintenance of high quality care across the UK, the US, New Zealand, Germany, Spain, Austria, France, China, India and Indonesia by continuously exposing GPs to the latest medical knowledge in educational practice (Institute of Medicine, 2010; Merkur et al., 2008; Miller et al., 2015). Legare et al. (2011) suggested developing a checklist of accreditation standards on core SDM competencies to act as international certification criteria for SDM-CPD programmes. A formalised system to certify primary care doctors would incentivise private GPs to complete patient-centred skills training and assessment to practise SDM though family medicine programmes.

5.5.2 Improving workplace wellbeing and GPs' engagement in care processes

The public GPs in this study felt challenged by burgeoning demand and workforce

shortages in public hospitals. In Hong Kong, the Hospital Authority reported an attrition rate of an average of 5% among doctors and nurses in 2011 with a shortfall of about 300 doctors and 600 nurses in 2017 in the public sector, which is worsening the public-private workforce imbalance (Legislative Council Panel on Health Services, 2011; The Government of the Hong Kong Special Administrative Region, 2017). Previous studies from the US have highlighted engaging GPs in policies and corporate decisions as a crucial factor in improving their satisfaction, quality of community and hospital care, and clinical as well as cost-efficiency (Crump, Arniella, & Calman, 2016; Jarousse, 2014). Similarly, my findings indicate that engaging GPs more in decisions could boost their self-esteem and loyalty. The NHS has successfully engaged GPs and managers in learning, communicating and co-planning as a team in a series of leadership and development programmes (White, 2012). A similar leadership programme in Hong Kong could provide a platform for GPs and managers to communicate and learn to work as a team to bring about changes in operational challenges such as drug procurement or coordination of community care.

5.6 Strengths and limitations of the study

Few past studies in Western settings have explored the role of national culture rather than organisational culture on GPs' consultation behaviour (Deschepper et al., 2008; Meeuwesen et al., 2009; Verma et al., 2016). So far, in healthcare communication, the role of organisational culture remains largely unexamined. Applying both of Hofstede's (Table 2 in section 2.2 and Table 4 in section 2.2.2) models, the current study offers a more micro-perspective to generate findings at an organisational and individual level in Hong Kong. Hofstede's cultural dimension theory contains rich concepts across six dimensions of national cultures which have been applied across management and

healthcare communication studies (Borg, 2014; Chiu, 1999; Deschepper et al., 2008; Meeuwesen et al., 2009; Verma et al., 2016). Theoretically, however, this is the first study to apply both of Hofstede's models as analytical frameworks across national and organisational cultures in the healthcare decision-making context. The frameworks have connected societal values, service focus, management style, learning culture and other contextual barriers such as health financing, policies, and service coordination to explain the influences on GPs' consultation style in the current study. The models have also provided a common indicator to compare the influence of national culture with earlier studies on different consultation approaches (Borg, 2014; Deschepper et al., 2008; Meeuwesen et al., 2009).

Conceptually, my work experience with GPs at the Chinese University of Hong Kong has prompted this research. I found my professional network helpful in locating relevant SDM and organisational culture policies in Hong Kong. Nevertheless, it is notoriously difficult to recruit and schedule interviews with GPs and managers in Hong Kong because they were being utilised to their fullest in the healthcare field. This is why Hong Kong, utilizing only 5% of its GDP on healthcare in 2015, has been recognised as the most efficient health system with one of the longest life expectancies in the developed world (Bloomberg, 2015). Another challenge is that organisational culture is a relatively novel concept in Hong Kong, making it even harder to recruit GPs. Most GPs were not aware of or felt challenged to speak about new concepts such as organisational culture or SDM. Nevertheless, my work and study experience in Eastern and Western contexts enhanced the interview context with the GPs with a dual Confucius-western culture, and my work experience as a manager in a private hospital and as a lecturer in the public

hospital enabled deeper analysis with richer themes and conclusions across management, service and training cultures.

For sampling, purposive and snowball methods were used to recruit GPs with different years of experiences, stratified by equal numbers of GPs from public and private sectors. Although the sample size of 19 participants is relatively small, thematic saturation was reached given that no new themes emerged after analysing fourteen interviews with public and private GPs (Mason, 2010; O'Reilly & Parker, 2012). It was harder to recruit and reach thematic saturation among senior managers as they were even busier than GPs since they were involved in both clinical practice and corporate management. However, the purpose of including managers in this study was to reflect on the GPs' view from a top-down perspective rather than to reach thematic saturation.

The response rate, after four phases of postal and snowball invitations (Figure 5), was about 6% in the current study. Some participants joined the study because they knew that my employer was the former Minister of Health. However, there may be some social desirability bias among participants who had personal or work relations with my employer, the ex-Minister of Health in Hong Kong. A few participants appeared quite cautious with their wording during the interview and chose to go deeper in the clinical section of the interview rather than expressing their full emotions towards GPs' wellbeing or existing work policies. For example, one participant began pointing out the implementation deficiencies of the patient-centred care concept advocated by my employer decades ago but then halted and hesitated to share about his/ her personal feelings. In addition, a few GPs admitted they did not fully know about SDM. Still, I observed that a few of them wanted to appear competent by formulating a sensible

answer paraphrasing from the interview questions. Some participants said they usually participated in quantitative surveys or clinical trials with a direct, measurable impact on patient outcomes. Regarding qualitative research, some GPs were dubious as to whether exploring the impact of culture would be meaningful enough to change their clinical practices.

Lastly, my findings may not be representative of a broader population in other care settings such as hospital care, end-of-life care, critical care and home care. However, the purpose of qualitative studies is not to generate findings which can be representative of a larger population. Hence, this study focused on the transferability of the findings through the use of a theoretical or analytical framework in primary care consultations (Lincoln & Guba, 1985; Shenton, 2004).

5.7 Recommendations for future research

My research with GPs and managers has explored the cultural, system, practice and individual influences on GPs' consultation style and concluded that pricing disparity and patient expectations towards western medicine are some of the major barriers (Theme 1.2, p. 122-126 & theme 3.2, p.142-144) to engaging patients in SDM. Further research to explore patients' perceptions and experiences of consultation styles in primary care and their impact on a cultural change towards SDM is necessary.

5.7.1 Cultural change towards SDM through a series of pre-consultation and post-consultation surveys

There was a feeling among the participants in the current study that the younger generation in Hong Kong demanded more transparency in the healthcare process along

the patient journey. The study found informational barriers within and between GPs and patients owing to a lack of time. In 2016, a pilot study on a pre-consultation questionnaire was launched in a group practice in the UK as a proposed solution to the challenge of offering SDM without requiring additional staff or time from GPs (National Health Service England, 2016). The questionnaire was sent to patients before their consultations to collect ideas and concerns about the patients' symptoms, needs or expectations for the upcoming consultation (National Health Service England, 2016). Most patients welcomed the idea and found the survey easy and quick to complete (National Health Service England, 2016). Some GPs reported that it was useful in speeding up the consultation, allowing more time to go deeper into more complex issues with the patients (National Health Service England, 2016). More interaction time in the consultation process shifts GPs from a goal-oriented customer culture to means-oriented customer culture (Table 4) emphasising patients' clinical and psychosocial needs. Therefore, within a highly efficient health system in Hong Kong, it is worth adapting such a pre-consultation survey to assess needs in advance from individuals with chronic disease who are intensive users and who need multiple visits and medications in the HA.

Besides the pre-consultation experience, there is a lack of information about post-consultation experience in primary care. The first region-wide patient survey was conducted by Wong et al. (2012) on patients' satisfaction across public hospitals in Hong Kong. However, the findings may not be fully applicable to the primary care setting nor representative of chronic disease patients seen in the private sector (Wong et al., 2012). The findings were also prone to response or social desirability bias in the presence of a researcher. Future feasibility studies could explore and analyse the potential usage of a pre- and post- consultation survey as an evaluation tool for assessing

the progress of cultural change on patient engagement and SDM. The post-consultation survey could be extended with additional theme-based focus groups to collect and evaluate qualitative data such as patient stories or clinic complaint cases on how the national culture, service focus, management style and learning culture identified in the current study would impact on their communication flow and use of SDM with GPs.

5.7.2 Cultural change towards a more open pricing system in healthcare to balance service demand and allow more time for SDM

My findings have revealed that a large gap in price per consultation HK$45 (£4.50) in the public sector and HK$250 (£25) in the private sector) was causing skewed demand towards public GPs, which impeded their ability to use SDM, with shrinking time for each patient appointment (Hong Kong Hospital Authority, 2017c). This is due to a more closed pricing system among GPs from the private sector, with non-transparent and unclear criteria and process for setting and charging doctor's fees among individual doctors (Legislative Council Panel on Health Services, 2016). Conversely, the public healthcare sector listed standard prices for services across all their institutions. To shift the private sector towards a more open pricing system, the government offered a few public-private partnership schemes (PPP) such as the Elderly Voucher Scheme to encourage patients with stable medical conditions to purchase services at a fixed, subsidised price from private GPs (Hong Kong Hospital Authority, 2018c; The Government of the Hong Kong Special Administrative Region, 2018a, 2018b). Despite this, some patients continued to seek services from public GPs as they were concerned that the subsidy may not be enough to cover their medical and screening costs in the private sector (Wong et al., 2015).

Since 2016, private GPs have been encouraged to participate in the pilot price transparency programme by displaying their fee schedule, budget estimates, service packages and disclosure of claims and billing statistics (Legislative Council Panel on Health Services, 2016). The Health Bureau in Hong Kong believed having a standard price list for crucial medication and primary care services would enhance the openness of the pricing system, hence generating more faith in and demand for utilising private services. It has been reported that patients felt more confident and had more trust in private doctors if they were informed about costs of care and various treatment options before the consultation (Mehrotra, Schleifer, Shefrin, & Ducas, 2018). Future cohort studies need to better understand the role and impact of regulated prices on patients' service utilisation behaviour such as their trust and loyalty towards GPs, and their preferred consultation style across public and private sectors in Hong Kong.

5.8 Conclusion

In recent years, there has been a general drive towards SDM in healthcare policy worldwide (UK Department of Health, 2010, 2012, Hong Kong Hospital Authority, 2012, 2018e; Pollard et al., 2015; The Health Foundation, 2013). The GPs and managers in the current study seemed to welcome SDM in theory, but in practice, there were individual, organisational and system constraints. Organisational culture is a socially constructed and evolving concept which, within healthcare organisations, arises from GPs' interactions with their seniors and peers. This study has identified some positive and negative influences of organisational culture on GPs' practice of SDM with patients in discussions on chronic disease management across public and private healthcare organisations in Hong Kong. In the context of an engaging management style in private

healthcare organisations, private GPs had the potential to use SDM as they were given more freedom and power in prescription decisions as well as care coordination. Since there were no clear directives or training support for SDM in the private sector, private GPs were happy to please the patients with any patient-preferred style in consultations. However, the competitiveness of profit-driven private healthcare in Hong Kong drove private GPs to be more paternalistic, thus doctor-centred. In the public sector, which emphasised patient experience, public GPs who received family medicine training felt readier and wanted to please the patients with SDM. But, under the contradictory influences of the authoritative management style, public GPs felt restrained and powerless as they had limited prescription freedom, nor were they included in policy decisions. They were afraid to challenge their managers and patients, expressing concerns about being blamed for any unpredicted health outcomes. From a psychological perspective, it could be argued that public GPs, as a result of this context of uncertainty, wanted to assert control of the treatment decision with a more paternalistic style. This study also identified the wider influences from Chinese Confucian values, health system policies, financial and care coordination on GPs' practice of SDM or other consultation styles.

This study is based on the views of GPs and senior managers within public or private healthcare organisations in Hong Kong. Under the dual influences of Confucian and democratic values in Hong Kong, the applicability of these results is limited to countries with similar cultural backgrounds, levels of primary care and patterns of economic development in the Eastern world.

Notwithstanding the relatively limited sample, this study reached thematic saturation

and offered a micro-perspective at both organisational and individual level. In terms of theoretical generalisability, this study has advanced theory by applying Hofstede's' models to explain the influences of organisational culture and national culture on GP-patient communication in a Confucian-democratic Asian healthcare setting. The wider contextual impact from the health system, practice and individual factors were also considered when explaining the influence of societal values, service focus, management styles and learning cultures on GPs' consultation styles. The findings have several practical implications on the current governance of GPs, and financing co-payment systems across the public-private sector as barriers to GPs practising SDM. The study has suggested new ways such as a formalised certifying system for primary care doctors and higher GP engagement in corporate decisions as well as care processes to allow more time, flexibility and skill sets to practise SDM. As SDM was set as one of the main goals to improve service quality in the Hong Kong Hospital Authority's 2017-2022 strategic plan (2018b), further research on patient perceptions and experiences is a vital next step in understanding how societal culture shapes their expectation and needs. Lastly, further feasibility studies need to be conducted to explore the use of a pre-consultation for patients to engage in and a post-consultation survey to evaluate cultural change towards SDM in a treatment decision-making context. It would also be interesting to assess the effect of a more transparent pricing system on the patients' expectations and utilisation of public-private services as well as preferred consultation style from GPs in both sectors.

To conclude, the current study has suggested that the social interactions of GPs and their colleagues shape organisational cultures, which in turn influence GPs' consultation style with patients. However, it does not appear that GPs' interactions with patients change

the organisational cultures in my findings. Revisiting Schein's (2010) definition of organisational culture given in Chapter 1 (section 1.9.1), it is not static or one-directional, but an adapted "way to perceive , think and feel" (p.18) among members of an organisation learned through social communication or relationship. My research has explored how organisational culture influences GPs' consultation styles, but what remains unclear is precisely what influences organisational culture. Therefore, more research on the relative influences such as Confucian culture on the identified organisational cultures is needed to understand more comprehensively the relationship between organisational culture and GPs' consultation style.

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Appendix 1 The family medicine training program

1. **Foundation training**	
Hospital-based training **(24 months with 4+ specialities)**	**Core skills:** Diagnosis, assessment, management and appropriate referral of the common medical conditions within primary care settings in the following disciplines: **Mandatory disciplines (3-6 months each)** • Internal medicine, general surgery, obstetrics & gynaecology, paediatrics. **Optional disciplines (3-6 months)** • Psychiatry, ophthalmology, otorhinolaryngology, dermatology, orthopaedics, ICU/ anaesthesia, pathology, microbiology, X-ray, oncology.
Community-based training **(24 months)**	**Core Family Medicine skills** • Patient interviews, history & information gathering, physical examination, investigation, problem formulation and recordkeeping, office and financial management skills, patient education, referral practices, use of community resources, respect for patients' attitude with a different background, rehabilitation principles, medical ethics and law, self-awareness and continuous improvement. **Core public health skills** • Epidemiological research methods, principles on control of diseases, occupational health practice and principles, interpretation of health statistics/data, the role of screening programs, health economics, health services and human resource management.
Basic educational modules (210 hours)	**15 hours of participation in workshop/seminar/meetings on each of the 14 modules:** • Principle and contents of Family Medicine, the consultation process, management in Family Medicine, professional ethics, psychological problems in Family Medicine, preventive care, care of patients with chronic diseases, reproduction and sexuality, community resources, emergency medicine, professional development, practice management, healthcare delivery systems, common symptoms and complaints.
2. Conjoint examination to qualify as a fellow of Family Medicine in Hong Kong and Australia	
Conjoint examination format (HKCFP, FRACGP)	**Part 1: Written exam** • Applied knowledge test from basic modules + key featured problems • Core skills: knowledge, skills and attitudes in Family Medicine in the areas of problem-solving skills, communication skills, practice management, physical examination, and office procedure. **Part 2: Objective structured clinical examination (OSCE)** • 14+ OSCE station to test consultation skills with surrogate patients including diagnostic skill, patient management skill, physical examination skills with problem-solving components, oral/ communication skill, critical appraisal skill, skill in handling a general consultation and clinical interpretations of X-rays, clinical

	photos and laboratory data.
Election of fellowship in Australia and Hong Kong	**Requirements to be considered a FRACGP/HKCFP fellow:** • Success in the conjoint examination does not automatically entitle a candidate to become eligible for election to the degrees of Fellow of Hong Kong College of Family Physicians (FHKCFP) and Fellow of Royal Australian College of General Practitioners (FRACGP). The Board of Conjoint Examination will recommend the successful candidates to the councils of both colleges for election to fellowship.
3. **Higher training**	
Two years of community-based higher training	Regular supervision and evaluation of a clinical supervisor in the community and a mentor in Family Medicine in the following knowledge, skills and educational programs: • Principles and concepts of working with families, family interview and counselling, difficult consultations and ethical dilemmas clinical audit and research in Family Medicine, preventive care and patients with special needs, health economics and advanced practice management.
4. Exit examination	
Exit exam format	**Part 1: Clinical audit report/ research report (either one)** • The clinical audit report assesses the candidate's knowledge, skills and attitudes in critical appraisal of information, self-audit, quality assurance and continuous professional improvement. • The research report assesses the candidate's ability to conduct a research project. **Part 2: The practice assessment** • Assesses the candidate's knowledge, application of skills and ability to organise and manage an independent Family Medicine practice which will be carried out on site at the candidates' practice. **Part 3: The consultation skills assessment** • Assesses the candidate's knowledge, skills and attitude in communication, problem-solving, working with families and management in different types of Family Medicine consultations.
5. An alternative route to entry-exit examination	
Requirement	**Basic requirement: For medical practitioners fully registered with MCHK and with a recognised intermediate Family Medicine qualification as approved by HKCFP:** **Hong Kong** • Fellow of Hong Kong College of Family Physicians **Canada & US** • Certification in Family Medicine from the College of Family Physicians of Canada • Diplomate of the American Board of Family Practice • Fellow of American Academy of Family Physicians • Fellow of the College of Family Physicians of Canada **Australasia** • Fellow of Royal Australian College of General Practitioners • Fellow of Royal New Zealand College of General Practitioners • Member of Royal New Zealand College of General Practitioners

	UK • Member of Irish College of General Practitioners • Fellow of Royal College of General Practitioners • Member of Royal College of General Practitioners
6. After exit examination – the election of fellowship in Family Medicine from the Hong Kong Academy of Medicine	
Requirement	After completion of higher training, candidates awarded with a fellowship from the Hong Kong College of Family Physicians (FHKCFP) may seek the Board of Vocational Training and Standards' approval to be elected for a further fellowship from the Hong Kong Academy of Medicine, FHKAM (Family Medicine)

Appendix 2 Definitions of organisational culture from different theorists

Table 1. Organizational Culture by Theorist

Name	Discipline	Definition	Levels
Schein (1987)	Social psychology	Culture is a pattern of shared basic assumptions, invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration that has worked well enough to be considered valid, and, therefore, is to be taught to new members of the group as the correct way to perceive, think, and feel in relation to those problems *reframing*.	• Artifacts (*visible structures and processes*) • Values (*strategies, goals and philosophies, less visible*) • Underlying assumptions (*least evident, unconscious, taken-for-granted beliefs, perceptions, thoughts and feelings*)
Alvesson (2002)	Sociology?	Culture is regarded as a more or less cohesive system of meanings and symbols, in terms of which social interaction takes place. Social structure is regarded as the behavioral patterns which the social interaction itself gives rise to.	• It is "below the surface" • What matters is how people interpret and relate to actions (culture) • Dual nature of culture: can be useful and constraining
Siehl and Martin (1983)	Psychology/sociology and business (respectively)	OC is a "normative glue and a set of values, social ideals or beliefs that organization members share."	None
Pettigrew (1979)	Business	The system of generally and collectively accepted meanings which operate for a certain group on a certain occasion.	None
Schneider (2000)	Business and psychology	No original definition; combined previous work to arrive at industry consensus.	None
Hofstede et al. (1990)	"Social science"	Cultures manifest themselves, from superficial to deep, in symbols, heroes, rituals, and values. Organizational cultures differ mainly at the levels of symbols, heroes, and rituals, together labeled as "practices."	Symbols, heroes, rituals, values

(Bellot, 2011, p.31)

Appendix 3 Search Strategy
Database: Ovid MEDLINE(R) 1946 to Present with Daily Update
Search Strategy: on October 13, 2016

1 physicians/ or general practitioners/ or physicians, family/ or physicians, primary care/ (99962)
2 ((social or organi#ation*) and (culture* or norms* or value* or spirit* or assum* or belief* or policy or policies)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (219058)
3 Physician-Patient Relations/ (65296)
4 (Shared decision making or partnership* or shared decision*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (28397)
5 Clinical Decision-Making/ (766)
6 (Paternalistic model or authoritarian model or physician* choice* or doctor* choice or physician* center* or physicians centre* or physician* recommend* or doctor* recommend* or physician* decision* or doctor* decision*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (3433)
7 (informed choice* or informed choice* model or informed patient* choice* or patient* choice* or patient center* or patient centre*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (24272)
8 consultation*.mp. (101981)
9 Decision Making/ (77925)
10 2 or 3 or 5 or 8 or 9 (440516)
11 4 or 6 or 7 (54853)
12 1 and 10 and 11 (882)
13 limit 12 to (English language and humans and "all adult (19 plus years)") (283)

Appendix 4 Data Extraction template

Study Ref: 1st Author/ Publication date: Reviewer: JC Reviewed on : / /2016		SRQR item	Provided?
1	Title:	S1	[ ]yes [ ]no
2	Abstract:	S2	[ ]yes [ ]no
	Country:		
	Introduction		
3	Description of phenomenon studied & significance (Main focus):	S3	[ ]yes [ ]no
4	Aim & objectives: Research questions:	S4	[ ]yes [ ]no
	Methods		
5a 5 b 5c	5a Study Design: [ ]Mixed method [ ]Qualitative 5b Methodological orientation and theory: [ ]Grounded theory [ ]Thematic analysis [ ]phenomenology [ ]discourse analysis [ ]content analysis [ ]ethnography [ ]narrative analysis [ ]Mixed method:_____[ ] Not declared 5c Research paradigm: [ ]Constructivist [ ]interpretivist [ ]realist [ ]post positivist [ ]mixed paradigm of : _____& _____ [ ]Not declared Theoretical Framework:	S5	[ ]yes [ ]no
6a 6 b	Research characteristics& reflexivity: [ ] Not declared [ ]No [ ]Yes → 6b) Reason: [ ]Researcher's qualification or experience [ ]relationship with participant, [ ]assumption or presupposition [ ] potential or actual interaction	S6	[ ]yes [ ]no
7a 7 b 7c	Study Setting: 7a [ ]hospital [ ] teaching hospital [ ] academic institution [ ]clinic[ ]Not declared 7b [ ]private [ ]public[ ] Not declared 7c Presence of non-participant: [ ] Not declared [ ]No [ ]Yes → _____	S7	[ ]yes [ ]no
8a -d	Participant selection: 8a Sample Size: 8b Non-participation/Drop out: [ ] Not declared [ ]No [ ]Yes = _____ 8c Sampling strategy : [ ]purposive [ ]convenience [ ]snowball [ ]consecutive [ ] Not declared 8d Recruitment setting: _____	S8	[ ]yes [ ]no
9	Approval from ethics board: [ ] Not declared [ ]No [ ]Yes	S9	[ ]yes [ ]no
10a -c	Data collection Year start_____ Year End_____ 10a Format: [ ] semi-structured interview [ ] focus group [ ] mixed method:_____ [ ] Not declared 10b Duration: Mean _____mins	S10	[ ]yes [ ]no

	10c Data saturation discussed : [ ] Not declared [ ]No [ ]Yes		
11a-d	Data instrument: 11a Interview guide(questions, prompts, guides): [ ] Not declared [ ]No [ ]Yes →11b _____questions 11c Is interview guide pilot tested: [ ] Not declared [ ]No [ ]Yes 11d Audio/visual recording: [ ] Not declared [ ]No [ ]Yes 11e Field notes: [ ] Not declared [ ]No [ ]Yes	S11	[ ]yes [ ]no
12a-f	Participant Characteristics: 12a Age: _____ mean:_____ , [ ] Not declared 12b Gender: Male=_____, Female= _____ 12b Years of experience: _____years [ ] Not declared 12c Practice setting: [ ]private [ ]public [ ] Not declared 12d Specialty in primary care: [ ]General Practice [ ]Family Medicine [ ] Not declared	S12	[ ]yes [ ]no
	12e Principal experiences explored: [ ]Decision making on treatment →_____ [ ]Others :_____ _____ 12f Communication approach: [ ]Paternalistic (P) [ ]Shared decision making (SDM)[ ]informed choice(IC) [ ] between P/SDM [ ]between SDM/IC [ ]Not declared		
13	Data processing: 13a Transcription returned to participants for comments: [ ] Not declared [ ]No [ ]Yes 13b Software: [ ] Not declared [ ] Nvivo [ ] Atlas.ti [ ]SPSS [ ]Others:_____	S13	[ ]yes [ ]no
14a-d	Data analysis 14a Analysis method: 14b Number of data coders :_____ 14c Coding tree description: [ ] Not declared [ ]No [ ]Yes 14d Themes generation: [ ]Deductive (identified in advance) [ ] Inductive (derived from data) 14e Analytical Approach: _____	S14	[ ]yes [ ]no
15	Trustworthiness and credibility: [ ] Not declared[ ]Respondent validation in 13a) [ ]audit trail [ ]triangulation	S15	[ ]yes [ ]no
	Result/ Findings		
16a-c	Synthesis & interpretation 16a Clarity of major themes: [ ] Not declared [ ]No [ ]Yes 16b Clarity and discussion of minor themes: [ ] Not declared [ ]No [ ]Yes 16cOutcome: [ ]development of theory/model [ ] integration with earlier research/ theory [ ] Not declared	S16	[ ]yes [ ]no
17a-c	Links to empirical data 17a Quotes from participants presented to illustrate themes : [ ] Not declared [ ]No [ ]Yes 17b Was each quote identified (e.g. participant no.) [ ] Not declared [ ]No [ ]Yes	S17	[ ]yes [ ]no

	17c Consistency between data presented and the findings: [ ] Not declared [ ]No [ ]Yes		
	Discussion		
18a-c	Summary of main findings, conclusion, transferability 18a Summary of main findings: [ ] Not declared [ ]No [ ]Yes 18bTransferability of the findings discussed:[ ] Not declared [ ]No [ ]Yes 18c Contribution of findings (e.g. challenge or support earlier works) discussed: [ ] Not declared [ ]No [ ]Yes	S18	[ ]yes [ ]no
	Others		
19	Trustworthiness and Limitations of findings discussed: [ ] Not declared [ ]No [ ]Yes	S19	[ ]yes [ ]no
20	Conflict of interest statement: [ ] Not declared [ ]No [ ]Yes	S20	[ ]yes [ ]no
21	Funding source: [ ] Not declared [ ]No [ ]Yes	S21	[ ]yes [ ]no
	Comments		

(O'Brien et al., 2014; Pearson, 2014)

Appendix 5 Comprehensiveness of reporting assessment of included studies using the SQRQ checklist

	Reporting items	No (%) (n=15 studies)	References of studies reporting each item
	Title and Abstract		
S1	Title	15(100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S2	Abstract	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
	Introduction		
S3	Problem identification	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S4	Aims and research questions	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
	Methods		
S5	Qualitative approach & Research Paradigm	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S6	Research characteristics& reflexivity	7 (46.7%)	(Gray, 2011; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Sousa, 2007; Talen et al., 2008; VanRoy et al., 2013)
S7	Context	12 (80%)	(Elwyn et al., 1999; Gray, 2011; Luymes et al., 2016; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S8	Sampling	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S9	Ethical issue	10 (66.7%)	(Gray, 2011; Karasz et al., 2012; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Schuling et al.,

			2012; Sousa, 2007; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013)
S10	Data collection	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S11	Data instrument	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S12	Unit of study: Participant characteristics	13 (86.7%)	(Elwyn et al., 1999; Gray, 2011; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S13	Data processing	7 (46.7%)	(Karasz et al., 2012; McMullen, 2012; Saba et al., 2006; Sousa, 2007; Stevenson, 2003; Tentler et al., 2008; Vegni et al., 2005)
S14	Data analysis	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S15	Trustworthiness and credibility	14 (93.4%)	(Elwyn et al., 1999; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
	Results/ Findings		
S16	Synthesis & interpretation	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
S17	Links to empirical data	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
	Discussion and Conclusion		
S18	Summary of main findings, conclusion, transferability	15 (100%)	(Elwyn et al., 1999; Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)

S19	Limitations	13 (86.7%)	(Gray, 2011; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Talen et al., 2008; Tentler et al., 2008; VanRoy et al., 2013; Vegni et al., 2005)
	Others		
S20	Conflict of interest	10 (66.7%)	(Elwyn et al., 1999; Karasz et al., 2012; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Tentler et al., 2008; VanRoy et al., 2013)
S21	Funding	12 (80%)	(Elwyn et al., 1999; Karasz et al., 2012; Lipman, 2004; Luymes et al., 2016; McMullen, 2012; Robins et al., 2011; Saba et al., 2006; Schuling et al., 2012; Sousa, 2007; Stevenson, 2003; Talen et al., 2008; Tentler et al., 2008)

(O'Brien et al., 2014, p.3-4)

Appendix 6 Appraisal of study quality using Critical Appraisal Skills Programme (CASP) tool

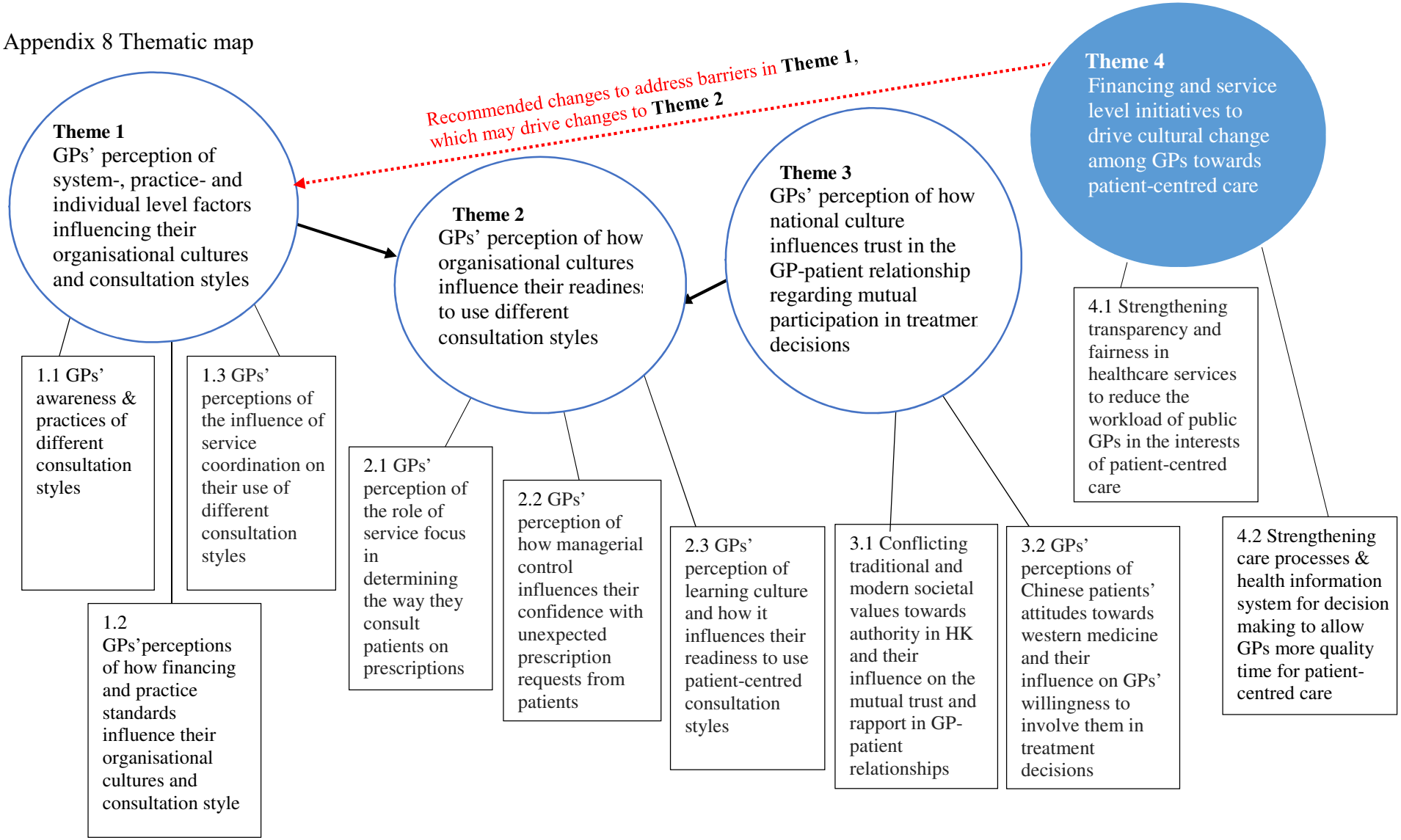
CASP criteria	Elwyn et al. 1999	Gray 2011	Karasz et al. 2011.'	Lipman et al. 2004	Luymes et al. 2016	McMullen 2012	Robins et al. 2011	Saba et al. 2006	Schuling et al. 2012	Sousa 2007	Stevenson 2003	Talen et al. 2008	Tentler 2008	Van Roy et al. 2013	Vegni et al. 2005
Ref	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15
1. Research Design	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3
2.Sampling Strategy	3	3	3	3	3	1	2	2	3	3	2	1	3	3	2
3. Data collection	2	3	1	3	3	2	3	3	3	2	2	2	3	3	1
4. Reflexivity	Not stated	2	Not stated	3	1	1	Not stated	Not stated	Not stated	2	Not stated	2	1	2	Not stated
5. Ethical issues	Not stated	2	1	1	3	3	3	1	2	1	1	1	3	2	1
6. data analysis	1	2	3	3	3	2	3	3	3	2	2	3	3	3	2
7. Findings	3	3	3	3	3	3	3	3	3	3	2	3	3	3	2
8. Research value	2	2	3	3	3	2	2	3	2	2	1	2	2	2	3
Total Score Out of 24	**14**	**20**	**17**	**22**	**22**	**17**	**19**	**18**	**19**	**18**	**12**	**17**	**21**	**21**	**14**

Appendix 7 Key Phases of Thematic analysis

Key Phases	Action taken in each step
Step 1: Familiarising with the data	• Active reading (look for meaning and patterns) of the included studies to fully grasp the depth and breadth of the content. Drop down ideas and thoughts for coding along the way. • Constructionist Paradigm: examined how events, realities, meanings, experiences are socially produced in physicians' clinical practice.
Step2: Codes generation	• Inductive approach: codes identified are strongly linked to data, coding the data without trying to fit it into a pre-existing coding frame • Both Semantic coding and Latent coding approach were used • Open Coding (line by line): labelling, comparing and sorting the data into meaningful groups systematically, full attention is given to each data item manually • Inclusive coding method where a little part of the surrounding comment or data is kept for each code • The identified codes were matched up with data extracts that reflected the codes using Nvivo.
Step3: Searching for themes	• Themes were formed by sorting the relationship between codes and themes into key overarching themes, subthemes and orphan themes • Focus: A theme is a patterned response which captured the structure/ assumption/ meaning of the research question. The themes would reflect the entire dataset instead of a particular area • A thematic map was drawn to visualise pattern and seek further comments from supervisors
Step4: Reviewing themes	• Refine, expand, collapse or rework identified themes for internal homogeneity and external heterogeneity to the coded extracts and the entire data set. • Level 1 review (reliability): All collated extracts were critically examined for its fitness to the theme and form a coherent pattern • Refinement of the thematic map from step 3 to visualise the relationship between themes • Level 2 review (validity): Re-read the entire data set to see if the themes worked in relation to the dataset and coded any extra data which may have been missed in the earlier coding stage • Data saturation is reached when nothing substantial at this reviewing stage is added to the thematic frame.
Step5: Naming and defining themes	• Define and name by returning to the collated data extracts for each theme, organise them into a coherent and internally consistent hierarchy with complementary narratives. • Each theme was reviewed to make sure their "stories" were not overlapping too much yet fitted to the broader dataset and related to the research question. To test clarity, the principal researcher wrote a brief description (scope and content) for each theme and summarised in a table (Table 4). Further refinement is necessary if the table does not make sense.
Step6: Final Analysis and Write-up	• Telling a complete story within and across themes using the descriptive and analytical account, support the argument with vivid data extracts - Sufficient data extract to demonstrate the prevalence of themes - Choose vivid example which captures the essence of the argument - Approach: Concise, coherent, logical, non-repetitive, interesting

Adapted from Braun &Clarke, (2006)

Appendix 8 Thematic map



Appendix 9 List of public hospitals and clinics within 7 hospital clusters[1] in Hong Kong

73 outpatient clinics (general practice & family medicine)
1. Aberdeen Jockey Club General Outpatient Clinic
2. Anne Black General Out-patient Clinic
3. Ap Lei Chau General Out-patient Clinic
4. Caritas Medical Centre Family Medicine Clinic
5. Central District Health Centre General Out-patient Clinic
6. Central Kowloon Health Centre
7. Chai Wan General Out-patient Clinic
8. Cheung Sha Wan Jockey Club General Out-patient Clinic
9. East Kowloon General Out-patient Clinic
10. Fanling Family Medicine Centre
11. Ha Kwai Chung General Out-patient Clinic
12. Hong Kong Buddhist Hospital General Out-patient Clinic
13. Hung Hom Clinic
14. Kam Tin Clinic
15. Kennedy Town Jockey Club General Out-patient Clinic
16. Kowloon Bay Health Centre General Out-patient Clinic
17. Kwong Wah Hospital GOPD
18. Kwun Tong Community Health Centre
19. Lady Trench General Out-patient Clinic
20. Lam Tin Polyclinic General Out-patient Clinic
21. Lee Kee Memorial Dispensary
22. Lek Yuen General Out-patient Clinic
23. Li Po Chun General Out-patient Clinic
24. Ma On Shan Family Medicine Centre
25. Madam Yung Fung Shee Health Centre
26. Mona Fong General Out-patient Clinic
27. Mrs Wu York Yu General Out-patient Clinic
28. Mui Wo General Out-patient Clinic
29. Nam Shan General Out-patient Clinic
30. Ngau Tau Kok Jockey Club General Out-patient Clinic
31. North Kwai Chung General Out-patient Clinic
32. North Lamma General Out-patient Clinic
33. North Lantau Community Health Centre
34. Our Lady of Maryknoll Hospital Family Medicine Clinic
35. Peng Chau General Out-patient Clinic
36. Robert Black General Out-patient Clinic
37. Sai Wan Ho General Out-patient Clinic

[1] The Public Hospitals and clinics in Hong Kong are organised into seven hospital clusters based on geographical locations (Hong Kong Hospital Authority, 2017b).

38. Sai Ying Pun Jockey Club General Out-patient Clinic
39. Sha Tau Kok General Out-patient Clinic
40. Shatin (Tai Wai) General Out-patient Clinic
41. Shau Kei Wan Jockey Club General Out-patient Clinic
42. Shek Kip Mei General Out-patient Clinic
43. Shek Wu Hui Jockey Club General Out-patient Clinic
44. Shun Lee General Out-patient Clinic
45. Shun Tak Fraternal Association Leung Kau Kui Clinic
46. Sok Kwu Wan General Out-patient Clinic
47. South Kwai Chung Jockey Club General Out-patient Clinic
48. St. John Hospital General Out-patient Department
49. Stanley General Out-patient Clinic
50. Ta Kwu Ling General Out-patient Clinic
51. Tai O Jockey Club General Out-patient Clinic
52. Tai Po Jockey Club General Out-patient Clinic
53. Tin Shui Wai Community Health Centre
54. Tin Shui Wai Health Centre
55. Tseung Kwan O General Out-patient Clinic
56. Tseung Kwan O Jockey Club General Out-patient Clinic
57. Tsing Yi Cheung Hong General Out-patient Clinic
58. Tsing Yi Town General Out-patient Clinic
59. Tuen Mun Clinic
60. Tuen Mun Wu Hong Clinic
61. Tung Wah Eastern Hospital General Out-patient Department
62. Tung Wah Hospital GOPC
63. Violet Peel General Out-patient Clinic
64. Wan Tsui General Out-patient Clinic
65. Wang Tau Hom Jockey Club General Out-patient Clinic
66. West Kowloon General Out-patient Clinic
67. Wong Siu Ching Family Medicine Centre
68. Wu York Yu General Out-patient Clinic
69. Yan Chai Hospital General Practice Clinic
70. Yan Oi General Out-patient Clinic
71. Yau Ma Tei Jockey Club General Out-patient Clinic
72. Yuen Chau Kok General Out-patient Clinic
73. Yuen Long Jockey Club Health Centre

43 Public Hospitals

1. Alice Ho Miu Ling Nethersole Hospital
2. Bradbury Hospice
3. Caritas Medical Centre
4. Castle Peak Hospital
5. Cheshire Home, Chung Hom Kok

6. Cheshire Home, Shatin
7. Grantham Hospital
8. Haven of Hope Hospital
9. Hong Kong Buddhist Hospital
10. Hong Kong Children's Hospital
11. Hong Kong Eye Hospital
12. Hong Kong Red Cross Blood Transfusion Service
13. Kowloon Hospital
14. Kwai Chung Hospital
15. Kwong Wah Hospital
16. MacLehose Medical Rehabilitation Centre
17. North District Hospital
18. North Lantau Hospital
19. Our Lady of Maryknoll Hospital
20. Pamela Youde Nethersole Eastern Hospital
21. Pok Oi Hospital
22. Prince of Wales Hospital
23. Princess Margaret Hospital
24. Queen Elizabeth Hospital
25. Queen Mary Hospital
26. Ruttonjee Hospital
27. Shatin Hospital
28. Siu Lam Hospital
29. St. John Hospital
30. Tai Po Hospital
31. Tang Shiu Kin Hospital
32. The Duchess of Kent Children's Hospital at Sandy Bay
33. Tin Shui Wai Hospital
34. Tsan Yuk Hospital
35. Tseung Kwan O Hospital
36. Tuen Mun Hospital
37. Tung Wah Eastern Hospital
38. Tung Wah Hospital
39. Tung Wah Group of Hospitals -Fung Yiu King Hospital
40. TWGHs Wong Tai Sin Hospital
41. United Christian Hospital
42. Wong Chuk Hang Hospital
43. Yan Chai Hospital

Appendix 10 Invitation Letter (Physician version)

香港中文大學 The Chinese University of Hong Kong Lancaster University

December 19, 2016

Dear Doctors,

Seeking your expert opinion in an interview

I would like to invite you to share your expert opinion in a face-to-face interview exploring the "Organisational culture and its influence on physicians' consultation style in Hong Kong". **This study will focus on doctors' perspective to see if anything could be done at the organisational level to make consultation a more pleasant and effective experience for both doctors and patients.** This research is approved by the Lancaster University in the United Kingdom and the Chinese University of Hong Kong. Please kindly telephone or Please kindly telephone Miss Joyce Chan (Tel: 22528703/ 63866954) or return the REPLY SLIP to join the study.

For enquiries or participation, please do not hesitate to call the research manager, Miss Joyce Chan at (Tel: 22528703/ 63866954) or hychan@cuhk.edu.hk for more details.

The following documents are attached to this welcome pack:

1. Information sheet
2. Sample consent form
3. Sample discussion topics
4. Expression of interest form

Yours sincerely,

Professor Fung Hong, JP
Professor of Practice in Health Services Management

JC School of Public Health and Primary Care
Faculty of Medicine
The Chinese University of Hong Kong

香港中文大學 The Chinese University of Hong Kong Lancaster University

Participant Information Sheet (Physician Version)

Study Title: Organisational culture and its influence on physicians' consultation style in Hong Kong

My name is Joyce Chan, and our research team is conducting this research on behalf of the Jockey Club School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong. The qualitative study will be submitted for a PhD in Public Health programme at Lancaster University in the United Kingdom.

What is the study about?

In some countries, physicians are being encouraged to adopt a consultation style in which patients play an active role in making decisions about their medication. In medical consultations which adopt this model of 'Shared Decision-Making' decisions about medication are mutually agreed by both the physician and patient. This is a new approach which seeks to empower patients, but evidence suggests not all patients and physicians have welcomed it; some favour a more traditional consultation style where patients simply follow physicians' advice.

Therefore, this qualitative study aims to explore physicians' perception of culture for decision-making and whether it influences their consultation style when discussing medications. We would also like to hear your suggestions on the readiness of physicians' to practice Shared-Decision Making during consultations and whether any organisational barriers are preventing them from doing so.

Why have I been approached?

You have been approached because the study requires information from physicians:

- working in the General Outpatient Clinics or Family Medicine Specialist Clinics operated under the Hong Kong Hospital Authority (public sector) ;
- working in the General Practice under one of the main private medical groups (UMP Healthcare Holdings Limited, Town Health International Medical Group Limited, Human Health or Quality HealthCare Medical Services Limited) in Hong Kong;
- and have a minimum of one year of full-time experience for outpatient consultations in general practice.

Do I have to take part?

No. It is completely up to you to decide whether or not you take part. Your participation in this study is voluntary. You may choose not to participate or may withdraw your consent to participate at any time up to two weeks after the interview. You will not be penalized in any way when you decide not to participate or to withdraw from this study, and it will not affect your rights in future employment within public or private healthcare organisations in Hong Kong.

What will I be asked to do if I take part?

If you decide you would like to take part, you would be asked to express your views and opinions in an individual in-depth interview (takes up to 1 hour to complete).

The interview will take place at one of the following sites: the Jockey Club School of Public Health and Primary Care; your working institution; a meeting or conference room which cannot be overheard; by telephone or Video-conferencing system such as WebEx or Skype.

*Participants using Skype should be aware that the internet cannot be guaranteed to be a completely secure means of communication.

Will my data be Identifiable?

The personal data you provide is confidential. The study will adopt the Hong Kong Personal Data Privacy Ordinance (Cap.486) and Hospital Authority data protection policy to "protect the confidentiality and anonymity of a person in relation to personal data" throughout the research process.

The individual interview will be audiotaped to enable analysis, but your identity will keep strictly confidential in recordings and interview notes, represented by a study reference number (E.g. SDM001)

The data collected for this study will be stored securely by the researchers and only the researchers conducting this study will have access to this data:

- The original files on digital recorders will be deleted immediately after the file transfer is secured. Audio recordings will be destroyed and deleted by the researcher once the project has been submitted for publication.
- Hard copies of the study notes will be kept in a locked cabinet.
- Upon interview completion, the notes and recordings will be transferred and stored within 48 hours to a computer by the researcher. The files on the computer will be encrypted (that is no-one other than the researcher will be able to access them) and the computer itself password protected.
- At the end of the study, hard copies of raw materials will be kept securely in a locked cabinet for one year. At the end of this period, they will be destroyed by the researcher.
- The typed version of your interview will be made anonymous by removing any identifying information, including your name. Anonymised direct quotations from your interview may be used in the reports or publications from the study, so your name will not be attached to them.
- All your personal data will be confidential and will be kept separately from your interview responses.
- A person external to the research team will be transcribing the audio-interview data for data analysis. A confidentiality agreement will be signed by the transcriber.

There are some limits to confidentiality:

- If what is said in the interview makes me think that you, or someone else, are at significant risk of harm, I will have to break confidentiality and speak to a member of staff about this. If possible, I will tell you if I have to do this.

What will happen to the results?

The anonymised results will be summarised and reported in a thesis and may be submitted for publication in an academic or professional journal or at an academic conference.

Are there any risks?

This study will bear the minimal risk of harm to participants and researchers. If you experience any distress from the interview, you are free to withdraw from the interview anytime. The counselling support 24 hours hotline and service information provided by the government of the Hong Kong Special Administrative Region is included in the Participant Information Sheet.

Are there any benefits to taking part?

Although you may find participating interesting, there are no direct benefits in taking part in the interview.

Who has reviewed the project?

This study has been reviewed and approved by the "Faculty of Health and Medicine Research Ethics Committee of Lancaster University" and the "Survey and Behavioural Research Ethics Committee of the Chinese University of Hong Kong".

Where can I obtain further information about the study if I need it?

If you have any questions about the study, please contact the research team for further details:
Miss Joyce Chan Tel: (+852) 2252 8703
Principle Investigator of the research study, Email: hychan@cuhk.edu.hk

Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Professor Martin Wong, Tel: (+852) 3943 6897
Head of Survey and Behavioural Research Ethics Committee of the Chinese University of Hong Kong, Email: ssinfo@cuhk.edu.hk

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Professor Bruce Hollingsworth, Tel: +44 (0)1524 594154
Head of Division of Health Research Title; Email: b.hollingsworth@lancaster.ac.uk
Division of Health Research
Lancaster University
Lancaster
LA1 4YG

If you wish to speak to someone outside of the PhD of Public Health Doctorate Programme, you may also contact:

Professor Roger Pickup Tel: +44 (0)1524 593746
Associate Dean for Research Email: r.pickup@lancaster.ac.uk
Faculty of Health and Medicine
(Division of Biomedical and Life Sciences)
Lancaster University
Lancaster
LA1 4YG

Resources in the event of distress

Should you feel distressed either as a result of taking part or in the future, the following resources may be of assistance.

24 hours Mental Health information hotline (The Mental Health Association of Hong Kong):
Tel: (+852) 2772 0047 Website: http://www.mhahk.org.hk/chi/sub2_1_service_1_4.htm
Other Adult Counselling services Hotline and community resources:

Website: http://www.edb.gov.hk/en/student-parents/crisis-management/helpline-community-resources/index.html

Thank you for taking the time to read this information sheet.

Appendix 12 Expression of interest form (Physician Version)

香港中文大學 The Chinese University of Hong Kong Lancaster University

Expression of interest for the study (Physician Version)

Study Title: Organisational culture and its influence on physicians' consultation style in Hong Kong

After reading the participation information sheet, please put a tick in the appropriate box to express your interest in the study.

☐ **YES**

I would like **to participate and share my opinions** in an individual interview

☐ **NO**

I am not interested in the study and **do not wish to** be contacted further.

Please contact me on the details below:

NAME: _____SIGNATURE:_____

PHONE: _____EMAIL: _____

Please return the form to indicate your interest in this study by one of the following methods (**a prepaid returned envelope is attached**) or:

1. By telephone: Contact Miss Joyce Chan, the Co-Principle investigator at **Tel: (+852) 2252 8703** during office hours (Mondays to Fridays: 9 am to 530pm)
2. By Fax: (+852) 2145 7489
3. By Email: **hychan@cuhk.edu.hk;**
4. By Post: Rm 509, The Jockey Club School of Public Health and Primary Care, Prince of Wales Hospital, Shatin, N.T., Hong Kong;

If you have any questions about the study, please contact the Principle investigator at:

Miss Joyce Chan, Tel: (+852) 2252 8703, Email: hychan@cuhk.edu.hk

Appendix 13 Consent Form (Physician Version)

香港中文大學 The Chinese University of Hong Kong Lancaster University

Study Title: Organisational culture and its influence on physicians' consultation style in Hong Kong

We are asking if you would like to take part in a research project. The purpose of this study is to explore the perception of decision-making culture within the healthcare organisation and how it influences physicians' consultation style during medication consultations.

Before you consent to participate in the study, we ask that you read the participant information sheet and mark each box below with your initials if you agree. If you have any questions or queries before signing the consent form, please speak to the Principle investigator, Joyce Chan.

Please initial each statement

1. I confirm that I have read the information sheet and fully understand what is expected of me within this study	
2. I confirm that I have had the opportunity to ask any questions and to have them answered.	
3. I understand that my interview will be audio recorded and then made into an anonymised written transcript.	
4. I understand that audio recordings will be kept until the research project has been submitted for examination.	
5. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason up to two weeks after the interview without my career opportunities or legal rights being affected.	
6. I understand that once my data have been anonymised and incorporated into themes, it might not be possible for it to be withdrawn, though every attempt will be made to extract my data, up to two weeks after the interview.	
7. I understand that the information from my interview will be pooled with other participants' responses, anonymised and may be published	
8. I consent to information and quotations from the interview being used in reports, conferences and training events.	
9. I understand that any information I give will remain strictly confidential and anonymous unless it is thought that there is a risk of harm to myself or others, in which case the principal investigator will need to share this information with her research supervisor.	
10. I consent to Lancaster University keeping written transcriptions of the interview for 1 year after the study has been published.	
11. I consent to take part in the above study.	

Name of Participant_____ **Signature**_____**Date**_____

Name of Researcher_____ **Signature**_____**Date**_____

Appendix 14 Discussion guide (Physician version)

香港中文大學 The Chinese University of Hong Kong Lancaster University

Study Title: Organisational culture and its influence on physicians' consultation style in Hong Kong

Individual discussion guide (Physician version)

Part 1 General Questions

Practice Information

P___ interview: _____mins

	Over the past 12 months of practice:			
1	Nature of Practice:	Public	Private	
2	How many physicians are there on the premises?	_____ Physicians		
3	Location of practice: New Territories/ Kowloon/ HK island	NT	Kowloon	HK island

Patient Characteristics

	Over the past 3 month of practice:	
4	Average Number of patients you see per week:	_____patients
5	Percentage of patients seen in a week **who are ≥ 65 years old**	%
6	For those ≥ 65 years old, the percentage of patients **who have ONE chronic condition/disease**	%
7	% of patients who **have at least TWO chronic condition/disease**	%
8	**Average number of chronic diseases** in patients:	_____diseases
9	**Average number of medications** taken by patients with chronic diseases:	_____medications
10	**Average time spent** on each Chronic disease patient:	_____mins
11	What is the price of the **consultation fees** (for Cash patient)?	$_____HKD

Professional background

12	Your Gender is:	
13	Your Age is:	
14	Your discipline is: Family Medicine (FM)/ General Practice (GP)	FM/ GP/ others:_____

15a 15b	Years of (Full-time) experience **in this organization**: Years of (Full-time) experience in family medicine or general practice:	_____years _____years
16	Have you **passed the Family Physician exam** offered by the Hong Kong College of Family Physicians (HKCFP)?	Yes / No / In Progress
17	Have you **enrolled/completed the Family Physician training** offered by the Hong Kong College of Family Physicians (HKCFP)?	Yes/ No/ In Progress
18	Have you **attended any workshop or training** regarding "Shared Decision Making? If yes, How many times?	Yes, _____times No/ Coming Soon
19	Which organisation provided the Shared-Decision Making training for you? (HKMA/HKCFP)	HKMA /HKCFP/ Others

Part 2: Discussion guide (Physician version)

Opening question: Do you find it easy to agree about medication with patients?

Introduction 1 (Show the table in Supplementary information 1): In some countries, physicians are being encouraged to adopt a consultation style in which patients play an active role in making decisions about their medication. Shared Decision-Making" is a new approach which seeks to empower patients, but evidence suggests not all patients and physicians have welcomed it; some favour a more traditional consultation style where patients simply follow physicians' advice. In medical consultations which adopt this 'Shared Decision-Making' model, decisions about medication are mutually agreed by both the physician and patient. We are interested in how you or physicians in your organization interact with patients (with chronic conditions/diseases) in the decision-making and discussion process.

Opening question: There is a movement towards mutual decision making between patients and physicians worldwide; are you practising this approach? If yes, could you think of some treatment discussed using this approach?

(Probe_opening: If no response give examples of decisions on medication treatment(s) such as drug selection, dosage, method of administration etc.)

1. **How do you discuss and reach a medication decision with (chronic conditions) patients (Show the table in supplementary information 1)? Where did you learn this?**
   (Probe 1: If no response, refer back to supplementary information 1 and asks the participants if is it more like the physicians tell patients what to do and they follow; a mutual discussion and reaching a final decision; or physicians lay out all options and let the patient make the final decision)

2. **The Hospital Authority pushed forward "patient engagement" in the "Strategic Service Framework for Elderly Patient (2012)". What do you think "Patient engagement" is? Is it important for deciding on medication treatment during the consultation?**

3. **Do (chronic diseases) patients actively raise medication-related questions with you?**

4. **Do you think (chronic diseases) patients could be equal partners with you when making decisions on medication treatment? Is it hard for you to engage them as equal partners in a consultation? Why?**
   (Probe 4: Give examples of obstacles such as patient's characteristics: health condition or educational background or organisational factors: patient load or time constraint etc.)

5. **Have you provided any information to help (chronic diseases) patients manage their medications? In what ways (Type and amount) was the information typically given to them?**
   (Probe 5: If no response, ask the participants "Have you provided information such as available treatment options, the benefits and risks of each and potential effects on the patient's psychological and social well-being to the patient?")

6. **Have you received any feedback from (chronic diseases) patients on how they manage their medications? In what ways (type and amount) did patients let you know their feedback?**
   (Probe 6: If no response, elaborate further: "Have you received any feedback regarding patient's values, preferences, lifestyle, beliefs and knowledge about his/her illness and its treatment from patients?")

7. **Is it hard for you to exchange views with (chronic diseases) patients? Why?**

8. **How has your organisation tried to deal with these barriers affecting patient engagement and information exchange? What else could be done?**

Introduction 2: Organisational culture is the basic assumptions shared between members within organisations. Some countries, such as the UK think that making a new policy such as Shared Decision-Making into physicians' shared basic assumption could foster their practice of this consultation style. It is still inconclusive with evidence lacking in this area.

9. **How do you describe the ethos/mission/value of this organisation? How does it influence your consultation practice?**

10. **Do you think your organisation expect you to use this new approach or (other approaches) in deciding medication treatment with (chronic diseases) patients (See supplementary information 1)? Why?**
    (Probe 10: If no response, ask "How do you describe the ethos/mission/value of your organisation? (E.g. safety, efficiency, patient-centeredness, profit-making etc.)
11. **Do you think physicians are ready to use this "Shared decision making" model to discuss and reach medication decision with (chronic diseases) patients? And why?**

12. **Are there any guidelines or other support for physicians when discussing medication decisions with (chronic diseases) patients? If so, what are they?**

Appendix 15 Invitation letter (Senior Manager version)

香港中文大學 The Chinese University of Hong Kong Lancaster University

December 19, 2016

Dear Senior Executives in healthcare organisation,

Seeking your expert opinion in a Key Informant Interview

I would like to invite you to share your expert opinion in a face-to-face interview (will be conducted after April 2017) exploring the "Organisational culture and its influence on physicians' consultation style in Hong Kong". **This study will focus on senior clinical managers' perspective to see if anything could be done at the organizational level to make consultation a more pleasant and effective experience for both doctors and patients.** This research is approved by the Lancaster University in the United Kingdom and the Chinese University of Hong Kong. Please kindly telephone Miss Joyce Chan (Tel: 22528703/ 63866954) or return the REPLY SLIP form to join the study.

For enquiries or participation, please do not hesitate to call the research manager, Miss Joyce Chan at (Tel: 22528703/ 63866954) or hychan@cuhk.edu.hk for more details.

The following documents are attached to this welcome pack:

1. Information sheet
2. Sample consent form
3. Sample discussion topics
4. Expression of interest form

Yours sincerely,

Professor Fung Hong, JP
Professor of Practice in Health Services Management

JC School of Public Health and Primary Care
Faculty of Medicine
The Chinese University of Hong Kong

香港中文大學 The Chinese University of Hong Kong Lancaster University

Participant Information Sheet (Senior Manager Version)

Study Title: Organisational culture and its influence on physicians' consultation style in Hong Kong

My name is Joyce Chan, and our research team is conducting this research on behalf of the Jockey Club School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong. The qualitative study will be submitted for a PhD in Public Health programme at Lancaster University in the United Kingdom.

What is the study about?

In some countries, physicians are being encouraged to adopt a consultation style in which patients play an active role in making decisions about their medication. In medical consultations which adopt this model of 'Shared Decision-Making' decisions about medication are mutually agreed by both the physician and patient. This is a new approach which seeks to empower patients, but evidence suggests not all patients and physicians have welcomed it; some favour a more traditional consultation style where patients simply follow physicians' advice.

Therefore, this qualitative study aims to explore physicians' perception of culture for decision-making and whether it influences their consultation style when discussing medications. We would also like to hear your suggestions on the readiness of physicians' to practice Shared-Decision Making during consultations and whether there are any organisational barriers preventing them from doing so.

Why have I been approached?

You have been approached because the study requires information from people who are senior managers working under the Hong Kong Hospital Authority (public sector) or General Practice under one of the main private medical groups (UMP Healthcare Holdings Limited, Town Health International Medical Group Limited, Human Health or Quality HealthCare Medical Services Limited) in Hong Kong; and have a minimum of one year of full-time senior management experience.

Do I have to take part?

No. It is completely up to you to decide whether or not you take part. Your participation in this study is voluntary. You may choose not to participate or may withdraw your consent to participate at any time up to two weeks after the interview. You will not be penalized in any way when you decide not to participate or to withdraw from this study, and it will not affect your rights in future employment within public or private healthcare organisations in Hong Kong.

What will I be asked to do if I take part?

If you decide you would like to take part, you would be asked to express your views and opinions in an individual in-depth interview (takes up to 1 hour to complete).

The interview will take place at one of the following sites: the Jockey Club School of Public Health and Primary Care; your working institution; a meeting or conference room which cannot be overheard; by telephone or Video-conferencing system such as WebEx or Skype.

*Participants using Skype should be aware that the internet cannot be guaranteed to be a completely secure means of communication.

Will my data be Identifiable?

The personal data you provide is confidential. The study will adopt the Hong Kong Personal Data Privacy Ordinance (Cap.486) and Hospital Authority data protection policy to "protect the confidentiality and anonymity of a person in relation to personal data" throughout the research process.

The individual interview will be audiotaped to enable analysis, but your identity will keep strictly confidential in recordings and interview notes, represented by a study reference number (E.g. SDM001)

The data collected for this study will be stored securely by the researchers and only the researchers conducting this study will have access to this data:

- The original files on digital recorders will be deleted immediately after the file transfer is secured. Audio recordings will be destroyed and deleted by the researcher once the project has been submitted for publication.
- Hard copies of the study notes will be kept in a locked cabinet.
- Upon interview completion, the notes and recordings will be transferred and stored within 48 hours to a computer by the researcher. The files on the computer will be encrypted (that is no-one other than the researcher will be able to access them) and the computer itself password protected.
- At the end of the study, hard copies of raw materials will be kept securely in a locked cabinet for one year. At the end of this period, they will be destroyed by the researcher.
- The typed version of your interview will be made anonymous by removing any identifying information, including your name. Anonymised direct quotations from your interview may be used in the reports or publications from the study, so your name will not be attached to them.
- All your personal data will be confidential and will be kept separately from your interview responses.
- A person external to the research team will be transcribing the audio-interview data for data analysis. A confidentiality agreement will be signed by the transcriber.

There are some limits to confidentiality:

- If what is said in the interview makes me think that you, or someone else, are at significant risk of harm, I will have to break confidentiality and speak to a member of staff about this. If possible, I will tell you if I have to do this.

What will happen to the results?

The anonymised results will be summarised and reported in a thesis and may be submitted for publication in an academic or professional journal or at an academic conference.

Are there any risks?

This study will bear the minimal risk of harm to participants and researchers. If you experience any distress from the interview, you are free to withdraw from the interview anytime. The counselling support 24 hours hotline and service information provided by the government of the Hong Kong Special Administrative Region is included in the Participant Information Sheet.

Are there any benefits to taking part?

Although you may find participating interesting, there are no direct benefits in taking part in the interview.

Who has reviewed the project?

This study has been reviewed and approved by the "Faculty of Health and Medicine Research Ethics Committee of Lancaster University" and the "Survey and Behavioural Research Ethics Committee of the Chinese University of Hong Kong".

Where can I obtain further information about the study if I need it?

If you have any questions about the study, please contact the research team for further details:
Miss Joyce Chan Tel: (+852) 2252 8703
Principle Investigator of the research study, Email: hychan@cuhk.edu.hk

Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Professor Martin Wong, Tel: (+852) 3943 6897
Head of Survey and Behavioural Research Ethics Committee of the Chinese University of Hong Kong, Email: ssinfo@cuhk.edu.hk

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Professor Bruce Hollingsworth, Tel: +44 (0)1524 594154
Head of Division of Health Research Title; Email: b.hollingsworth@lancaster.ac.uk
Division of Health Research
Lancaster University
Lancaster LA1 4YG

If you wish to speak to someone outside of the PhD of Public Health Doctorate Programme, you may also contact:

Professor Roger Pickup Tel: +44 (0)1524 593746
Associate Dean for Research Email: r.pickup@lancaster.ac.uk
Faculty of Health and Medicine
(Division of Biomedical and Life Sciences)
Lancaster University
Lancaster
LA1 4YG

Resources in the event of distress

Should you feel distressed either as a result of taking part or in the future, the following resources may be of assistance.

24 hours Mental Health information hotline (The Mental Health Association of Hong Kong):
Tel: (+852) 2772 0047 Website: http://www.mhahk.org.hk/chi/sub2_1_service_1_4.htm

Other Adult Counselling services Hotline and community resources:
Website: http://www.edb.gov.hk/en/student-parents/crisis-management/helpline-community-resources/index.html

Thank you for taking the time to read this information sheet.

Appendix 17 Expression of interest form (Senior Manager Version)

香港中文大學 The Chinese University of Hong Kong Lancaster University

Study Title: Organisational culture and its influence on physicians' consultation style in Hong Kong

After reading the participation information sheet, please put a tick in the appropriate box to express your interest in the study.

☐ **YES**

I would like **to participate and share my opinions** in an individual interview

☐ **NO**

I am not interested in the study and **do not wish to** be contacted further.

Please contact me on the details below:

NAME: _____**SIGNATURE:**_____

PHONE: _____**EMAIL:** _____

Please return the form to indicate your interest in this study by one of the following methods (**a prepaid returned envelope is attached**) or:

1. By telephone: Contact Miss Joyce Chan, the Co-Principle investigator at **Tel: (+852) 2252 8703** during office hours (Mondays to Fridays: 9 am to 530pm)
2. By Fax: (+852) 2145 7489
3. By Email: **hychan@cuhk.edu.hk;**
4. By Post: Rm 509, The Jockey Club School of Public Health and Primary Care, Prince of Wales Hospital, Shatin, N.T., Hong Kong;

If you have any questions about the study, please contact the Principle investigator at:

Miss Joyce Chan, Tel: (+852) 2252 8703, Email: hychan@cuhk.edu.hk

Appendix 18 Consent Form (Senior Manager Version)

香港中文大學 The Chinese University of Hong Kong Lancaster University

Study Title: Organisational culture and its influence on physicians' consultation style in Hong Kong

We are asking if you would like to take part in a research project. The purpose of this study is to explore the perception of decision-making culture within the healthcare organisation and how it influences physicians' consultation style during medication consultations.

Before you consent to participate in the study, we ask that you read the participant information sheet and mark each box below with your initials if you agree. If you have any questions or queries before signing the consent form, please speak to the Principle investigator, Joyce Chan.

Please initial each statement

12. I confirm that I have read the information sheet and fully understand what is expected of me within this study	
13. I confirm that I have had the opportunity to ask any questions and to have them answered.	
14. I understand that my interview will be audio recorded and then made into an anonymised written transcript.	
15. I understand that audio recordings will be kept until the research project has been submitted for examination.	
16. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason up to two weeks after the interview without my career opportunities or legal rights being affected.	
17. I understand that once my data have been anonymised and incorporated into themes, it might not be possible for it to be withdrawn, though every attempt will be made to extract my data, up to two weeks after the interview.	
18. I understand that the information from my interview will be pooled with other participants' responses, anonymised and may be published	
19. I consent to information and quotations from the interview being used in reports, conferences and training events.	
20. I understand that any information I give will remain strictly confidential and anonymous unless it is thought that there is a risk of harm to myself or others, in which case the principal investigator will need to share this information with her research supervisor.	
21. I consent to Lancaster University keeping written transcriptions of the interview for 1 year after the study has been published.	
22. I consent to take part in the above study.	

Name of Participant_____ **Signature**_____**Date**_____

Name of Researcher_____ **Signature**_____**Date**_____

Appendix 19 Discussion guide (Senior Manager Version)

香港中文大學 The Chinese University of Hong Kong Lancaster University

Study Title: Organisational culture and its influence on physicians' consultation style in Hong Kong

Practice Information

Total duration of the interview: _____mins

	Over the past 12 months of practice:			
1	**Nature of Practice:**	Public	Private	Others:
2	**How many physicians are there in the premises?**	_____ Physicians		
3	**Location of practice: New Territories/ Kowloon/ HK island**	NT	Kowloon	HK island

Professional background

4	**Your Gender is:**	
5	**Your Age is:**	
6	**Your discipline is:**	
7	**Years of experience in healthcare administration/ management:**	
8	**Have you completed any business, healthcare administration or management training? If yes, what is it? _____**	
9	**Have you attended any workshop or training regarding "Shared Decision Making? If yes, How many times?**	
10	**Have you organised any workshop or training regarding "Shared Decision Making? If yes, How many times?**	
11	**Which organisation provided the Shared-Decision Making training for you? (HKMA/HKCFP)**	

Part 2 Discussion guide (Senior Manager Version)

Opening question: There is a movement towards mutual decision making between patients and physicians worldwide; what do you think about it? Are your physicians practising this or other approaches (Show the table supplementary information 1)?

(Probe_opening: If no response, ask "How do you describe the ethos/mission/value of your organisation? (E.g. safety, efficiency, patient-centeredness, profit-making etc.)

Introduction 2: Organisational culture is the basic assumptions shared between members within organisations. Some countries, such as the UK think that making a new policy such as Shared Decision-Making into physicians' shared basic assumption could foster their practice of this consultation style. It is still inconclusive with evidence lacking in this area.

1. **How do you describe the ethos/mission/value of your organisation? How do you think the ethos/mission/value influence the consultation practices of the physicians in your organisation?**

2. **The Hospital Authority pushed forward "patient engagement" in the "Strategic Service Framework for Elderly Patient (2012)". What do you think "Patient engagement" is? Is it important during the consultation? To what extent does your organisation expect patients to participate?**

3. **The obstacles for "patient engagement" from the physicians' perspective is summarised in the supplementary information sheet 2 – how has your organisation try to deal with these barriers?**

4. **Do you think "information/opinion exchange" is important during the consultation? To what extent does the organisation expect physicians to exchange information (show the table in supplementary information 1 for the flow, type and amount of views) with (chronic diseases) patients to make decisions on medication treatment?**

   (Probe 4: If no response, ask the participants "Have you provided information such as available treatment options, the benefits and risks of each and potential effects on the patient's psychological and social well-being for the patient?")

5. **The obstacles for "opinion exchange" from the physicians' perspective is summarised in the supplementary information sheet 3 – how has the organisation try to deal with these barriers?**

6. **Do you think your organisation expect physicians to use this new approach or (other approaches) in deciding medication treatment with patients (show the table in supplementary information 1)? Why?**

7. **Do you think physicians are ready to use a more mutual style to discuss and reach medication decision with patients? And why?**

8. **Are there any guidelines for physicians to follow when discussing medication decisions with (chronic diseases) patients? If so, what are they?**

Appendix 20 Supplementary Information 1- Consultation models

Stages		Decision-making consultation models				
		1. Paternalistic (P)	**Between P/S**	**2. Shared (S)**	**Between S/I**	**3. Informed (I)**
Stage1: Information exchange	**Flow / Direction**	One way (largely) Physician→patient		Two way Physician ↔patient		One way (largely) Physician ↔patient
	Type	Medical (e.g. administer method, side effect)		Medical and personal (E.g. patient's attitude/ preference/ value/ attitude to medication/ illness)		Medical
	Amount Case Scenario: "Metformin" as drug regimen for diabetes patient	Minimum legally required: Diagnosis/ Prognosis, drug administer method and frequency		All relevant for decision-making: Diagnosis/ Prognosis, drug administer method and frequency, possible risk and benefit, the social and psychological effect of Metformin and other alternative options		All relevant for decision-making: Diagnosis/ Prognosis, drug administer method and frequency, possible risk and benefit, the social and psychological effect of Metformin and other alternative options
Stage 2: Who consider options		**Physician**		**Physician+ patient**		**Patient**
Stage 3: Who makes the decision?		**Physician**		**Physician + patient**		**Patient**

Appendix 20 continued- Decision-making consultation models: simple definition

1. **The paternalistic model**
   In the paternalistic consultation model, physicians have a dominant role in providing information and deciding the best treatment for patient during the consultation. Patients' input is limited to providing symptomatic information which is not critical to making the final decision

2. **The informed model**
   Patients are responsible and have the autonomy to make medication decisions while the physician provides comprehensive information such as treatment effect, risk and benefit on all possible treatment choices

3. **The shared decision-making model**
   Physicians and patients play an active and equal role and participate in the decision-making process; information exchange (physicians uses clinical expertise to provide treatment-related information while patients share their illness experience, preferences, values and knowledge); both of them consider advantages and disadvantages of different options and agree on a single decision

Intermediate Models: A combination between Paternalistic/ Shared decision making / informed model
Other models: consultation approaches other than those listed above

Appendix 21 P003 Transcript with codes

A 29-year old, HK trained, female Chinese GP working in a public general outpatient clinic in Hong Kong for 4 years (translated version)

Short Description:

- Medical training background: P003 was trained as a GP and finished basic training as a family medicine (FM) specialist in Hong Kong. Now undergoing higher training in FM.
- Communication training: No additional training on SDM/ other consultation models.
- Researcher's observation and feelings about the interview: She is friendly and willing to open up and let someone hear about the real world of a GP during the one-on-one interview which was held in a private conference room near her clinic.
- Off the record sharing: P3 shared her biggest fear that it is quite common for patients to express another source of discomfort right at the end of the consultation such as muscle pain, flu or dryness in the eye, hoping to get extra examination (X-ray) or preventive medication. This may be due to the long waiting time in the public system, or patients wanting to get the most out of the GP.

已註解 [JHC(1]: Perception of patients' demand

Interview date: Nov 3, 2016 **Audio duration**: 48:21 mins

JC: There is a movement towards mutual decision making between patients and physicians worldwide, what do you think about it?

P: Actually, there is a generous amount because, because... I've been taught by people in my organisation to be patient-centred. Both the patients and the doctors have to talk and reach a common understanding before we try to decide on any treatment. It is not like the doctors from the past generations, who were high up with power and authority, who say and decide for patients. It has been changing unconsciously to a more mutual style. The patient also has more knowledge about things, and it may be due to the internet. Patients will ask you about your advice, or they will provide feedback. For example: "Some doctor from mainland China suggested that I need to take aspirin to prevent stroke" but aspirin may not be the recommended approach according to disease management guidelines in Hong Kong. Sometimes I've discussed their blood pressure with them and that they needed to change or add a dosage of medication. Patients have their own thoughts sometimes, it's not like I say something and they just follow it.

已註解 [JHC(2]: Patient-centred styles as a taught tradition among younger physicians

已註解 [JHC(3]: perception of SDM

已註解 [JHC(4]: Perceived readiness: Younger physicians felt more ready to use SDM

已註解 [CHYJ5]: Sources of info shaped patients' knowledge Patients are more engaging and want to discuss options

已註解 [JHC(6]: Conflicts between doctors' prescribing guidelines

JC: Do these patients actively raise medication-related questions with you?

P: Yes, it is quite common.

已註解 [CHYJ7]: Patients are more engaging and want to discuss options

Appendix 21-Continued

JC: What do they ask you?

P: Yea… they've enquired about medication-related information received from private doctors or other channels…advertisements, any places that may mention medication. They may ask: "Ar… will this drug be better for me, or the other one?" The most common questions are "are there any side effects related to this medication, any risks or negative effects?" Actually it can take quite a bit of time to answer their questions.

已註解 [CHYJ8]: Sources/type of information shared by patients

JC: Where did you learn about how to discuss and reach a medication decision with patients?

P:... The medical school taught something like SDM, that is to say…it's not like the old times when doctors had all the say. And then we learn more about other skills when we started family medicine training or practising in clinics.

已註解 [JHC(9]: Changing trend to SDM in medical training

JC: Train as you go?

P: Yea…it is hard to say theoretically which consultation model is better, which pattern is better. Sometimes you have different people, and you have to improvise (laugh).

已註解 [JHC(10]: Changing consultation style according to patient

JC: Can you tell me about your training such as medical school? You say SDM ….I know you went through some hospital-based clinic training, so do you think the organisation has had some influence on you?

P: In fact, that is, when you were a junior, you learned from others. I think different seniors have different ways of doing things and we do not necessarily have to follow them. For example, some doctors are gentler and others are more authoritative. As for myself, I might be able to respond in accordance with my own personality. Perhaps I'm not the strict or authoritative type. I think I tend to go for the gentle side…being nice. Oh, sometimes it is not always possible to explain everything nicely in time,

especially when you're in a hurry. There may be another time when you think there is a need to have more authority to take back the lead of the consultation.

已註解 [JHC(11]: Changing consultation style according to GP
Changing consultation style according to time constraint

已註解 [JHC(12]: Changing consultation style according to patient

JC: You just mentioned that GP seniors have various consultation styles. How do they teach you?

P: Observation. There are sections where seniors would observe us and comment on our medical explanations or communication skills during consultations. Sometimes, the seniors would demonstrate to us. There may be different approaches among senior doctors for the same patient, or sometimes the way they persuade patients may not be the same either.

已註解 [JHC(13]: Learning culture

已註解 [JHC(14]: Differences in consultation approaches are tolerated in the organisation

JC: You talked about doctors with different styles. Do you mean there is a different mix? What do you think about that?

P: Yes, there isn't any one best model I think. It's just the model most acceptable to you or that fits best with your own character.

已註解 [JHC(15]: Best approach is the one that is fitted to the GP' character

JC: Okay. Shall we move on to the next question? The Hospital Authority pushed forward "patient engagement" in the "Strategic Service Framework for Elderly Patients (2012)". What do you think "Patient engagement" is? Is it important for making decisions on medication treatment during consultations?

P: I think it's something like education. Besides what the doctors tell them, patients may have some kind of ideas about their current situation. Perhaps their idea would make a lot of difference. It's about how aware patients are about their problems. Or they may feel …I'm okay, then your management approach would be very different.

已註解 [JHC(16]: Perception about patient engagement
Changing consultation according to patients' awareness

JC: Do you mean their perspective?

P: Yes. It is what we always say if the patient has insight - insight to know what's happening to him/her.

Appendix 21-Continued

JC: Is it like an awareness?

P: Yes.

已註解 [JHC(17]: Patients' awareness

JC: You talked about when patients have awareness. How would you adjust your management approach with these patients?

P: At least the patient is aware, which means he/she will be more willing to accept opinions. Because there are some patients who are more of the denial types, making up all kind of excuses…saying they are busy or whatever. Some even cannot accept the fact that they are not controlling their medical condition well. Those who are aware are more willing to listen and, hence, will be easier to manage.

已註解 [JHC(18]: Denial patients

已註解 [JHC(19]: Aware patients understands and accept more

JC: Let's say for those patients who have a higher awareness, which approach will you use with them in the consultation?

P: I think SDM, as the communication gateway has already been opened, patients may find it easier to accept what I say. Then I don't mind involving the patient a bit more if both of us feel like we could talk and be understood.

已註解 [JHC(20]: Changing consultation style according to patients (awareness)

JC: How about the denial patients ?

P: I think denial patients want the informed style but due to time limits, and I'm rather impatient, I would go for the paternalistic style. But when a paternalistic style is not working, I give up and do informed style, give them what they want.

已註解 [JHC(21]: Note: Special Choice of word

已註解 [JHC(22]: Changing consultation style based on GP's character

P: With some of the denial cases, it's like having an argument. We are on opposing sides as soon as the patient steps into the consultation room. It influences the consultation approach as we are on opposing sides with different interests. This can be a vicious cycle. For example, some patients may not listen to you as they have concerns like: I would rather let the liver index be a bit higher than taking the risk to take medication. The patients don't understand that the risk of the medication is quite low, even if they don't take it, their cholesterol from the pancreas could affect the liver, but of course, we cannot expect them to know as much as we do.

已註解 [JHC(23]: The way GP dealt with denial patients Perception of medication among patients

JC: Do you think patients could act as equal partners when making decisions on medical treatment?

P: I think it's not totally equal, which means you can participate but you can't dominate. Because I feel that we are not in a service industry, which means we have to maintain our professionalism, which means that it is not the approach where customers are always right. You can participate, but you have to listen to what the doctors have to say. In fact, the final decisions usually are in the patients' hands. We cannot force them. But if they are willing to accept more, the outcome might be different.

已註解 [CHYJ24]: Perceive patients' ability to be equal partners
Perceived professional role as a doctor
Patients as final decision maker

JC: Is it hard for you to engage patients as equal partners in consultation? Why?

P: The difficult part is time constraints. Time is the only thing we lack most. There are quotas in my organisation. We are aware that we have to reach the quota in every AM/PM session. Compared to other clinics, we are allocated fewer resources, and the demand is quite high. Therefore, every day all of us are using 100% to reach the target of service.

J: How many patients do you have to see in each session?

P: We have to see about 36-37 cases every morning/afternoon (in 4 hours). In some ways, the clinic would only be allocated more resources if they think it's impossible for you to meet more demand. If you have increased manpower, it doesn't mean that my demand will be lowered. For example, if there are extra doctors in my clinic, let's say we have 5 doctors. If they add in a 6th doctor, he/she will not share the workload of the 5 existing doctors. The 6th doctor will be there because they decide to take more patients.

已註解 [CHYJ25]: Time constraint does not support SDM
Time pressure push GPs to the limit

已註解 [JHC(26]: Demand driven resource allocation does not support SDM

JC: Do you have any help from the allied health professionals?

P: In our setting, when you close the consultation door, you are pretty much alone. Therefore I have to handle everything and then the patients may get some help from other allied health staff when they step outside of the consultation room.

已註解 [CHYJ27]: Organisational support (for patients) on medication management

Appendix 21-Continued

JC: The next part is about the organisational culture. How would you describe the ethos/mission/value of this organisation? How does it influence your practices?

P: I think the mission, is to provide clinical service for the most needy grassroots population, which are most of the public citizens.

已註解 [JHC(28]: Perception for organizational culture

JC: Universal care?

P: Yes, but there is a lack of resources. They only allocate a small budget to achieve a very good service. What we say is that the department has the budget for a cafe but they expect hotel services from us. To be honest, our staff really put their heart into it and try their best to give a better service. But at least it has to be safe and does no harm to the patients. This is the least and the bottom line in the face of a lack of resources. However, patients or the public nowadays, they are not satisfied with doctors simply treating them. They just want more.

已註解 [JHC(29]: Organisational expectation on services

已註解 [JHC(30]: GP's feelings towards organisaitonal expectation

已註解 [JHC(31]: Perception of public expectation

JC: Let's talk about expectations. Which approach do you think your organisation expects you to use in discussing and deciding medication treatment with patients?

P: 2 (SDM)

JC: How about the patients?

P: Patients should want SDM. I think SDM is the ideal scenario for everyone.

JC: How does the mission you mentioned earlier influenced your consultation practices?

P: We all want to do better. I believe those who have a heart want to improve services. However, we …On the other hand, patients expect more from us as well. In reality, we don't have extra capacity to meet both expectations.

已註解 [CHYJ32]: Patients' expectation
GPs' feelings towards expectations

Appendix 21-Continued

JC: What are their expectations?

P: They expect more people to take care of them, and to be honest it is quite hard. They are thinking 'why is the waiting time is so long and the subsequent consultation is so short?'. But in fact we haven't even rested a bit. No member of staff can meet their expectations. And the demand just keeps increasing. What I mean is that patients are more demanding now.

已註解 [JHC(33]: GPs' feelings towards patients demand
Underfunded HA long waiting time for patients

JC: You mean attitude?

P: Yeah. It is kind of 'take it for granted'. But in fact, Hong Kong is already better than other places. I am not talking about if there are enough resources or not. What I am saying is the quality of service given limited resources. Ar…

已註解 [JHC(34]: Note: Special choice of word
GPs' feelings towards patients

已註解 [CHYJ35]: GPs' feelings towards services

JC: Our health system was Bloomberg No. 1. It was the most efficient health system in the world in 2015.

P: That's because Hong Kong is already quite fast, and then in our industry, if you have 10 mins to have lunch, and don't starve to death, you are already considered lucky.

已註解 [JHC(36]: Time pressure prevents self-care

JC: 10 mins?

P: …In my previous training in another clinic, this clinic setting is already a little bit better, but it is still happening to other doctors. Because when you are too busy, you can only sacrifice your rest and leisure time.

已註解 [JHC(37]: Time pressure prevents self-care

JC: I heard you don't have toilet breaks.

P: … Yeah… Sometimes…when you really need the toilet…(sigh)…When you are too busy, it is not an uncommon practice that you do not dare to drink water because

Appendix 20-Continued

then you'll need to go to the toilet. But of course it depends on your character. Some just don't care, and say if I need I will go first. But most of the time I will go after I finish my duties.

JC: Your biological needs are just about met.

P: I can only talk about the clinic I am working in…is already not the worst.

已註解 [JHC(38]: GPs' expressed feelings towards services

JC: Do you think other physicians are ready to use this, "shared decision making" model to discuss and reach medication decision with patients? And why?

P: I think regarding attitude, the younger generation are more ready as we have already been taught in a similar approach. In fact, it's very protective these days, which means the organisation wants zero incidents, as simple as medication or what we say about the more invasive procedures. If some adverse events happened due to a known risk, we would still be blamed for doing something wrong. There is an ongoing trend like this.

已註解 [CHYJ39]: Perceived readiness to use SDM
SDM as a taught tradition among younger physicians

JC: Blame culture ?

P: Blame…more of it these days….

JC: Which means your liability is higher ?

已註解 [JHC(40]: Organisational expectation on safety
Blame culture

P: Yes. Because as I told you (the patients), signed documents, or you understood, then I did these procedures and I wrote it down clearly to protect everyone. At the end nobody can be blamed, so I use more of the SDM model these days compared to the past.

已註解 [CHYJ41]: Use of SDM to reduce patients' complaint/
being blamed for undesirable treatment

JC: Last question. Are there any guidelines or resources for GPs to discuss medication decisions with patients within your organisation?

Appendix 20-Continued

P: I think so… For example, some supporting staff could provide extra information for you (the patient) outside of the consultation room if I issue a pass saying "my colleague will tell you more about the medication".

已註解 [JHC(42]: Organisational support to aid medication decisions

JC: To talk about how to use the medication?

P: Yes, we will suggest that you (the patient) collect the medication from the pharmacy first and take them to see a nurse, who can provide a more clear and detailed explanation. I think this is a more recent service. Other than that, our computer system has some photos of the medications, because sometimes when you ask them (the patients), did you take a certain drug, they can't recognize it as all the drugs look pretty similar. Sometimes they say... the red one but there are so many red ones, so maybe if we have a photo of the drug, things would be easier….but sadly…

已註解 [CHYJ43]: Organisational support for patients in medication management

已註解 [CHYJ44]: Organisational support for GPs to aid medication discussion

JC: In the CMS?

P: In the CMS or some website of ours. But sadly they change very fast…the packaging of the drug.

JC: It's not too up to date?

P: It's hard to keep it up to date.

JC: Would you share the screen with patients?

P: Yes.

JC: Are these photos of drugs in the computer system meant to be shared with patients in the first place ?

Appendix 21-Continued

P: Maybe it is more for us to understand which medication patients were talking about. Sometimes we don't know what all the drugs look like. Perhaps we are more familiar with the ones patients always take, and this is especially true for the new colleagues. But there is no point for just us to know. The patients have to see it and tell us if that was the one they were taking.

已註解 [JHC(45]: Organizational support (for GP) to aid medication decisions

JC: Is the page (with the photo of the drugs) embedded within the CMS (Clinical Management System)?

P: The page is a bit different in different places. Some may embed photos in their own department website as an internal resource. I'm not sure if this is a centralised process.

JC: You mean in the hospital cluster?

P: Cluster or different clinical specialities. It can be very different among various clinical specialties.

已註解 [CHYJ46]: Organisational support (for GP) to aid medication decisions

JC: Let me see. Is it available on the patient website?

P: I don't think so. It's for staff only.

JC: Thank you very much for your help. I will stop the recording now.

Appendix 22 Final Ethics Approval by the Chinese University of Hong Kong Survey and Behavioural Research Committee

THE CHINESE UNIVERSITY OF HONG KONG

M E M O

To : Miss CHAN, Hau Ying Joyce
The Jockey Club School of Public Health and Primary Care

From : Secretary
Survey and Behavioural Research Ethics Committee (SBREC)

Tel. : 3943 4209

Date : 9 January 2017

Survey and Behavioural Research Ethics

I write to inform you that the Survey and Behavioural Research Ethics Committee has granted approval in principle for you to conduct the surveys or observation of human behaviour by non-clinical means as declared in the application for the following research:

Project Title : Organisational culture and its influence on physicians' consultation style in Hong Kong

Source of Funding : Nil

Reference, if any : Nil

Kindly be reminded that you should also obtain approval from other research ethics committees within the University (e.g., Clinical Research Ethics Committee, Animal Research Ethics Committee) if any parts of your research do not fall under the scope of our Committee. Thank you for your attention.

This memo supersedes the previous one issued on 19 September 2016.

Alice Hung

c.c. Panel Secretary concerned

Appendix 23 Final Ethics Approval by Lancaster University August 14, 2017

Lancaster University

Applicant: Joyce Hau Ying Chan
Supervisor: Paula Holland
Department: Health Research
FHMREC Reference: FHMREC16145

14 August 2017

Dear Joyce

Re: Organisational culture and its influence on physicians' consultation style in Hong Kong

Thank you for submitting your research ethics amendment application for the above project for review by the **Faculty of Health and Medicine Research Ethics Committee (FHMREC)**. The application was recommended for approval by FHMREC, and on behalf of the Chair of the Committee, I can confirm that approval has been granted for the amendment to this research project.

As principal investigator your responsibilities include:

- ensuring that (where applicable) all the necessary legal and regulatory requirements in order to conduct the research are met, and the necessary licenses and approvals have been obtained;
- reporting any ethics-related issues that occur during the course of the research or arising from the research to the Research Ethics Officer at the email address below (e.g. unforeseen ethical issues, complaints about the conduct of the research, adverse reactions such as extreme distress);
- submitting details of proposed substantive amendments to the protocol to the Research Ethics Officer for approval.

Please contact me if you have any queries or require further information.

Tel:- 01542 592838
Email:- fhmresearchsupport@lancaster.ac.uk

Yours sincerely,

Dr Diane Hopkins
Research Integrity and Governance Officer, Secretary to FHMREC.

Appendix 24 A set of instructions to the transcribers

Symbol	Meaning
"Ar:::" or "Arrrr"	An extended sound is shown by: Repeated instances of: means more extended speech
Hate	Underlining indicates stress (in attitude only, not significant increases in the volume of speech)
"Umbre-"	Hyphen – indicates a word/sound is broken off/ not voiced out loud
".hhhh"	A sigh or deep breath (that is audible)
HATE	Increase in volume of speech is shown by CAPITAL LETTERS
(umbrella…)	Words that you are not sure if it is correct, (bracket…) is your best guess
((inaudible))	((inaudible)) means that you cannot hear and transcribe the words
…	… means a short pause (less than or equal to 5 seconds)
(Pause) **(Pause xx sec)**	Longer pause 5 seconds, if >5 sec → (Pause 7 sec)
#abc#	Talk at the same time between 2 people, E.g. A said agree and B said agree at the same time, #Agree#
With commentary e.g. (laugh)	Some emphasis, expression or movement e.g. (laugh), (angrily), (sigh), (giggle), (hit the table), (eating), (drinking), (telephone rings), (with confident), (with sadness), (clearing throat), (coughing), (happily), (with a negative attitude)
(Anonymised name)	(**Anonymised name)** to protect the confidentiality and anonymity of the participant

(Adapted from Drew 1995 with the researcher's understanding)

Appendix 25 Step 2- a list of 85 initial codes

21 Apriori codes -Theory-driven from an interview guide and theoretical model	
1.	How the consultation process go about
2.	GPs' perceived patient-centredness of their consultation style
3.	GPs' provided types/amount of info, how it was given to the patient
4.	GPs' readiness to do SDM
5.	GP's recommendation to improve communication skills/medical training
6.	GP's recommendations to improve clinical processes
7.	GP's recommendations to improve resource allocation policies/reduce demand-supply imbalance
8.	Organisational expectations of GPs' service
9.	Organisational support (for GPs) to aid medication discussion
10.	Organisational support (for patients) in medication management
11.	Patient/GP as final decision-maker
12.	Patients more knowledgeable /prepared for SDM
13.	Perceived patients' ability to communicate needs/preference as equal partners
14.	Perception of organisational culture
15.	Perception of informed style
16.	Perception of paternalistic style
17.	Perception of patient engagement
18.	Perception of SDM
19.	Resisting/difficult/denial patients
20.	Sources/types of information shaped patients' knowledge
21.	Sources/types of information shared by patients
64 Emergent codes - Data/participant-driven from the transcripts	
1.	Aware patients understand, accept and adhere to advised treatment
2.	Best model is the one that is the best fit with the GP/patient
3.	Changing the consultation style according to GP
4.	Changing the consultation style according to patient
5.	Changing the consultation style according to patient load and time constraint
6.	Changing consultation styles according to the clinical context
7.	Changing the trend to more mutual style in medical training
8.	Communication skills training in HK/UK
9.	Conflicts between GPs' prescription guidelines
10.	Customer orientation of the public/private organisation
11.	Demand-supply imbalance between public & private sector prevents SDM
12.	Demand-driven allocation culture does not support SDM
13.	Differences in consultation approaches are tolerated in the organisation
14.	Different copayment/ remuneration policies between public/private sector
15.	Different practice policies between the public/private sector
16.	Difficult patients increase the risk of medical error
17.	Difficult patients tend to trust specialists rather than GPs
18.	GP/family medicine training system in HK/worldwide
19.	GPs' degree of control in corporate decision-making
20.	GP's expressed emotion/feelings towards services/patients
21.	GP's perceived professional identity
22.	GP's perceived professional role as a doctor
23.	GP’s relationship with senior GP or the team

24.	Health literacy/knowledge gap between GP & patients prevents information exchange
25.	Heavy workload prevents allied health professionals from providing extra information
26.	How GP/FM training built/assessed GP's consultation skills
27.	How GPs found out what patients want or need
28.	How GP was appraised for their performance in services
29.	Know the patients' need/preference to determine the range and direction of information exchange
30.	Lack of clear credentialing/scope for primary care doctors
31.	Lack of clear price transparency/copayment method
32.	Learning culture in medical school/training
33.	Limited treatment information is given to avoid overwhelming patients
34.	Limited HA pharmacy options prevent full sharing of treatment options
35.	More knowledgeable patients want to discuss
36.	Older Chinese patients respect and trust GPs more
37.	Patients are more engaging and want to discuss options
38.	Patient engagement increased rapport with patients
39.	Patients expressed challenges in medication adherence
40.	Perception from GPs & hospital management on services/resource allocation policies
41.	Perceived trust and rapport with patients & influence on treatment adherence and doctor-shopping
42.	Perception of Chinese/western/herbal medications among Chinese people
43.	Perception of information exchange on medication adherence
44.	Perception of patient engagement on medication adherence
45.	Perception of patients' demand/expectations of clinical services
46.	Perception of the Public Private Partnership Schemes on public/private demand imbalance
47.	Recommendations from disease management guidelines conflicting with patients' needs
48.	SDM/patient-centred styles as a taught tradition among younger physicians
49.	The way Chinese people utilise healthcare services
50.	The way GP dealt with difficult patients
51.	The way GP dealt with the unusual/uncertain treatment request
52.	The way organisation control/manage GPs' behaviour
53.	Time constraint prevents deep sharing of SDM
54.	Time pressure in organisation life prevents self-care
55.	Time pressure pushed GP to the limit
56.	Time spent according to clinical complexity/urgency of the case
57.	Treatment options are given according to GPs' preference
58.	Treatment options are given according to patients' willingness to pay/ affordability
59.	Types of guidelines GPs are currently taking reference to
60.	Types of misconceptions from difficult patients
61.	Underfunded HA led to long waiting time in training/patient resources
62.	Use of SDM to reduce the risk of patient complaints/being blamed for undesirable treatment
63.	Work rotation policy in HA prevents patients from seeing the same GP again
64.	Younger Chinese people want more freedom/power in treatment decisions