Coronary heart disease patients' compliance with dietary recommendations: Does trust matter?

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TABLES

FIGURES

Abstract

Recent theoretical and applied International literature has suggested that trust in healthcare is declining. This thesis investigates the apparent decline by researching the role of trust in coronary heart disease (CHD) patients' compliance with dietary recommendations. This thesis also investigates the practical application of social theories of trust. At present, social theories of trust do not provide a practical framework for applied investigation. This thesis is a means of theoretical development with regard to social theories of trust. A total of 37 qualitative interviews in South Australia and 1044 quantitative surveys were collected from a national sample as a means of investigating social theories of trust. The qualitative findings indicate that people with CHD trust healthcare professionals and the healthcare system. It was also found that in situations of risk, individuals are dependent on the healthcare system and healthcare professionals; they do not reflexively 'trust'. In addition, the findings suggest that trust may play a role in compliance but that risk and reflexivity are central to understanding the concept of compliance. Quantitative results indicate that Australians have high levels of trust in organisations/individuals but that specific demographic factors can be used to predict levels of trust. Respondents who are females, have a chronic health condition, a high annual household income, living in advantaged areas are the most likely to distrust doctors, among other groups of individuals and organisations/institutions. The findings suggest that current social theories of trust do not provide a practical framework for investigating trust in social health research. Findings have led to the development of a more comprehensive model of trust that may be used for future research on trust in healthcare.

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

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Chapter 1: INTRODUCTION

This thesis investigates social theories of trust as a means of theoretical development. The social theories of trust outlined by Anthony Giddens and Niklas Luhmann are used to frame applied research on trust in healthcare as a means of theoretical investigation and development. This thesis investigates the conceptualisation, operationalisation, and theorisation of trust. Trust in healthcare has been chosen specifically as a means of theoretical investigation. This chapter provides an introduction to the chosen research and provides the rationale for the empirical design. In addition, this introduction suggests why this thesis is relevant and valuable for public health research.

There is a burgeoning wealth of literature on trust in a number of disciplines including sociology (Giddens 1994; Mollering 2001a; Mollering 2001b; Anon 2006; Ward and Coates 2006; Bjornskov 2008; Ward and Meyer 2008; Ward and Meyer 2009), public health (Lupton 1996; Rhodes and Strain 2000; Thom 2000; Thom, Kravitz et al. 2002; Gilson 2003; Wright, Holcombe et al. 2004; Gilson 2005; Gilson, Palmer et al. 2005; Tibandebage and Mackintosh 2005; Trachtenberg, Dugan et al. 2005; Gilson 2006; Whetten, Leserman et al. 2006; Taylor-Gooby 2006b; Brown 2008; Ishikawa and Yano 2008), psychology (Miles and Frewer 2002; Silvester, Patterson et al. 2007), political science (Giddens 1994; Fukuyama 1995; Alexander 1996; Hardin 2006; Janssen 2006), philosophy (Baier 1986; Baily 2002; Hills 2002; Matravers 2002; Price 2002; Wolff 2002), and social policy (Taylor-Gooby 2008; Taylor-Gooby and Wallace 2009). This abundance of interest reflects the growing awareness in both research and policy of the importance of trust for society's wellbeing. Although it may be questioned as to whether society can even reach a state of wellbeing, at both an individual and societal level, trust remains important for health as it is 'fundamental to effective interpersonal relations and community living' (Mechanic and Meyer, 2000:657). Findings from a substantial body of literature across a broad range of disciplines suggest that trust is an important component for the smooth functioning of society and thus for the development, maintenance, and sustainability of the quality of people's lives (Anon 2006; Ward 2006; Ward and Coates 2006; Meyer and Ward 2008; Meyer, Ward et al. 2008). In the past decade, trust has become a major research focus. Many academics are concerned with the decline in trust in several democratic countries (Hardin 2006). It has been

suggested that, to compound the increasing levels of distrust, 'one should expect trust to be increasingly in demand as a means of enduring the complexities of the future which technology will generate' (Luhmann 1979:16). In other words, the whole notion of trust will become increasingly important.

Of particular interest to this thesis is the wealth of literature highlighting declining levels of trust in healthcare (Mechanic 1996; Birungi 1998; Davies and Rundall 2000; Mechanic and Meyer 2000; Welsh and Pringle 2001; Gilson 2003; Goudge and Gilson 2005; Gilson 2006). This apparent decline in trust in healthcare has been linked to broader epistemological challenges about the authenticity of knowledge (Williams 2000; Williams and Popay 2001; Popay, Bennett et al. 2003), decreasing confidence in the power of science (Wynne 1992; Wynne 1996; Wynne 2001; Irwin and Michael 2003), increasing individual and societal reflexivity (Giddens 1994), and questioning of the capacity of experts to deliver patients control over their bodies (Scambler and Britten 2001; Crawford 2004).

Well-publicised medical errors and malpractice cases (Antonovsky 1990; Dugan, Trachtenberg et al. 2005) and their resulting media reflections often fuel lay perceptions of professional fallibility and diagnostic uncertainties (Thompson 2007) and contribute to declining levels of trust in healthcare (Meyer and Ward 2008). For example, public trust in the United Kingdom (UK) healthcare system has been shaken by the media attention given to medical scandals such as the conviction of Harold Shipman, general practitioner and convicted serial killer (Calnan and Sanford 2004). Media scandals such as the Harold Shipman case encourage lay people to question the validity of medical and scientific knowledge and hence, the 'trustworthiness' both of medical practitioners and the system in which their knowledge is based (Ward 2006).

1.0 Investigating trust in healthcare as a means of theoretical development

The application of social theory provides a useful conceptual framework for exploring trust (Brown 2008) and can be used as a lens through which we can analyse the role of trust in society (Gilson 2005; Meyer, Ward et al. 2008). However, it has been argued that the subject of trust theory is 'disembodied', causing serious limitations to its scope and usefulness (Beasley and Bacchi 2007). Social theories of trust have become static, not taking into account time and the influence of social

structures and societal developments on trust. The applied aspect of the research regarding trust in healthcare is undoubtedly relevant and important in our understanding of the functioning of a healthcare system. However, the design of this research is driven by theory in an effort to address the disembeddedness of current social theories. As a means of addressing the practical limitations of the trust theories of Anthony Giddens and Niklas Luhmann, this thesis investigates the nature and extent of trust with the aim of theoretical development. Theoretical criticism is used to drive the empirical investigation while, in turn, the empirical investigation is used to inform further theoretical development.

The empirical aspect of this thesis deals specifically with trust both in the healthcare system and healthcare providers. This area of inquiry was chosen for two reasons. First, trust has been recognised as a fundamental component of the doctor–patient relationship in empirical literature (Mechanic and Meyer 2000). In addition, theoretical understandings of trust have been identified as being central to doctor–patient relationships because of the risk inherent in medical decisions (Armstrong, Ravenell et al. 2007). Social theory suggests that risk is a component of trust; trust cannot exist in situations with no risk (Luhmann 1979; Luhmann 1988; Giddens 1994; Luhmann 2005). This argument is also evident in applied research. Gilson (2003:1454) argues that 'to trust someone else is a voluntary action based on expectations of how others will behave in relation to yourself in the future.' Similarly, Taylor-Gooby (2006c:131) argued that 'trust is based on judgements about whether the trusted person or institution is likely to act in the future in the appropriate way, and action is driven by interests.' However, unfulfilled trust generates negative outcomes and therefore, trust involves an element of risk. The doctor–patient relationship takes place in a context of uncertainty which provides a niche for investigating and understanding the relationship between trust and risk. For example, Brownlie and Howson (2005) have investigated trust through an empirical study of parental and professional talk about the MMR (measles–mumps–rubella) vaccination. In this case, the level of uncertainty that takes place in trusting the technology of vaccination provides a vehicle for investigating the concept of trust.

In addition, researching trust in healthcare is beneficial for investigating the operationalisation of trust. Empirical trust literature suggests that trust is a multidimensional phenomenon which is consistent with the relevant theoretical perspectives (Mechanic 1998b; Thiede 2005; Brown 2008; Meyer, Ward et al. 2008). Social theorists have conceptualised both interpersonal and

institutional/systems-based trust. Within healthcare, trust also needs to be considered on two levels: trust towards the healthcare system (institutional or systems-based trust) and trust towards the healthcare provider (interpersonal trust) (Thiede 2005). Researching trust in healthcare provides an excellent forum for investigating trust on both theoretical levels. Trust in healthcare professionals provides a means for investigating interpersonal trust. Trust in the healthcare institution/system provides a means for investigating institutional/systems-based trust.

1.1 Investigating coronary heart disease (CHD) patients' trust as a means of theoretical investigation

As noted above, researching trust in healthcare is beneficial for theoretical investigation because of the risk inherent in medical decisions. It is for this reason that patients with coronary heart disease (CHD) were specifically chosen for this research. CHD is a chronic condition that affects one in two Australian men and one in three Australian women over the age of 40 (National Heart Foundation of Australia 2008) and has been cited as a major cause of morbidity in democratic countries (Davison, Frankel et al. 1992; Cardi, Munk et al. 2009; Yngve 2009). CHD is a major cause of disability and is the most common cause of death in Australia (National Heart Foundation of Australia 2008). While CHD cannot be cured, the risk of developing it can be reduced by making lifestyle changes (Dunn 2009) that include healthy eating and maintaining a healthy body weight (National Heart Foundation of Australia 2008). However, current literature demonstrates a relationship between doctor trust and adherence (or compliance) to medical advice (Armstrong, Ravenell et al. 2007). This suggests that declining levels of patient and consumer trust in healthcare may compromise a patient's willingness to follow the dietary guidelines of healthcare professionals. The extent to which the risks involved in CHD (subsequent heart attacks, heart surgery, increased medication consumption, or death) impact on a patient's decision to trust in, and/or comply with, professional dietary recommendations remains unresolved. Researching trust in healthcare, and specifically CHD patients' trust in professional recommendations, provides an ideal vehicle for investigating the operationalisation and conceptualisation of trust.

1.2 Importance of trust research in public health

In keeping with Luhmann's theoretical perspective, Mechanic (1998b:662) argues that trust is an essential 'glue' in society because it allows individuals to pursue their actions without unnecessary suspicion. Trust has also been described as an important lubricant of a social system (Arrow 1974). Trust is a matter of concern in public health research because trust between a patient and doctor can encourage a patient's willingness to seek care (Russell 2005; Trachtenberg, Dugan et al. 2005), utilise health services (Mechanic 1998a; Russell 2005), adhere to medical advice, increase their involvement in medical care (Trachtenberg, Dugan et al. 2005), and encourage patients to submit to examination and treatment (Hall, Dugan et al. 2001). In addition, patient trust has been shown to enhance the likelihood of return for follow-up care (Thom 2000; Thom, Kravitz et al. 2002), increase patient receptiveness to health promotion counselling, facilitate health information exchange (Thiede 2005), enhance the quality of interaction between patients and doctors, facilitate patient disclosure and focus (Mechanic 1998a; Russell 2005), enable providers to encourage necessary behavioural changes, and may grant patients more autonomy in decision making about treatments (Mechanic 1996; Mechanic 1998a). Increasing cultural diversity and potential language barriers also demonstrate the crucial role of trust for patients struggling to accept diagnoses and to follow complex treatment plans (Tarn, Meredeth et al. 2005). In addition, patients who trust are more likely to be satisfied with the medical care they receive and to have positive clinical outcomes (Thom, Kravitz et al. 2002). For example, in a research project on how females with breast cancer want their doctors to communicate with them, researchers found that females with breast cancer did not think about their doctors according to whether they communicated well, but rather, they were concerned with whether they could trust their doctors (Wright, Holcombe et al. 2004).

Hall (2005) argues that trust has both intrinsic and instrumental value in doctor–patient relationships. Intrinsically, trust is important because it is a core characteristic that impacts both the emotional and interpersonal aspects of the doctor–patient relationship. Trust is also instrumental for therapeutic encounters (Mechanic 1998a; Hall 2005; Dew, Morgan et al. 2007). In terms of individual medical practice, trust is morally important (Rogers 2002). It is the responsibility of practitioners to encourage trusting relationships with their patients, as well as to provide a trustworthy representation of the medical system. Indeed, patient trust in

doctors has been found to be approximately one quarter higher, on average, than patient trust in the medical system (Hall, Camacho et al. 2002). However, once interpersonal trust in healthcare providers is lost, it is rarely rebuilt (Hupcey and Miller 2006).

This research is of particular value to the public health sector because it investigates the factors affecting CHD patients' compliance with dietary recommendations. As noted earlier, recent literature has demonstrated a relationship between trust in doctors and adherence (or compliance) to medical advice including treatment, prevention, and overall health advice (Armstrong, Ravenell et al. 2007). Investigating the factors that influence CHD patients' decisions to comply with dietary recommendations provides insight into how healthcare professionals might encourage patients to work towards decreasing the risks involved in heart disease through agreeing with and following recommendations.

1.3 Outline of thesis

The structure of the thesis is as follows. Chapter Two provides an overview of the applied and theoretical literature. This section provides a background to doctor–patient interactions and then moves on to identify the gaps apparent in theoretical and applied trust literature. In addition, it provides an overview of how the objectives of this thesis will address the gaps. Chapter Three provides a description of the methodological pluralism behind this thesis; constructivism and positivism. Chapter Four provides details about the methods of data collection. Given that this thesis has qualitative and quantitative components, the methods for each component are provided separately. Details about the research design, piloting, sampling, recruitment, data collection, data analysis, ethical considerations, and quality in research are presented within each section. Chapter Five provides a detailed account of the qualitative findings. This chapter is organised according to theoretical inquiry and addresses interpersonal trust, institutional trust, and the roles of risk, trust, and reflexivity in compliance with dietary recommendations. Chapter Six provides detailed analyses of the quantitative data. This section is organised according to lines of theoretical inquiry; interpersonal trust, institutional trust, trust in medical professionals, reflexivity, and the

operationalisation of trust. Chapter Seven provides an overview of the research experience including the strengths and limitations before moving on to a discussion of the qualitative and quantitative data with specific reference to the gaps outlined in the literature review. Chapters Eight completes the thesis with concluding remarks and recommendations for future research.

Chapter 2: LITERATURE REVIEW

2.0 Introduction

The following chapter provides an overview of current theoretical and applied literature surrounding social theories of trust and trust in healthcare. This chapter is divided into four sections. First, an overview of the systematic search used to unearth empirical and theoretical literature is provided. Second, a background and critical account of the evolution of the doctor–patient interaction literature is provided. Third, the theoretical frames of Giddens and Luhmann will be discussed in detail alongside applied empirical work that has utilised their theories. In this section, the way in which empirical research has engaged with the theories of Giddens and Luhmann is explored in addition to the gaps that remain in theoretical application and investigation. Fourth, a review of the theoretical and empirical gaps will be presented. Finally, the objectives of this thesis are presented in the fourth and concluding section.

2.1 Systematic search

Prior to beginning a systematic search, both theoretical and empirical trust literature were gathered from academics familiar with trust research, including the supervisory team. From these sources, relevant references cited in these papers were followed up. In addition, a search of relevant texts and peer reviewed literature in the field was undertaken and publications were subsequently collected. From the initial literature, key words used by the authors were noted and became the key words used for the systematic search of peer reviewed editorials, journal articles, and reviews.

A systematic search for empirical peer reviewed literature (years ranging from 2000–2009) was completed using relevant databases including CINAHL (2852 articles found total in search[1]), PubMed (1271 articles found total in search), ISI Web of Knowledge (8301 articles found total in search), and keywords (heart disease, CHD, coronary, trust, reflex*, modern*, interpersonal trust, institutional

[1] The numbers provided for total articles found in each database are the collective numbers found for each individual search. As a result, many of the articles are accounted for a number of times because they were found in a number of searches. Therefore, the number of actual articles found is significantly lower than stated.

trust, nutritionist, dietitian, trust in physician scale, food system, doctor, Luhmann, Giddens, social theory). As noted above, the key words initially used were taken from the trust literature reviewed prior to the search. As relevant literature was found in the searches, additional key words were included as part of the search. This was an iterative process that continued throughout the three years of candidature. The databases were chosen based on consensus criteria and university access, as well on the content of journals housed by each database. CINAHL is primarily a nursing database and PubMed contains primarily scientific medical literature. Both databases provided articles addressing physical health within the context of patient/doctor trust. ISI Web of Knowledge covers the disciplines of science, social science, and humanities, which allowed the collection of theoretical as well as empirical literature.

Searches were limited to peer reviewed sources only. The inclusion/exclusion criteria for choosing each article were based on the content of the article rather than the quality of the article. No measures or protocols of inquiry were used to address quality of methods/findings (Pawson 1989) other than the literature had to be peer reviewed. The literature was chosen based on content because the aim was to explore the breadth of the literature, not to complete a systematic review. All relevant peer reviewed literature was considered throughout the literature collection process as a means of determining the scope of research and identifying the gaps.
As noted above, the systematic search for empirical data was limited to the past nine years (2000–2009) as a means of obtaining current and relevant data. The theoretical literature was not limited in terms of date because the theories discussed throughout this thesis were published within the past four decades but remain cited consistently.

The collection of literature consisted of peer reviewed journal articles, reviews, editorials, and academic books. The literature was collected from peers, university libraries, obtained on loan from libraries nationally and through book order. Each piece of literature was read and detailed notes collected. The notes and relevant electronic copies were kept in an electronic library organised according to subject matter. While the notes were being compiled, gaps became apparent and formed the basis of further literature searches and the research objectives.

2.2 Background to doctor–patient interactions

Before moving on to a discussion of theoretical and applied literature specifically related to trust, it is pertinent to the development of this thesis to provide a literature review of the debates around the doctor–patient interaction. This section will outline the evolution of the theories of doctor–patient interactions through the latter half of the 20th century. Although the following literature is not specific to trust, it remains useful for understanding the role of trust in doctor–patient relationships.

As a means of framing the evolution of theoretical accounts of doctor–patient interaction, Kilminster's (1998:153–162) three phases of the development of sociology will be employed (Kilminster 1998). Scambler and Britten (2001:45) identify this framework as functional for addressing the evolution of doctor–patient interaction. The three phases are identified as: the monopoly phase (1945–1965), the conflict phase (1965–1980), and the concentration phase (1980–present). Scambler and Britten suggest that each of these three phases correspond with shifts in theories of doctor–patient interaction. Scambler and Britten's (2001) paper focuses on doctor–patient interaction in the concentration phase. However, their suggested framework of the three phases has been employed in this thesis as a means of providing a background to theories of doctor–patient interaction. In addition to providing a critical account of doctor–patient interaction literature throughout these three phases, discussion of the current phase (the concentration phase) will identify where this thesis fits within the current developmental phase of sociology.

Prior to providing an overview of the phases, a brief history of doctor–patient interaction since the turn of the 18th century is provided.

2.21 Background

The medical profession in the latter half of the 20th century has been denoted as a profession of power and authority (Conrad 1992). Starr (1982:3) suggested that 'In America, no one group has held so dominant a position in this new world of rationality and power as has the medical profession.' However, as little as a century ago, the medical profession had much less prestige, income, and power (Lupton 2003). Up until the end of the 18th century, people tended not to seek help from medical practitioners but

preferred to medicate themselves or change their lifestyles when ill: 'what is quite conspicuously absent during the eighteenth century is any sign that lay people began to entrust or resign the care of their bodies solely to medical professionals' (Porter 1992:103).

When individuals in the 18th century did choose to seek medical attention, treatment was dependent on self-reported symptoms (Jewson 1976). However, by the start of the 19th century, there was a massive shift towards orthodox and commercial medicine. This shift was augmented by the fact that individuals were already health and medicine conscious. The fact that in the previous century personal and professional medicine were complementary was beneficial in the rise of the medical profession because individuals were previously interested in health and medicine (Porter 1992).

The commercialisation of orthodox medicine was partly initiated by the growth of medical advice books that provided lay individuals with details of illness prevention. The turn of the 19th century also saw a shift in control of the means of production of medical knowledge; a turn away from the sick towards medical professionals (Jewson 1976). Rather than negotiate their own treatment as in previous times, lay individuals' treatment became the decision of a community of health professionals (Jewson 1976; Kelleher, Gabe et al. 1994) or medical experts. This development, along with improved technology and subsequent improved medical practice and recovery rates, led to a rise in the status of the profession of medicine (Herzlich and Pierret 1987)cited in Lupton 2003). In addition, doctors benefited from their role as gatekeepers which, with the rise of pharmaceuticals, enhanced the lay perception that doctors provided access to means of improving health and minimising discomfort or pain (Kelleher, Gabe et al. 1994). An important aspect of the recognition of the medical profession was the lay acceptance that disease was caused by specific entities (bacteria, viruses) that were not visible to the naked eye (Lupton 2003), rather than divine intervention or witchcraft (Porter 1992).

As technology increased, medicine shifted to a profession informed by objective and rigorous modern technology and scientific knowledge (Starr 1982; Lupton 2003). This knowledge was, for the most part, beyond the understanding of lay individuals, which resulted in medicine's privileged status (Zola 1972; Starr 1982; Kelleher, Gabe et al. 1994) and 'persuasive claim to authority' (Starr 1982:4). By the turn of the 20th century, it is argued that patients had lost their relevance and power in the

medical encounter and their responsibility in diagnosis. It was now the responsibility of the medical practitioner to reserve judgement over the discovery and labelling of illness (Lupton 2003). The sick person played a passive and uncritical role in the consultative relationship (Jewson 1976).

Until the past few decades, the role of the doctor as a dominant and unchallenged professional remained. However, by the 1950s the medical gaze was in a state of transition (Armstrong 1984; Arney and Bergen 1984) and patient compliance with medical advice could no longer be assumed (Lupton 2003).

This section now moves to a review of the theoretical debate in the sociology of doctor–patient interaction. The shift in the theories presented coincides with what Kilminster (1998) has suggested are three phases of the development of sociology. These three phases have been used as a framework for presenting a critical review.

2.22 Monopoly phase

During the monopoly phase, although other kinds of sociology were also present within institutionalised sociology, structural functionalism as a general theory of society effectively had no rivals. Such is the case for theoretical accounts of doctor–patient interaction, because Parsons' structural functionalist approach was the central paradigm in understanding and explaining doctor–patient interaction. The impact of his work remains evident as a central focus both of substantiating arguments and developing critical analyses within current doctor–patient literature. Indeed discussion of the 'sick role' remains a prominent feature of literature in medical sociology (Lewis and Weigert 1985; Zola 1991; Conrad 1992; Mechanic 1998a; Pescosolido, Tuch et al. 2001; Shilling 2002; Schnittker 2004; Goudge and Gilson 2005; May 2007; Weiner 2009).

Whilst Parsons' contribution to medical sociology is considerable, the following discussion of his work does not do it justice as it is not the main focus of this thesis. Rather, a brief overview is provided as a background to the evolution in theories of doctor–patient interaction. Parsons is perhaps most well known for his discussion of the 'sick role' (Parsons 1974; Parsons 1975; Parsons 1978; Parsons and Fox 2010) that is associated with three socio-structural features (Shilling 2002). First, an individual's illness is not regarded as his or her fault yet the sick individual has a moral responsibility to overcome the illness as soon as possible. Second, the sick

individual is temporarily obligated to abstain from ordinary social responsibilities and expectations. Third, the sick individual is required to seek help from a health professional while cooperating with the professional in the process of recovery (Parsons 1974; Parsons 1975; Parsons 1978; Parsons and Fox 2010).

In his theorisation, Parsons shaped the way in which doctor–patient interactions are viewed. The relationship is one that is seen to rest on institutional norms outlining a universal set of risks and obligations for the ill individual. Therefore, while it has been argued that Parsons' theory is analytically limited in current times, Shilling (2002) argues that Parsons' work may be interpreted as providing us with an analytical resource that may be used to predict an increase in informed consumers of health. If the focus remains on the institutional norms present in society, we may still utilise Parsons' theory as a means of predicting and understanding doctor–patient interactions. Shilling (2002) also suggests that Parsons' theory may highlight reasons why the patient's role has transitioned and argues that his theory remains a beneficial resource for sociologists. Perhaps this is why Parsons' theoretical frame 'monopolised' the sociological literature on doctor–patient interaction in the 1950s and 1960s and remains cited through sociological literature (Lewis and Weigert 1985; Zola 1991; Conrad 1992; Mechanic 1998a; Pescosolido, Tuch et al. 2001; Shilling 2002; Schnittker 2004; Goudge and Gilson 2005; May 2007; Weiner 2009).

Indeed Parsons' structural functionalist theories have provided a framework for investigating doctor–patient interaction. However, the criticisms of his work provide a beneficial background for introducing Kilminster's second phase of the development of sociology, the conflict phase.

2.23 Conflict phase

The conflict phase of sociology is considered a period whereby sociologists were at the height of a search for alternatives to the orthodox consensus: 'in this phase, many sociologists expressed doubt about previously hallowed principles regarding knowledge, truth and the basis of social science and the possibility of a science of sociology was itself thrown into question from many perspectives' (Kilminster 1998:156). Sociology began to shift away from the parameters of structural functionalism. This development can be witnessed in the shift in theories of doctor–patient interaction.

While Parsons' theory of the sick role held a monopoly in sociological literature underlying doctor–patient interaction, the conflict phase was witness to an increase in competing theories. For example, Parsons' ideas regarding the sick role focused on the asymmetrical relationship between the 'active' doctor and the 'passive' patient as being functionally appropriate. Friedson offers a separate paradigm (Friedson 1970a)cited in Scambler and Britten 2001) insisting that the patient is also 'active'. This allowed room for argument within discussions regarding the asymmetrical relationship – theorisations of the relationship took into account the possibility of value in lay constructions and the potential for clashes between the 'lay' and 'expert' (Friedson 1970b)cited in Kelleher, Gabe et al. 1994).

The shift in paradigm is evident in debates of Parsons' writings. Parsons has been criticised for the rarity of mention given to the cultural parameters that shape doctor–patient interactions (Alexander 1984). Shilling (2002) challenges this argument and suggests that Parsons adequately addresses these cultural underpinnings. For example, his suggestion that Christianity underpinned socialisation and social institutions concerned with health provides evidence of his acknowledgements (Parsons 1978). The suggestion that religion underpins the sick role may have been superseded in recent times because of the decline in organised religion (Zola 1972). However, Parsons' acknowledgement of the cultural underpinnings of the medical encounter is still useful for highlighting how contemporary developments shape the consumption of health information (Shilling 2002) and in turn impacts on our understanding of doctor–patient interactions. For example, the shift that has occurred in the growth of and access to health-related information is a prominent trend in society and in sociological literature (Giddens 1991; Nettleton 2005). Shilling (2002:622) argues that 'Parsons' writings can be interpreted as anticipating them, as helping to explain their emergence and as qualifying their relevance to lay behaviour.'

The shift in cultural underpinnings affecting doctor–patient interaction is evident in sociological discussion about the increase in consumption of health information as the result of the Internet (Hardey 1999; Kuhlmann 2006). Cultural constructions of health-related information have had an impact on the doctor–patient relationship. Doctors now have to compete with other sources of knowledge (Kuhlmann 2006). Individuals accessing health related information may utilise alternative sources as a way of avoiding what Parsons viewed as the experts of healthcare (Shilling 2002). Indeed, as it will be noted throughout this thesis, post-enlightenment thinking has led

to a loss in the confidence of science and a scepticism regarding experts' abilities to deliver us control over our bodies (Beck 1992). In addition, in the early 1960s, along with lay individuals, most sociologists accepted medicine's definition of itself as a profession that utilises expert knowledge (Kelleher, Gabe et al. 1994). However, in the early 1970s, sociologists' criticisms of the medical profession increased; some of which argued that medicine itself was responsible for creating a need for its services. By medicalising problems of ordinary life (e.g. pregnancy, menopause) the medical profession heightened the need for medical services (Zola 1972; Illich 1975).

Doctor–patient interaction literature was abundant in the 1960s, 1970s and into the 1980s (Zola 1966; Zola 1972; Illich 1975; Waitzkin 1985; Gerhardt 1989; Waitzkin 1989a; Waitzkin 1989b). However, in recent decades the majority of sociological literature being published on the topic, although enlightening, provides a review or theoretical spin-off of prior writing (Freund and McGuire 1995; Ong, de Haes et al. 1995; Scambler and Britten 2001; Williams and Popay 2001; White 2002; Lupton 2003; Gabe, Bury et al. 2004; Nettleton 2005; Germov 2009). The reason for this is that sociology has seen a third development in the construction of sociological knowledge which Kilminster (1998) refers to as the concentration phase.

2.24 Concentration phase

The tension in the concentration phase is between the alternatives of theoretical synthesis and theoretical pluralism. Contrary to the conflict phase, the tendency in the concentration phase is toward a synthesis rather than a pluralistic model (Kilminster 1998). As noted above, rather than constructing new theories, academics are critiquing or altering previous writings. This is evident in the doctor–patient interaction literature. Recently, doctor–patient relationships have received interdisciplinary interest (Schnittker 2004) and there has been a shift towards holistic theoretical perspectives.

Critical accounts of earlier writings argue that maintaining doctor–patient relationships is far more problematic that Parsons' framework allows for (Mechanic 1996; Davies and Rundall 2000), which calls for a more comprehensive understanding of doctor–patient interactions. The asymmetry of power Parsons once discussed has become far more complex. Not only do patients face uncertainty in their prognosis and their healthcare providers' skills, but doctors also face

uncertainty in their diagnosis (Fox 1957). Research on trust, rather than focusing on the doctor–patient asymmetries, has turned to focus on patients' growing awareness of heath knowledge (Hall 2001) via consumerism. Indeed, a doubting consumer does not fit into the Parsonian picture of the 'sick role' (Haug and Lavin 1981).

Since the late 1970s, the position of the medical profession has shifted and the power of medicine challenged (Kelleher, Gabe et al. 1994). This noted change has been in part due to the growth of alternative medicine, which has been theorised to be the result of wider social and cultural changes that have altered individual expectations about health. One of these noted changes is the notion of 'popular epidemiology' or the rise of lay forms of knowledge (Brown 1992; Popay and Williams 1996) as many individuals are doing their own research into health behaviours. Indeed, it has been suggested that globally, health related information falls second only to pornography as search criteria on Internet search engines (Shilling 2002). As a result, the knowledge gap that once divided lay and professional knowledge is narrowing (Haug and Lavin 1981).

The doctor–patient relationship has been redefined during recent years as patients have become less willing to tolerate a subordinate role (Kelleher, Gabe et al. 1994). As a result, the question of patient autonomy and reflexivity has become central in the literature on doctor–patient interaction rather than the asymmetry discussed by Parsons. However, rather than either–or statements, sociological developments have led to a rise in a range of factors contributing to the doctor–patient relationships – a synthesis of perspectives (Kilminster 1998).

This shift towards theoretical synthesis is evident in the paradigm shift in the compliance/concordance debate regarding doctor–patient interactions. Parsons argued that the role of the patient is to cooperate with the doctor in the recovery process. While Parsons acknowledged that lay individuals do at times adopt active approaches to their health and are motivated to acquire knowledge, he argues that this activity is constrained by the asymmetrical character of the doctor–patient relationship (Parsons 1951; Parsons 1978). The idea that the asymmetrical relationship constrained patients in their role in medical decisions has been challenged by recent literature. Bissel, May et al. (2004) suggest that there is a growing awareness of the limitations of the compliance and adherence models in terms of their application to healthcare relationships. It has been suggested that the common alternatives – adherence or cooperation – do not take the user very far

from compliance (Mullen 1997). Mullen (1997:691) suggests that concordance is the concept that can be used to combat the 'compliance problem.' There is currently a shift toward incorporating patients' perceptions into medical decisions (Thompson 2007). Post-industrialised countries have witnessed a shift from acute to chronic health conditions due to increasingly affluent living conditions and access to healthcare. Consequently, contributions on the part of patients in managing their chronic conditions have become increasingly important (Thompson 2007), requiring patients to take an active role in their own healthcare.

The concepts of compliance and adherence have been extensively researched and highly criticised when discussed in relation to healthcare relationships (Bissell, May et al. 2004). The main criticism stems from the notion that the use of the word compliance offers justification for attributing blame to patients when they do not follow the expectations of healthcare providers (Britten 2001). In addition, compliance denotes obedience (Mullen 1997) rather than individual agency. The criticism lies in the fact that, contrary to Parsons' theorisations of the sick role, individuals are reflexive agents of action. Using the word 'compliant' indicates submission, denigrating lay individuals. In addition, the word compliance implies a form of social control on the part of medical professionals; to be non-compliant is to be deviant: 'the greatest social control power comes from having the authority to define certain behaviours, persons and things' (Conrad and Schneider 1980).

The idea that patients are 'compliant' is at odds with the argument that some patients are playing a larger role in their medical decisions (Meyer, Ward et al. 2008), as is suggested by Giddens' notion of reflexive modernisation. While medical professionals do play a role in medical decisions, literature suggests that currently the doctor–patient relationship is one of concordance rather than compliance. Patients are playing a larger role than in previous times. Health system representatives (for example, healthcare professionals) at all levels have to convince their patients to share personal information, details about their symptoms, submit to tests, and take potentially poisonous chemicals into their bodies. In order for patients to permit these procedures and release personal information, a concordant relationship between the patient and doctor is imperative. The aim of concordant relationships is the establishment of a therapeutic alliance between a doctor and patient (Bell, Airaksinen et al. 2007), rather than patient dependence (Meyer and Ward 2009b). Rather than the doctor dictating the line of treatment, the doctor and patient come to an agreement.

In relation to the sociological developments guiding this research, given the current 'compliance problem' it may be argued that rather than discussing patient compliance with dietary recommendations, this research should be investigating doctor–patient concordance by investigating participants' agency and reflexivity in their 'choice' to abide by the recommendations of their doctors. However, despite the shift in ideology regarding the role of patients in managing their health, it has still been argued that without trust, professionals would not be consulted and compliance would not occur (Dew, Morgan et al. 2007). The word compliance was specifically chosen because the concept itself infers a lack of agency or reflexivity. Accordingly, part of the research question was to investigate whether trust played a role in patient agency and reflexivity. The research was designed to investigate if patients simply comply[2] with dietary recommendations or if they actively choose to trust. Given the nature of CHD and the inherent risk, it could be argued that a proportion of the patients may not have a concordant relationship with the health professionals providing information because there is a level of vulnerability, reliance or dependence on the health professional. In addition, literature suggests that not all patients take an active role in their medical decisions (Hall 2005). The word compliance has been chosen as a means of investigating patient reflexivity and/or agency and whether risk or other social factors impact the role patients play in their medical decisions; their level of compliance.

Most relevant to this sociological development, the concentration phase, is the recent discussion of the structural elements of medical encounters (Waitzkin 1989a). Throughout the 1980s health service researchers shifted their attention away from the doctor–patient relationships, which had been extensively investigated, toward using a more macro-level approach. In this lies the unpinning philosophy of this phase of the sociological debate on doctor–patient interactions. Current sociology takes into account both the macro- and micro-level processes involved in the doctor–patient interaction, combining or synthesising paradigms. It is acknowledged that interpersonal processes, such as the doctor–patient relationship, occur in a

[2] For the purpose of this research, compliance is discussed with regard to dietary recommendations. The researcher is not aware of treatment plans or dietary regimens given to the participants. As such, discussion regarding compliance revolved around current eating habits and the changes they have made since their cardiac event or being put on medication. In addition, we discussed the barriers to compliance, which provides insight into situations in which patients do not demonstrate compliance. For this reason, compliance is not viewed as a dichotomy; compliance or non-compliance. Instead, the results are discussed in relation to levels, or lack, of compliance.

social context that is shaped by macro-level structures (Waitzkin 1989a). Indeed, it is commonplace that individuals are becoming more critical both of experts and institutions (Taylor-Gooby 2006d). Waitzkin (1989a:221) argues that 'one challenge for social theory has been to clarify how macrolevel social structures and microlevel processes affect one another.' While many academics have dealt with this challenge by arguing the importance of the macro-level structures like social class, others have argued that macro-level processes are only a reflection of everyday micro-level processes (Waitzkin 1989a). However, reflective of this phase in the development of sociology is the suggestion that 'a compromise position holds that macrolevel structures profoundly influence interpersonal processes, but that microlevel processes cumulatively reinforce social structures and the macrolevel as well' (Waitzkin 1989a:221).

Given the sociological developments outlined in the previous section, there would seem to be reason to reassess the usefulness of existing theories in explaining the current position of the medical profession and doctor–patient interactions. Within the current concentration phase of sociology there are many theoretical accounts of doctor–patient trust. This thesis is an attempt to address Waitzkin's challenge regarding the clarification of how macro-level and micro-level processes affect one aspect of the doctor–patient interaction; namely doctor–patient trust. This thesis synthesises two social theories to provide a framework for investigating doctor–patient trust at both structural and interpersonal levels.

2.3 Conceptualisations of trust

2.31 The evolution of trust as a theoretical concept

Since the 19th century, trust has occupied several generations of social scientists, particularly sociologists (Salvatore and Sassatelli 2004). Many classic theorists such as Hobbes, Locke, Smith, and de Tocqueville have been prominent figures in the study of trust (Salvatore and Sassatelli 2004). More recent contemporary literature on trust has acknowledged the works of sociologists such as Simmel, Frankel, Lewis and Weigert, Misztal, Fukuyama, Putnam, Luhmann, and Giddens (Wolff and Simmel 1950; Mechanic and Meyer 2000; Mollering 2001; Bordum 2004; Salvatore and Sassatelli 2004; Bordum 2005; Brownlie and Howson 2005b; Andreassen, Trondsen et al. 2006; Ward 2006; Ward and Coates 2006). Throughout the trust literature, two sociologists remain prominent: Niklas Luhmann and Anthony Giddens

(Lupton 1997a; Mechanic and Meyer 2000; Gilson 2003; Bordum 2004; Salvatore and Sassatelli 2004; Bordum 2005; Pearson, Crane et al. 2005; Andreassen, Trondsen et al. 2006; Gilson 2006; Rowe and Calnan 2006; Ward 2006). Giddens' and Luhmann's theories were chosen as the framework for this thesis. They were specifically chosen because their work builds on the early works of Simmel and has been applied and critiqued by the works of the other listed theorists. Luhmann's theories also build on the work of Parsons which is in fitting with this thesis as it investigates doctor-patient interaction and trust. In addition, these theorists operationalise trust differently, which presented an area of investigation. Before addressing the social theories of trust and how they have been applied in empirical work, a comprehensive overview of their theoretical frameworks is essential. Outlined below are the theories of Giddens and Luhmann which offer compelling insight into the conceptualisation of trust.

2.32 Giddens' and Luhmann's theories of trust: An overview

Before moving into a critical examination of Giddens' and Luhmann's ideas, it is essential to acknowledge that both theorists specifically recognise two types or levels of trust; institutional trust and interpersonal trust. What separates the two theorists is the way they operationalise these types of trust. Interpersonal trust (Fukuyama 1995) or personal trust (Luhmann 1979), also termed facework by Giddens, (Giddens 1994) is regarded by both Giddens and Luhmann as being negotiated between individuals (a decision to trust someone or not) and as a learned personal trait. Institutional trust (Luhmann 1990) (also termed abstract (Giddens 1991), systems based (Fukuyama 1995) or faceless (Giddens 1994)) is trust which is placed in the system or institution.

The following headings will be used as a framework for outlining the theories of Giddens and Luhmann and the current applied empirical literature: ideas on social change (structuration theory versus social systems theory); the impact of modernity on trust; conceptualisations of trust; and trust as a function in/for society. Some of the ideas Giddens and Luhmann discussed do not directly relate to trust. However, it is important to understand some of their macro-theoretical ideas about social change in order to contextualise and fully understand their conceptualisations of trust. An understanding of their conceptualisations is essential for understanding the critical analyses of their work that have led to the empirical investigation for this

thesis. In the following review, along with the theoretical literature, each section will outline how the social theories of trust have been applied in current empirical research on trust.

2.33 Ideas on social change

Giddens' ideas on social change may be captured by the notions of a 'self-referential society' that is built on an 'agency-structure dualism'. Giddens is well-known for his structuration theory which is an attempt to resolve theoretical dichotomies of social systems such as agency/structure and micro/macro perspectives (Giddens 1986). For Giddens, a structure is composed of rules and resources that both govern and are available to agents. Humans are seen as agents; agency is expressed through human action. Giddens explores whether it is individuals (micro) or social forces (macro) that shape social reality but he avoids complete structural or agent determinism (Giddens 1986). Instead, he ties agency to structure because, together, they interact and (re)produce society (Giddens 1986). He refers to this balance of structure and agency as the duality of structure – that is, that social structures make social action possible, and at the same time, that social action creates those very structures.

In his theory, Giddens also acknowledges that social structures are not unbreakable or permanent. As society constructs social structures through the repetition of actions, equally these constructs can be deconstructed. Giddens explains this as the 'reflexive monitoring of our actions' (Ortmann and Salzman 2002), meaning that individuals are able to look at their actions and judge their effectiveness in achieving their objective. Institutions (systems) are reflexive in that individuals can, as agents, use the knowledge they have about a social structure as a constitutive element to transform its organization (Giddens 1991). Individuals can reproduce and transform structure (Giddens 1986). Structuration theory relies on the notion that our actions as agents are constrained and enabled by structures that are in turn produced and reproduced by our actions; the duality of structures (Giddens 1986).

Luhmann views society as a variety of systems that mutually interact and influence one another (Stehr and Bechmann 2005). Luhmann is well known for his influential social systems theory that studies the complex systems that exist in nature, society,

and science. It is a framework that affords the possibility of analysing the process of (re)producing a system within a system, boundaries within boundaries, and distinction within the distinguished (Luhmann 1997). The basic characteristics of social systems theory are social differentiation[3] and system formation; the differentiation of society and formation of internal and external systems. Society, via communication, is differentiated into social systems based on the function of the systems (Luhmann is regarded by some as a functional structuralist), which has led to the development of social systems such as the economic, legal, political, and artistic systems. These are essentially differentiated by the form and semantics of communication within and outside of them.

Whilst Luhmann's ideas on social change may also be partly captured by the term 'self-referential society', one also needs to keep in mind the centrality of 'autopoiesis', which comes from biological systems theory. Autopoiesis is a process whereby systems (in this case, social systems) strive to develop themselves as self-managing or self-organising systems that can develop and maintain their boundaries with the outside world (in this case, other social systems) (Mingers 2004; Borch 2005; Van Assche and Verschraegen 2008). For Luhmann, all systems' boundaries depend on the self-organization of sub-systems (Luhmann 1997). If we understand society as a global system, then all systems within society depend and mutually interact with all other systems and subsystems. Unlike Giddens' structuration theory, social systems theory does not address the individual other than to say that individuals (or psychic systems[4], as they are referred to by Luhmann) (re)produce systems. Being social involves a network of communications or interactions. Individuals in society use the environment to stimulate communication in order form common identities, internal systems, and boundaries between other systems and the environment (Stehr and Bechmann 2005).

Luhmann argues that the objective world outside of an internal system is more complex because the modern world consists of more possibilities than the system itself can realise. For example, a medical system consists of many internal systems

[3] Social differentiation was the first concept of society that established a theory which contained directions for analysis. Social differentiation has proven to be irreplaceable despite all of the criticisms that have been aimed at it (Luhmann 1990).

[4] Luhmann's use of the term 'psychic systems' refers to individual agents.

that consist of communicative actions (the communicative actions between expert areas, administrators, accountants, and legal representatives, among others) between specialised individual roles. Were it not for these divisions, the medical system itself would be too complex to maintain organisation. The representatives of the system would have to know far too much information about several specialties (law, medicine, administration). Consequently, internal systems exhibit a greater deal of order because they have fewer possibilities (less variation in understanding) than the outside world (Luhmann 1979). The system has a subjective representation of the world and reduces the world's complexity to an amount that it can meaningfully orient itself with, by structuring the possibilities of its own experiences and actions through the agreement of the system's members (Luhmann 1979). The inner order of a system helps to stabilise an extremely complex environment by organising a less complex system-order that is better suited to human capacities for action (Luhmann 1988).

Jalava argues that previous texts built on Luhmann's theories do not see trust as part of Luhmann's autopoietic systems theory (Jalava 2003). However, it is important to understand Luhmann's organisation of society because trust is viewed as a major component in the reduction of complexity between and within modern social systems. In other words, social systems cannot adequately deal with the sheer complexity of their environments (which are made up of all other social systems) and therefore aim to reduce this complexity by limiting possibilities and developing trust. The same is true for individuals, who again cannot adequately deal with the complexity of the social world, and hence the need for trust. In this way, trust becomes the core functional element that maintains social order and functioning.

Giddens' ideas around social change are also apparent in the applied literature on doctor–patient interactions. Because this has been covered extensively in section 2.2 above, the following discussion of the applied literature is specific to doctor–patient trust. The noted shift in the doctor–patient relationship is one of the explanations for the growing decline in trust in healthcare. Some patients are seeking to take back control of their health because medical information is readily available through media, technology, and education. However, it has also been argued that the ability to take control and to seek out alternative information is not equal in all patients (Gilson 2006; Meyer and Ward 2008; Meyer, Ward et al. 2008).

As discussed in relation to compliance, not all patients play an active role in medical decisions. In addition, not all patients want to play an active role.

As noted in the introduction, there has been an increase in the availability of information accessible to the lay population. Thus, an increased proportion of patients act as reflexive agents in relation to medical decisions. However, not all patients have the ability to make informed decisions regarding the trustworthiness of (mis)information available to lay individuals. For example, Meyer, Ward et al. (2008) argue that the ability to make informed choices is not equally open to all people/groups within society and that Giddens does not adequately acknowledge the discrepancies between the 'information rich' and the 'information poor' (Elliot 2001). As Shilling (2002:634) states: 'different patterns of socialization result in class-based orientations towards symbolic knowledge which affect the degree to which the social world is seen as open to individual intervention' (Shilling 2002). This has also been referred to as the structural patterning of reflexivity, or 'stratified reflexivity' (Ward 2006; Ward and Coates 2006). Lupton (2003, p.125) also stated that 'those who are socio-economically disadvantaged have less access to education, resources and such publications as consumer guides compared with people of greater socio-economic advantage.' Thus, it is inevitable that there will be a difference in patients' abilities and desire to make concordant or 'informed' decisions regarding their health.

It has been argued that one factor leading to the decline in trust is the fact that the lay population are constantly confronted with health messages that are often conflicting, contradictory, and change over time (Henderson, Ward et al. 2010). This has led many authors to suggest that we are in a state of liminality (Bauman 1987; Armstrong 1993; Gifford 2002). The consequences of such liminality are that lay people begin to question the validity of medical knowledge and hence, the trustworthiness both of medical practitioners and the system on which their knowledge is based. In this way, trust in the health system (or any other social system) can no longer be simply taken for granted or expected; it has to be worked on and won, through a process of negotiation (Giddens 1990; Giddens 1991; Taylor-Gooby 1999). The result of these inconsistent messages are that a growing proportion of the lay population is questioning the validity of medical/scientific knowledge and hence, the trustworthiness both of medical practitioners and the system on which their knowledge is based. Health information can be understood as being provided in a broadcast sense (Hardey 1999). It is conveyed by family members, peers, through educational sources, by health professionals, and by

sources of information outside of the health system (Thiede 2005), including influential media sources and celebrities. The 'utilization of health services is generally subsequent to the consumption of information' (Thiede 2005:1454), often regardless of whether it is from potentially unreliable sources (Meyer and Ward 2008). However, the ability to question the validity of medical/scientific knowledge is unequal across the lay population. As discussed previously, there are a number of factors that can permit or restrict access to healthcare. These include knowledge about health and health services, the level and accessibility of knowledge provided by healthcare professionals (Thiede 2005), the level of the individual's health literacy (Zarcadoolas, Pleasant et al. 2005; Greenhalgh, Robb et al. 2006; Ishikawa and Yano 2008; Pleasant and Kuruvilla 2008), and individuals' desire to participate in medical decisions and to use health services (Thiede 2005). As a result, trust is often unequally distributed within societies because it is easier for individuals who already benefit from social systems (economic system, political system) to trust as opposed to those with poorer resources (Gilson 2003). There is a gap in the theoretical literature because these social factors have not been included as factors influencing the operationalisation and conceptualisation of trust. In addition, empirical literature on trust in healthcare professionals does not specifically frame research to investigate the combined role of socio-economic status (SES). This thesis investigates SES as measured by the Index of Relative Socio-Economic Disadvantage and annual household income. The question remains as to what extent social factors affect patients' reflexivity and agency in medical decisions and in the decision to trust. This thesis investigates these social factors as a means of determining factors affecting the level of reflexivity patients have in their decision to trust health professionals.

2.34 The impact of modernity on trust

A key component to understanding Giddens' theory of trust is a process known as reflexive modernisation (Beck, Giddens et al. 1994). In his book Consequences of Modernity, Giddens elaborates on the ways in which modern social forces have made the interpenetration of self-development and social systems more pronounced (Giddens 1991). Media, printing, and electronics are extensions of the social forces that shaped previous eras. With the expansion of mass communication, particularly electronic communication, the interpenetration of self-development and social systems, up to and including global systems, has become more pronounced (Giddens 1991). This expansion has played a central role in mediating the

organisation of social relations, and in turn created a demand for expert systems (Giddens 1991).

Expert systems are systems of expert knowledge of any type, depending on rules of procedure transferable from individual to individual (Giddens 1991). Expert systems now penetrate nearly all aspects of social life in conditions of modernity (Giddens 1991; Habermas 1997; Scambler and Britten 2001), such as the food individuals eat, or medicines individuals take. Expert systems extend to social relations and to intimacies of the self. Doctors, surgeons, and practitioners are all as central to the expert system as the scientists, technicians, and engineers that create the medications and tests that doctors deploy (Giddens 1991). This differs from enlightenment because now that space and time are virtual, expert systems deploy technical knowledge that has validity independent of the practitioners who make use of them. Pre-enlightenment, individuals knew who made their food and who prescribed their medications. We now rely on expert systems in the absence of a personal relationship with them (Giddens 1991). This is what Giddens identifies as the differentiated concept of trust[5] (Giddens 1994). We trust in these expert systems because they compensate for the limited technical knowledge that most people possess about the information that routinely affects their lives (Giddens 1991). The trust we place in expert systems presumes a 'leap of faith' that is specifically related both to ignorance and to the virtual time and space that modernity creates. For instance, there is no trust required if we completely know an expert system (how the technology of medicine occurs or exactly what the factors are surrounding a doctor's diagnosis) (Giddens 1991). Trust in modernity underlies a mass of everyday decisions that individuals are confronted with. However, trust is no longer always the result of consciously taken decisions; expert systems bracket our ignorance and simplify the factors in our decision to trust (Giddens 1991).

Whilst dependence on expert systems is increased in modern society, Giddens also argues that expert systems themselves cannot adequately anticipate the future (Giddens 1991). For example, medical errors can and do occur despite their 'expert' knowledge. This recognition has led to a push for more reflexive individuals who no longer depend on the state but instead become agents of choice. Giddens (1991:144) argues that citizens desire more agency in discussions about the

[5] Giddens' differentiated concept of trust is the idea that technical knowledge is valid regardless of the person who is making use of it.

sequestration of experience, also described as lay re-skilling (Hibbert, Bissell et al. 2002). This topic outlines the myriad of ways in which lay people seek to take back control over their own lives, either through a rejection of certain aspects of technology or through re-appropriating different forms of technology for their own devices (for example, self care) (Meyer, Ward et al. 2008).

Modernity has created a need for expert systems because it is increasingly reflexive; so much so that it can 'confound the expectations of enlightenment thought' (Giddens 1991:21). Enlightenment scientists and philosophers thought they were paving the way for secure knowledge of the social and natural worlds. In reality, modernity has increased reflexivity and actually undermines the certainty of knowledge. We now demand proofs while still maintaining a principle of doubt. Modernity has expanded the doubt that once only disturbed enlightenment thinkers to one that is existentially troubling for ordinary individuals (Giddens 1991). Trust in modern expert systems underlies everyday decisions because it brackets out potential occurrences that, were the individual seriously to contemplate them, would produce a paralysis of will (Giddens 1991), or as Beck (1992:37) calls it, 'eschatological ecofatalism'.

Giddens and Beck argue that society is constantly forced to anticipate outcomes and assess risk as a result of modernity and increased reflexivity (Beck, Giddens et al. 1994; Giddens 1994). As modern circumstances of uncertainty increase, the notions of trust and risk come to have particular applications in the functioning of society (Giddens 1991). Giddens (1991:109) states that 'to live in the universe of high modernity is to live in an environment of chance and risk', which fits with Beck's theory of the risk society (Beck 1992; Beck 2005). He goes on to make the explicit link between risk and trust, particularly relating to ideas about ontological insecurities. In other words, the need for trust is increased in times of insecurity.

Modern society has been conceptualised elsewhere as a risk society (Beck 1992). This is not to say that social life is more risky that it used to be, but rather, we now conceptualise risk as a fundamental means by which lay people and technical specialists organise the world (Giddens 1991). In modernity we are continually drawn into the present through reflexive organisation. We are constantly forced to anticipate outcomes and assess how things are likely to diverge (Giddens 1991). Modernity reduces the overall riskiness of certain areas of life, while introducing new risk constraints that were unknown in previous eras (Giddens 1991). In previous

eras, we did not have large pharmaceutical companies providing incentives for doctors to request that their patients trial medications, and thus we did not endure health risks associated with dangerous medications. Alternatively, in modern society, we have the knowledge to advise pregnant females to take folic acid and avoid the risks of neural tube defects. In modernity, society is continually drawn into the present through reflexive organisation and constantly forced to anticipate outcomes and assess how things are likely to diverge (Giddens 1991). Risk is an important aspect of trust because it adds another aspect to partial understandings. What or how much is at risk has a substantial influence on a decision to trust.

Given the inherent role of risk in both Giddens' and Luhmann's theories of trust, in addition to social factors this thesis includes risk as a point of investigation for the operationalisation and conceptualisation of trust. The link between risk and trust has been noted in applied research but remains in need of further investigation. For example, theory suggests that risk is a major factor in trust and it is well understood that risk is inherent in medical decisions. However, it is unclear as to how much influence risk has on trust. For instance, Gilson (2003) suggests that trust in providers may matter less in acute illnesses, which suggests that the amount of risk inherent in a medical situation has a bearing on a patient's decisions to trust. Risk, SES, and other social factors are being investigated in this thesis as Gilson (2003:1459) suggests 'the importance of trust within this relationship [doctor–patient] will vary in relation to the perceived risks associated with the illness, the degree of patient discretion in utilisation and differences in patient circumstances such as their education, sophistication and access to information' (Mechanic 1998a; Mechanic and Meyer 2000). This thesis addresses this gap in knowledge by delving into the extent to which risk plays a role in patient trust.

While Luhmann does not acknowledge the idea of 'expert systems', he does discuss the use of social systems and personal systems as means of reducing complexity (Meyer, Ward et al. 2008). Luhmann's central thesis around the move to modernity is that social and personal systems strive to reduce complexity. For Luhmann, trust is vital in interpersonal relations but participation in functional systems such as the political and economic systems is no longer a matter of personal relations (Luhmann 1988). The relationship that individuals have with larger social systems (medical, judicial, government) requires our confidence but not our trust. As modern society increases in complexity (technology, communication, information, knowledge), systems that require more confidence as a prerequisite of participation have been

generated (Luhmann 1988). Modern life depends on contingent and changeable structures. For example, the government constantly implements changes that impact on the entirety of the nation it governs. These systems are simply too complex to factor in all possible outcomes and expectations. There are many occasions in which individuals are unable to trust, unable to factor in all possible options and risks. Individuals can only feel unhappy or complain about negative outcomes (Luhmann 1988). If they were to trust and attribute blame internally, they would constantly be disappointing themselves. Rather, if they have confidence in the government rather than trust, any negative outcome or blame is attributed to the government.

As noted above, Giddens discusses how we rely on systems of expert knowledge but we recognise that they cannot adequately predict the future, and therefore we rely on trust to fill the 'partial understanding'. While this has led Giddens to state that trust operates on an individual level (trust is built and sustained in interpersonal relationships), Luhmann takes a different approach and argues that trust is seen as both an outcome of, and response to, increasing complexity in society. The complexity and uncertainty inherent in society means that we cannot adequately anticipate the future; trust allows us to behave as though we can. Individuals have come to depend on learning and confirming trusting relationships between the boundaries of internal systems and the external environment (Luhmann 1988). For instance, Luhmann would argue that an individual can learn to trust healthcare professionals because they are part of a trusted external system – the medical system – regardless of whether they have ever met the doctors or know anything about them terms of demeanour or personality. Alternatively, they may have learned to trust between the boundaries of systems and believe that both the medical system (and systems that influence the medical system, for example, the political system) and the doctor will operate in their best interest. This approach differs from Giddens. Although Giddens also suggests that the root of trust lies in the abstract system, he argues that trust lies in the representative of the systems via access points. The contradiction lies in Giddens' argument that trust must be initiated in the healthcare professional before an individual can have trust in the medical system, whereas Luhmann would argue that trust must occur in medical system before one can have trust in the representatives of the social system (healthcare professionals).

Giddens' (1991) argument that, in modernity, society is continually drawn to the present through reflexive organization and is constantly forced to anticipate

outcomes and predict how things are likely to diverge is problematic. This thesis challenges the practical application of this theory. Giddens argues that modern individuals have become sceptical about modern institutions (such as science); that they are no longer simply accepting the judgements of experts but rather, trust in modernity must be worked on (Giddens 1991). However, in reality, numerous factors including new communication technologies and advances in knowledge transfer have significantly altered the landscape in which individuals question the judgment of experts, making Giddens' argument flawed (Meyer, Ward et al. 2008) as he does not take into account the factors affecting individual reflexivity.

There are a number of factors that Giddens does not sufficiently address when arguing that all modern individuals make the reflexive choice to trust. For example, as noted earlier there are vast gaps between the information rich and the information poor (Elliot 2002); and individuals who are information poor lack the resources for questioning experts and therefore, are not making a reflexive choice to trust. The information poor cannot utilise all the available resources for decision making (lack of information or access to information) and may find themselves further disadvantaged and marginalised in a new world order of reflexive modernisation (Elliot 2002). Ward (2006) discusses stratified reflexivity which suggests that reflexivity does not transcend the inequalities or differences created by social stratification, such as sex, age, social class, ethnicity, nationality, and so on. Giddens does address increasing societal complexity as a result of modernity but he does not address the interdependence it creates; in situations where there is a lack of information, the vested interests of the dependent individual are vulnerable to other actions. In turn, an individual's decision to trust may not be the result of reflexive decision making but rather his or her dependence on an individual or institution. Interdependence, in situations where there is a lack of information, implies more dependency and less reflexivity or self-sufficiency. Institutions are necessary and must function effectively in the context of societal interdependence in spite of distrust. The vested interests of the dependent individual are thus vulnerable to the actions of others (Bluhm 1987). Within healthcare, the information rich may have the means (wealth and/or knowledge) to investigate alternative therapies or seek forms of self-healing when they distrust their doctor. Conversely, the information poor may not have access to similar information, and may have no choice but to depend on their doctor for medical advice.

Modernity has been also been investigated in applied research. In modern society, patient trust in healthcare is being challenged by social developments (Scambler 2002; Crawford 2004) that have led to increased patient autonomy and access to medical information (via potentially unreliable sources) (Tarn, Meredeth et al. 2005). This in turn has led to a decline in levels of trust in healthcare that has been highlighted in numerous empirical studies (Mechanic 1996; Birungi 1998; Mechanic 1998a; Davies and Rundall 2000; Gilson 2003; Goudge and Gilson 2005; Russell 2005; Gilson 2006). The apparent decline is rooted in a number of societal changes that have affected trust on two levels; in healthcare and also the trust relations between medical professionals and lay individuals (Anon 2006). As noted in the introduction, this may be linked to broader epistemological challenges about the authenticity of knowledge (Williams 2000; Williams and Popay 2001; Popay, Bennett et al. 2003), decreasing confidence in the power of science (Wynne 1992; Wynne 1996; Wynne 2001; Irwin and Michael 2003), increasing individual and societal reflexivity (Giddens 1994), and the capacity of experts to deliver to us control over our bodies (Scambler and Britten 2001; Crawford 2004).

Several factors have been identified as contributing to the decline in trust, including increased public awareness of unethical research (Charon 2001; Armstrong, Ravenell et al. 2007) and fraud and abuse within the medical system (Mazor, Reed et al. 2006; Armstrong, Ravenell et al. 2007). For example, Lupton (1997a) argues that the dominance of healthcare professionals has been diminished by a loss of patients' trust. Lupton suggests that this is the result of increased lay knowledge. This shift has been fuelled by an increase in lay access to information and technology but also by the consumerist approach to medical care (Pescosolido, Tuch et al. 2001). Some patients now seek more control over their bodies and how they receive their care because they are consumers of healthcare, playing a role in their medical decisions and questioning the authority of the professional (Mechanic 1998a). A recent shift in the imbalance between citizens and dominant professionals has initiated lay recognition of the accessibility of healthcare information and forms of self-help. As noted in relation to doctor–patient interaction, previously doctors were often viewed as paternalistic, whereas in the present day patients are no longer solely guided by expert advice. Parsons (1951) suggested that lay people accepted the authority of the paternalistic doctor and were unquestioning. However, this approach to viewing medical professionals has shifted and the authority of the doctor has declined (Calnan and Sanford 2004). A proportion of the lay populace are instead informed, autonomous patients (Kraetschmer, Sharpe et al. 2004)

seeking to take back control over their own lives. Control has been reclaimed by individuals through the rejection of certain aspects of technology (e.g. the growth of complementary and alternative medicine) or through taking matters into their own hands (for example, self care via available information systems) (Giddens 1991). Pertinent to this thesis is the idea that this shift has led to a decline in patient trust.

While it has been noted abundantly that modern developments have led to increased patient autonomy and reflexivity with regard to medical decisions, more research is needed to investigate the factors affecting reflexivity and patient autonomy. As suggested in the critique above of Giddens' theory, reflexivity and agency are affected by a number of social factors that are not accounted for. This is also the case with patient autonomy and reflexivity in the choice to (dis)trust healthcare professionals. While there have been a number of applied studies addressing the social factors affecting patient trust (Mechanic and Meyer 2000; Mainous III, Baker et al. 2001; Thom, Kravitz et al. 2002; Calnan and Sanford 2004; Armstrong, Ravenell et al. 2007), to the researcher's knowledge no studies have addressed the combined influences of social factors (socio-economic status and risk specifically) on patient (dis)trust. Shapiro (1987:652) suggests that 'to argue that principals in complex society have no choice but to trust is far too simple. Indeed, there is enormous variability in the extent to which, and the conditions under which, they exercise that choice' (Shapiro 1987). A number of factors affect our ability to act as reflexive agents; level of dependency, social/cultural networks, individual weight in variables of trust and risk, as well as numerous other factors that are beyond the scope of this thesis. It is for this reason that the theoretical model behind this research design includes social factors (socio-economic status, sex, age) as variables that may affect an individual's decision to (dis)trust.

2.35 Conceptualisations of trust

Giddens states that trust rests on a vague and partial understanding of the matter in question, for example, medical advice (Giddens 1990). Trust differs from decisions based on rational choice because trust involves an element of uncertainty. In order for someone to trust (rather than base a decision on rational choice) in people or abstract systems (the medical system, the legal system), their decision must combine good reason (from past experience) with a further element that satisfies their 'partial understanding' (Giddens 1991). This is similar to Simmel's notion of a

'leap of faith' (Mollering 2001), which brackets[6] out ignorance or lack of information (Giddens 1991). Giddens suggests that the 'leap of faith' may be linked to a quasi-religious element or ontological security, drawing upon society's sense of safety in the continuity and order of the world and its events (Giddens 1991). He describes it as a commitment to something other than just cognitive understanding (Brownlie and Howson 2005b). Trust is only required where there is ignorance; there is no need to trust in a situation of complete knowledge (Giddens 1991). In other words, Giddens argues that we place trust only in situations of uncertainty. If past experience or good reason satisfies our understanding, we have no need to trust. Rather, we have confidence that is based on rational choice. For instance, if an individual presents at hospital with a heart attack and requires the assistance of a cardiologist, he or she may have confidence in the cardiologist's ability because of previous visits to the given cardiologist (experience leading to good reasoning). In this case, the individual is likely to place trust and choose to seek assistance from this cardiologist. However, Giddens would argue that for the individual to trust the cardiologist, a further element is required that presumes a leap of 'faith' or 'ontological security'. Not only is the person basing their trust on their experience, they are basing it on further element that satisfies their partial understanding – a 'faith' in unknown variables such as the cardiologist's level of experiences/education, and their knowledge or expertise in the condition of the patient. If the patient had complete knowledge of the cardiologist's ability, their decision to consult the particular cardiologist would not be based on trust, but rather, rational choice.

Luhmann addresses the concept of trust in terms of its function in society (Luhmann 1988), which fits with his overarching structural functionalist theory. He argues that trust is the glue that holds everything together in social life because it reduces the complexity of how individuals think about the world around them, providing them with the capability to act and make decisions (Pearson, Crane et al. 2005). The decision to place trust or distrust reduces complexity in society because both decisions function as ways to pursue individual actions rationally (Luhmann 1979). For instance, if an individual makes a conscious decision to trust in their government, they can pursue their decision to vote based on rational choice. For a citizen who is constantly reliant upon decisions regarding systems or institutions that

[6] Giddens often uses the term 'brackets'. Bracketing in this sense means to remove or compensate for what we are lacking.

are run by the government, placing trust in their government reduces the complexity of subsequent decisions. If an individual trusts their government, they are likely to trust in the systems, institutions, and policies controlled by government. Luhmann argues that systems (social systems[7]) need to reduce complexity in order to function properly, and with increasing complexity the need for assurances through trusting relationships grows accordingly (Borch 2005). Put simply, with regard to the above example, as the government sets new policies and regulations that are often beyond the understanding of the lay person, the need for trust grows. As complexity increases, the need for trusting relationships develops.

Luhmann (1979:6) argues that trust is a medium of interaction between modern society's systems, and those systems' representatives: 'Trust occurs in a framework of interaction which is influenced by both personality and social systems, and cannot be exclusively associated with either.' Therefore, trust may be understood in a multidimensional sense (Brown 2008) and we may view (dis)trust as layers of an onion (Ward 2006), with trust in one social system being highly dependent on trust in other social systems and psychic systems (Luhmann 1979). Consequently, trust in individuals is highly contingent on trust in a variety of social systems (Meyer, Ward et al. 2008).

In addition to providing a conceptualisation of trust, Luhmann also makes a semantic distinction between trust, familiarity and confidence. Luhmann argues that as our society moved towards modernity, social and personal systems were forced to reduce complexity. Luhmann regarded familiarity and trust as complementary ways of absorbing complexity (Luhmann 1988), and as being linked to one another, with trust presupposing familiarity (Luhmann 1979). Familiarity is based on experience that is represented in history. Similar to trust, familiarity reduces complexity because it excludes unanticipated action (Luhmann 1979).

The notion of time is a central concern to Luhmann in relation to trust and familiarity, and he outlines the problematic relationship between trust and time: 'To show trust is to anticipate the future. It is to behave as though the future were certain' (Luhmann 1979:10). Giddens and Simmel deal with this problem by linking trust with leaps of faith or blending ignorance and knowledge. Whilst Luhmann

[7] Luhmann, a social systems theorist, refers to what he terms social systems. Examples of social systems are the economic system, the political system, the medical system etcetera.

acknowledges the unavoidable contingencies in the decision to trust, he shows how individuals and social systems limit the horizons of trust by reducing the complexity of their worlds through the function of familiarity.

Although they differ, trust and familiarity belong to the same family of self-assurances (Luhmann 1988). When we are familiar with something, we base the future events solely on the past. Although trust also requires history to provide reliable grounds, it goes beyond past information it receives and acknowledges the risks associated with decisions made for the future. While familiarity is based solely on past experiences, trust takes into account both past experience and associated risks.

While trust is a solution for problems of risk, it has to be achieved within a familiar world. When the level of familiarity changes, the development of trust in human relationships is affected (Luhmann 1988). Luhmann focuses on familiarity as an unavoidable fact of life. In order to understand trust, we have to take familiarity into account (Luhmann 1988). Whether or not a person places trust in future events is extremely subjective because each individual has a different level of risk-seeking/risk-avoiding, trusting or distrusting. One of the risk calculating mechanisms that people use is familiarity (Luhmann 1988).

Luhmann also distinguishes trust from confidence. Both trust and confidence refer to expectations that may lapse into disappointment, however, they differ in perception and attribution (Luhmann 1988). We cannot live in a world full of contingent events without at least some expectation or we would always live in a world of unmanageable uncertainty (Luhmann 1988). Trust presupposes a situation of risk that can be avoided, but only if we are willing to forego the associated advantages that successful trust may grant (Luhmann 1988). Trust requires some element of risk and is only possible in a situation where the likelihood of negative outcomes may be greater than the positives that successful trust awards (Luhmann 1988). If an individual chooses one action in preference to another, despite the possibility of being disappointed, they are trusting. However, because the decision to trust was a choice they made, any disappointment is attributed internally (Luhmann 1988). Confidence occurs when individuals do not consider alternatives and rely on their expectations. They have confidence that their expectations will not be disappointed. In the case of disappointment, they attribute blame externally because they did not choose, but expected, and therefore the disappointment was not a result of their

erroneous trust (Luhmann 1988). For example, if we have confidence in a transplant system that is delivering an organ, but the vehicle that is transporting it runs late, we do not feel betrayed or foolish for trusting but are disappointed that the system failed. In many ways, Luhmann's distinction between trust and confidence is similar to Giddens' ideas of reflexive modernisation, whereby the act of trusting becomes a conscious, reflexive act on the part of the agent.

Luhmann argues that if there is no risk considered, there is confidence or expectation rather than trust (Luhmann 2005). The awareness of risk is what moves an individual's decision from the assumption of confidence to one where trust is required (Luhmann 1988). He argues that individual trust takes into account both past experience and the associated risks involved in the decision to trust, whereas confidence occurs when no alternatives are considered and decisions are based solely on expectation (Luhmann 1988).

Luhmann's and Giddens' theories of trust remain difficult to operationalise. Both theorists explain the driving force behind why people trust in situations of uncertainty but their explanations remain difficult for empirical investigation. Along with other prominent trust theorists (Simmel, Fukuyama) both discuss trust in situations where there is a shortfall of information. As noted earlier, for Giddens the shortfall is compensated by a leap of faith which can be understood as intuition; an act of knowing or sensing without the use of rational processes. For Luhmann, trust always extrapolates from available evidence. When the available information is not adequate to make a rational decision, Luhmann argues that individuals weigh the risk(s) involved in their decision to trust against the potential positive outcomes that result when trust ensues. Luhmann (1979:26) argues:

> *Although the one who trusts is never at a loss for reasons and is quite capable of giving an account of why he [sic] shows trust in this or that case, the point of such reasons is really to uphold his [sic] self-respect and justify him [sic] socially. They prevent him [sic] from appearing to himself [sic] and others as a fool, as an inexperienced man ill-adapted to life, in the event of his [sic] trust being abused. At most, they are brought into account for the placing of trust, but not for trust itself. Trust remains a risky undertaking (Luhmann 1979).*

Luhmann acknowledges that trust relies on some form of illusion (or operation of will) necessary to overcome a shortfall of information. However, his explanation of

this remains fairly abstract. The way in which Luhmann describes the operation of will makes it difficult to operationalise.

While it is recognised that a gap between knowledge and ignorance exists, the explanation of this gap remains in need of empirical investigation. In understanding why people place trust, whether based upon experience, knowledge, or faith, there is potential to gain insight into how to encourage trust in health systems. However, this challenge may also be looked at as one that is out of the realm of sociology; a challenge of an epistemological or psychoanalytical nature. Empirical literature poses the argument that trust is quantifiable (Anderson and Dedrick 1990; Thom, Ribisl et al. 1999); however, the question remains as to whether we can ever really measure and bring to view what constitutes the bridge between knowledge and ignorance. While it may be difficult ever to really understand why people trust, this question remains one of importance for understanding the operationalisation of trust. As an effort to understand why people trust, this thesis investigates the role of experience in an individual's decision to trust. This theoretically informed empirical research may provide insight into one of the ways in which people choose to trust.

Another area of investigation is based in Luhmann's conceptualisation of trust. Luhmann suggests that trust is only possible in a situation where the negative outcomes (risks) may be greater than the positives that successful trust awards (Luhmann 1988). As noted above, he argues that when the available evidence is not sufficient, risks are weighed against the potential positive outcomes. He also notes that whether a person places trust in a future event is highly subjective, that individuals have different levels of risk-seeking/risk-avoiding behaviours (Luhmann 1988), and that risk may be seen as a possibility for something positive. As a result, trust also rests on an individual's motivation to take risks (Luhmann 1990). For example, a cancer patient may choose to take a risk by not following a doctor's suggestion to follow a line of treatment. Their motivation may be that they do not want to endure the side effects of treatment and would rather risk further progression of the cancer. Knowing that people do weigh and value their health differently is important when investigating what affects an individual's decision to trust. However, it is difficult to gauge and predict how people weigh the risks and benefits associated with their health. It is for this reason that the theoretical model behind this thesis design includes level of risk as a variable to address when investigating the nature of trust. If trust is indeed affected by the level of risk involved

in an individual's decision to trust, it is important to determine to what extent it influences their decision.

The dilemma regarding the conceptualisation of trust remains a theoretical and empirical area of investigation and is something to be taken into account when evaluating current literature. It has been noted abundantly in the literature that trust is a complex phenomenon around which there are many definitions and theories. There is no commonly shared understanding of what trust means (Hall, Dugan et al. 2001) and the concept of trust has yet to be universally defined within and across disciplines (Baier 1986; Mollering 2001; Crease 2004; Goudge and Gilson 2005; Brownlie and Howson 2005b; Schoorman, Mayer et al. 2007). There has been an increase in trust literature in healthcare, especially concerning interpersonal trust. As noted in the introduction, this is reflected in the growing awareness of trust both in research and by policy makers (Taylor-Gooby 2008). However, the diversity of definitions, conceptualisations, and theories of trust make it difficult to handle with empirical research (Misztal 2001) and although trust is used both in everyday language and in scientific research, the concept of trust remains elusive (Hupcey, Penrod et al. 2001). Indeed Knight, Holdsworth et al. (2007:795) state that 'trust is a concept that is generally understood by the public, yet academics in several disciplines have devoted much effort to defining it' (Knight, Holdsworth et al. 2007). Given the varied use of the word in everyday language, it may be argued that lay individuals have differing understandings of the word trust. It has been suggested that people equate the terms trust, faith, and confidence, for example (Kent 1998). However, a wealth of literature around trust supports the argument that academics within sociology consistently devote much effort to determining how trust should be defined, theorised and conceptualised.

The confusion of the conceptualisation may be problematic for recent empirical findings investigating (dis)trust in healthcare. For example, while applied findings suggest that trust in health professionals is declining, other literature suggests that it is trust in the system that is declining, not trust in the professional. Calnan and Sanford (2004:92) suggest that 'the empirical evidence about the extent of the decline in trust in health care appears to be limited and inconsistent.' After completing a critical analysis of the current literature, this thesis purports that the inconsistency may be the result of a blurred conceptualisation of interpersonal and institutional trust.

The blurring of interpersonal and institutional trust is evident in applied empirical findings. For example, Evetts (2006) suggests that trust in professionalism has been influenced by discourses such as medical negligence and malpractice scandals. Evetts (2006) suggests that the decline in trust in professionals has formed a new form of professional accountability in practice standards and guidelines, which infer trust in a system rather than in individuals. Kuhlmann (2006:608) supports this, arguing that:

> *Physicians, health professionals, alternative practitioners, patient groups, the Internet – compete for trust in their knowledge and information systems... there is a shift from trust in individual qualifications and embodied practices to trust in the information obtained from scientific-bureaucratic measurements, assessments and data detached from the body (Kuhlmann 2006).*

However, there is opposing applied literature which argues that trust in healthcare as a system is declining, but that trust in medical professionals still seems to be strong (Calnan and Sanford 2004; Dew, Morgan et al. 2007). This is supported by Hall (2005:159) who argues that trust in professionals is not diminishing because trust in doctors is resilient 'both in its ability to withstand various assaults, and in its glacial resistance to attempts to alter its course.' The blurring of the conceptualisation of interpersonal and institutional trust is apparent in studies that discuss distrust in the medical profession as a whole because it captures distrust at an institutional level, rather than an interpersonal level (Pescosolido, Tuch et al. 2001; Hall, Camacho et al. 2002; Schlesinger 2002; Hall 2005).

It is possible that the blurring of the conceptualisation of trust may partially explain the conflicting arguments between academics discussing whether trust is indeed declining. Gilson (2003) offers explanations of different types of trust and how trust is defined within and across disciplines. The author goes on to say that despite the diversity in views of what trust is/is not, there is agreement that different forms of trust exist side by side. However, what remains unresolved is how they exist side by side. It has been suggested that research needs to examine the interrelationship between interpersonal and institutional trust – how one influences the other and vice versa (Calnan and Rowe 2006). Similar to the theoretical gap, the interplay or interrelation of interpersonal and institutional trust needs investigation if trust is theorised to be multidimensional (Meyer, Ward et al. 2008). The relationship between the two types of trust remains to be fully understood. The findings from

international literature are inconsistent and it remains uncertain how trust is conceptualised within healthcare. It is for this reason that this thesis investigates both interpersonal and institutional trust in healthcare. The investigation is a means of determining whether the lay population does distinguish between the two types of trust and if they are indeed conceptualised differently.

It is evident that there is a blurring between the conceptualisation of interpersonal and institutional trust. However, the question also remains as to whether interpersonal and institutional trust can independently be viewed as one dimensional. For example, do the factors affecting interpersonal trust in a general practitioner differ from the factors influencing trust in a cardiologist? There is evidence from the United States suggesting that nearly half of all medical visits are to specialists, which affects the nature of the patient–doctor relationship (Keating, Gandhi et al. 2004). Luhmann argues that trust only exists in conditions of familiarity, which indicates that interpersonal trust could not exist between patients and specialists they are seeing for the first time. Keating, Gandhi et al (2004) surveyed American patients about their trust in specialists and found that participants have high levels of trust in specialists after an initial visit. Their findings suggest methods to improve doctor–patient interactions in medical encounters in the United States. What remains unresolved is whether Australian patients trust in specialists or medical professionals who they have never seen before. Whether familiarity is a prerequisite for trust in Australian patients may be determined by investigating trust in people with CHD who have been put in unfamiliar situations when arriving in emergency departments or being referred to a specialist.

2.36 Trust as a function in (and for) society

In this section of the chapter, aspects of the previous discussions are tied together by exploring the ways in which Giddens and Luhmann see trust as a function in (and for) society. In essence, Giddens regards trust as a response to an increasingly reflexive society, whereas Luhmann regards trust as both the outcome of, and function for, responding to an increasingly complex society.

This section focuses on Giddens' ideas about the function of trust in the structure–agency dialectic because issues of reflexive modernisation have been covered extensively in the previous discussion. Giddens argues that trust acts as a medium of interaction between modern society's systems and the representatives of those systems (Giddens 1991). This is in keeping with his overarching structuration theory.

The grounds for this interaction are referred to as access points; the meeting ground for what Giddens terms ‘faceless’ and ‘facework’ commitments (Giddens 1990). Facework commitment is dependent on the demeanour of the ‘expert’. In health systems, this role is fulfilled by the doctor, or other health professionals. Their level of professionalism, mannerisms, and other aspects of their personality affect our impression and expectations of them. Alternatively, faceless commitment is the perceived legitimacy, technical competence, and ability of the ‘expert system’. With regard to healthcare, the expert system would be the medical system. As stated previously, Giddens (1990) suggests that trust is sustained through interpersonal relationships which he termed facework commitments – trust in the doctor is required in order to have trust in the medical system. Giddens uses the term ‘access point’ to identify the meeting ground in which the individual is seen to represent the social system (Giddens 1990). For example, an access point may be a doctor’s surgery where the doctor is seen to represent the medical system: ‘Although everyone is aware that the real repository of trust is in the abstract system, rather than the individuals who in specific contexts ‘represent’ it, access points carry a reminder that it is the flesh-and-blood people (who are potentially fallible) who are its operators’ (Giddens 1990:85). Put simply, the key component of Giddens’ theory as it relates to this thesis is the argument that institutional trust presupposes, and is determined by, interpersonal trust (see Figure 1). For instance, Giddens would argue that we must first have interpersonal trust in our healthcare professional (who represents the system) in order to have trust in the healthcare system.

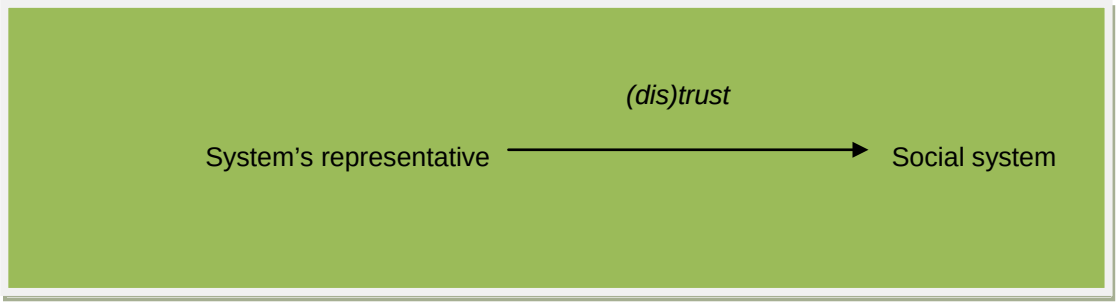

Figure 1: Giddens—An individual’s trust in the system’s representative is imperative before the individual can trust the social system

As discussed earlier, for Luhmann trust is seen as both an outcome of, and response to, increasing complexity in society. Individuals have come to depend on learning and confirming trusting relationships between the boundaries of internal systems and the external environment (Luhmann 1988). For instance, a patient can learn to trust a surgeon (who is part of an external system – the medical system) who they have never met and do not know anything about in terms of demeanour or personality. However, they may have learned to trust between the boundaries of systems and believe that both the health system and the medical professional (the surgeon) will operate in their best interest (Russell 2005). The differentiation of the approaches to trust/distrust (internal versus external) is rational from the point of the system because it helps it to preserve the higher level of inner order, in comparison to its external environment. If the patient did not trust the surgeon but instead asked the neighbour who they trusted, but who is a pilot, to do their surgery, complication and chaos would result and their action would not be rational. The inner order helps to stabilise an extremely complex environment by organising a less complex system-order that is better suited to human capacities for action (Luhmann 1988). Put simply, an individual must have confidence, rather than trust, in order to participate in society. Modernity has created contingent and changeable structures which are too complex for an individual to consider all possible options and risks involved in trusting. However, individuals may learn to trust individual systems, simplifying their decision to trust in other systems (and their representatives) that mutually interact with and are influenced by the trusted system. For instance, an individual may have trust in the government (the political system) which simplifies their decision to trust the economic system as it interacts with and is influence by a system they already trust (the government). This idea is the key component of Luhmann's theory in relation to this thesis. Contrary to Giddens, Luhmann argues that trust in the system is necessary before an individual can have trust in the system's representative (see Figure 2). For instance, Luhmann would argue that in order to have trust in a medical professional, an individual must first have

institutional trust in the medical system as well as the systems it mutually interacts with and is influenced by (the economic system, the education system etcetera).

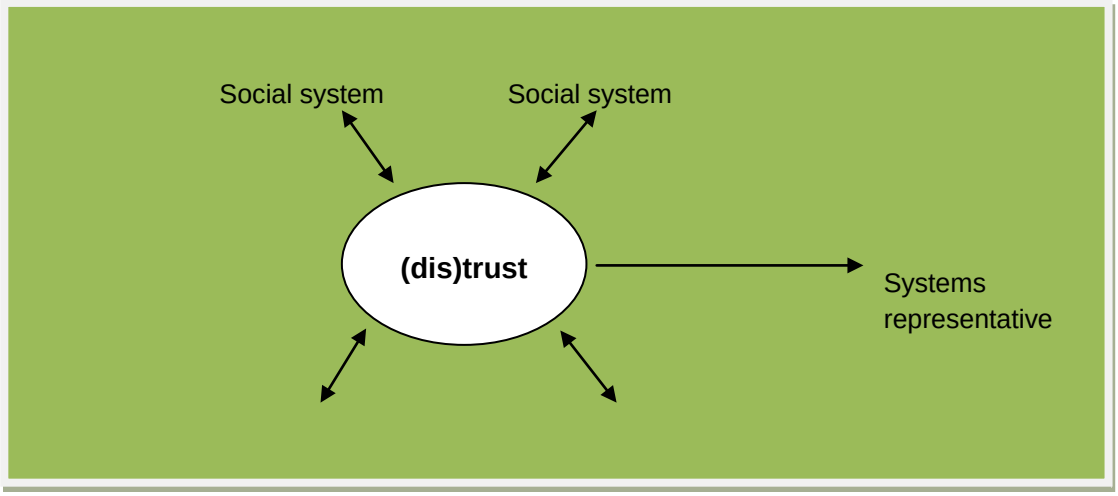

Figure 2: Luhmann—An individual must have trust in the system, and all other systems that influence it, before they can place trust in system's representative

Both Giddens and Luhmann construct trusting relationships as being unidirectional. As previously outlined, in order to fully understand trust, it is essential to address the roles that both interpersonal and institutional trust play in society. Giddens maintains that interpersonal trust is necessary before there is potential for institutional trust (Giddens 1994); trust is linear. Luhmann argues the reverse, that trust in the system is necessary before an individual can have trust in the system's representative (Luhmann 1979). It is interesting that Giddens makes the claim of a unidirectional trusting relationship, given his focus on the structure–agency dialectic which would suggest a bidirectional relationship whereby trust in the individual affects trust in the system, while at the same time that trust in the system affects trust in the individual. Nevertheless, both theories construct trusting relationships as being linear and they ignore the web of interactive relationship which influences individual trust (Meyer and Ward 2008; Meyer, Ward et al. 2008; Meyer and Ward 2009a). By constructing their theories of trusting relationships as linear, both ignore the web of interactive relationships that may influence individual trust: 'Rather than linear, trusting relationships should be understood as a complex web of interaction' (Meyer, Ward et al. 2008:182). Indeed Lewis and Weigert (1985:974) argue that 'an adequate sociological theory of trust must offer a conceptualisation of trust that bridges the interpersonal and systematic levels of analysis, rather than dividing them into separate domains' (Lewis and Weigert 1985).

This idea has been discussed by Ward and Coates (2006) when their findings suggested that the discourse of distrust presented at a number of inextricably linked levels and related to multiple social systems. While participants in their study spoke about a lack of trust in local General Practitioners (GPs), this could not be separated from the distrust in both local and national healthcare and wider social systems (Ward and Coates 2006). However, an extensive literature review revealed that there is little other theoretically informed literature addressing trusting relationships as a multidimensional web. This presented a need for further investigation into the relationships (individual and system level) that affect trust.

Based on the differential operationalisation of the two theories, one of the questions (and initial critique) that drove this research became: 'What is the relationship between trust in an individual and/or the social system(s) that they represent?' A secondary question then became 'What is the direction of that relationship?' Put simply, for someone to trust a doctor, do they first need to invest trust in the medical system (institution) and/or the knowledge base of medicine, or for someone to trust the medical system, do the first have to invest trust in a doctor? The application of theory in this empirical thesis addresses these two questions as a means of determining if trust is indeed multidimensional.

The obvious solution to this dichotomy is that neither of these polarities provides an adequate interpretation, given the dialectical nature of structure–agency. Rather, the solution is an argument for more–less thinking rather than either–or thinking. In different circumstances, trust (or for that matter, distrust) may initially be invested in agents and/or systems, which will necessarily be situational and contextually contingent. Indeed, Gilson (2005:1382) argues that 'trust is rooted in a combination of interpersonal behaviours and institutions that underpin those behaviours.' It is for this reason that the theoretical model behind this research design constructs trusting relationships as multidimensional.

The multidimensionality of trust has been identified in the applied literature. It has been discussed in relation to trust in the system or institution of healthcare, and trust in the medical professional (institutional/systemic and interpersonal trust). The ambiguity with regard to how trust is operationalised in healthcare is a point of investigation because applied research suggests that there is often blurring of the two types of trust discussed in empirical literature. As argued regarding the conceptualisation of trust, this blurring may be the result of the fact that little is

known about how similar or different interpersonal and institutional trust are in reality (Balkrishnon, Dugan et al. 2003). Balkrishnon, Dugan et al. (2003) suggest that patient trust in institutions and individuals may have substantially different characteristics – they might be constructed differently by patients.

Institutional trust in the health system has been theorised to be based on confidence in the health system. Trust in the system is also based on a number of institutional arrangements. These may include training of medical professionals, ethics of practice, and policies, governing controls and standards (Gilson 2003) which may be within the healthcare system itself or in parts of institutions that interact with the healthcare system, such as the education system, government, and the economic system (Luhmann 1979). Interpersonal trust has been theorised to be based on familiarity. Patients prefer to trust a personal doctor who they have seen previously (familiarity) (Anon 2006). A number of characteristics have also been identified as influencing patient trust: competence, honestly, morality, integrity, accountability, empathy, appearance, etcetera (Gambetta 1988; Mechanic 1998a; Thom 2000; Hall 2001; Hall, Camacho et al. 2002; Hall, Dugan et al. 2002; Sams 2002; Fiscella, Meldrum et al. 2004; Russell 2005; Cruess 2006; Silvester, Patterson et al. 2007; Thompson 2007; Meyer and Ward 2008). However, studies investigating trustworthy characteristics have focused on the characteristics that patients find affect their trust in their current doctor; a doctor the patient is acquainted with. This thesis, however, asks participants to identify the characteristics affecting trust in a previously unknown doctor.

As noted above, Giddens and Luhmann differ in terms of their operationalisation of trust. This is consistent in the applied literature. For example, Hall (2005:162) suggests that trust in the medical system is strong, which is why patients are able to trust a doctor the first time they are being treated by him or her; that trust is initiated at a systems level:

> *Without this systemic trust, modern medicine with its team approach and emphasis on specialization would not be possible. This more diffuse form of trust is fostered by institutional and social mechanisms such as licensure and peer review that are not necessarily undermined by isolated acts of misbehavior. Once system trust is established, individual professionals do not have to earn their trust in each instance, and the breach of trust by one individual does not necessarily undermine trust in others (Hall 2005).*

However, opposing literature suggests that trust in a medical practitioner is to some extent shaped by experience and not by initial trust in a system. The suggestion is that trust in medical institutions is often shaped by the media and public opinion (trust in mutually interacting social systems) (Mechanic 1996). Charon (2001) takes an opposing viewpoint by suggesting that, in the United States, there is a contradiction between the medical system governed externally and the internal medical system that has earned public trust. Charon suggests that because of eroding institutional trust, there is ever more responsibility on doctors to create trusting environments.

It is apparent that findings are inconsistent regarding the operationalisation of trust in healthcare. While some literature suggests that trust in the system has a direct bearing on trust in healthcare professionals, other literature indicates that trust in the system is not reflected onto the professional because interpersonal trust develops independently. Russell (2005:1397) argues that 'institutional trust underpins the performance of a health care system because it allows patients to trust providers without any personal knowledge of the health workers representing the system.' However, it has also been argued that it is the face to face encounters that that make or break trust (di Luzio 2006). While interpersonal and institutional trust are conceptualised differently, they are ultimately connected: 'trust in medical care arrangements and in one's doctor are to some degree interdependent' (Mechanic 1998b:662). Gilson (2003) suggests that interpersonal trust in strangers may also be rooted in institutions. For example, when patients are confronted with a doctor they have never meet before, the basis of their judgement on whether to trust the doctor is rooted in whether the patient trusts the accompanying system (the healthcare system or hospital) (Gilson 2003). However, Gilson goes on to say that trust in the hospital or corresponding organisations cannot guarantee interpersonal trust because trust the hospital itself is also part of an overall social system which may not be trusted.

In discussing normalisation and governmentality, Evetts (2006:524) argues that 'Acceptance of the authority of professional experts went together with the consolidation of the authority of states' (Evetts 2006). The interconnection of professional and state authority is of concern in healthcare because the implication is that distrust in the authority of the healthcare system may lead to distrust in the authority of healthcare professionals (Dew, Morgan et al. 2007). Their findings are

substantiated by Calnan and Sanford's (2004:96) suggestion that public trust in the National Health Service (UK) hinges 'on the performance of the provider in terms of levels of clinical competence and their skills in addressing their patients' needs and interests' However, Trachtenberg, Dugan et al. (2005) suggest that patients' views of doctors are, for the most part, independent of their views of the medical system.

There is an apparent interconnectedness between interpersonal and institutional trust in applied research around the operationalisation of trust in healthcare. The concern however, is that the word trust is often used loosely and it is important to understand whether patients differentiate between the two types of trust, interpersonal and institutional. As noted earlier, in order to determine how trust is operationalised we need to understand how the public conceptualise trust. Trust differs for individuals because it can be biologically or culturally institutionalised, developing as the result of social interaction of experience (Thiede 2005). In addition, trust can depend on a number of factors including a person's socio-economic background (Crease 2004). In this thesis, both interpersonal and institutional trust are researched as a means of understanding if, and how, patients differentiate between interpersonal and institutional trust. This research investigates the operationalisation of trust in healthcare as a means of theoretical development.

An additional gap in the applied literature regarding the operationalisation of trust is the lack of empirical research investigating institutional trust in the Australian healthcare system. It has been suggested that the noted decline in trust in healthcare is a factor of the increased prevalence of managed care practices (Mechanic 1996; Mechanic and Schlesinger 1996; Mechanic 1997; Mechanic 1998a; Mechanic 1998b; Mechanic and Meyer 2000; Anon 2006; Armstrong, Ravenell et al. 2007). Additionally, it has been argued that the decline in trust varies according to the values and organisation of a country's healthcare system (Straten, Friele et al. 2002). Findings from a study comparing public trust in England, Wales, Germany and the Netherlands suggest that there is variation in public trust between countries. The health systems in the four countries are organised and financed differently which may account for varying levels of trust (Van der Schee, Baum et al. 2007). The majority of studies discussing the effects of managed care were conducted in the United States of America (USA) where prior to 2010, the system was solely market based. However, it might be argued that an increasingly market-driven healthcare system in Australia may also be leading to increased concern or distrust in both market-driven and public health cover. While there is a wealth of

literature on how systemic structure and organisation affect institutional trust in both the USA and the UK, it is difficult to determine how the organisation of the Australian medical system impacts on institutional trust. To the researcher's knowledge, there have been no empirical studies that investigate institutional trust in the Australian healthcare system. While data from the USA and UK provide insight, the countries differ in terms of their healthcare organisations. The American system is market-driven (Charon 2001) and the British National Health Service is government funded (Britten 2001) while Australia has a combination of the two (Willis, Reynolds et al. 2009). This thesis investigates institutional trust in the healthcare system through qualitative interviews. The interview discussions around institutional trust focused both on the structure of the healthcare system and on the role of influential social systems affecting the organisation, operation, and management of the Australian healthcare system.

2.4 Conclusion

As noted earlier, while social theory provides a useful conceptual framework for exploring trust, there are limitations to its scope and utility in practical, real life situations. A number of theoretical and applied gaps have been identified above and are outlined in brief below.

2.41 Theoretical gaps

#1

Luhmann's and Giddens' explanations of the driving force behind why people trust in situations of uncertainty remain difficult to operationalise. The qualitative component of this research investigates personal experience as a variable to address when investigating the nature of trust. This theoretically informed empirical research may provide insight into ways in which we can operationalise factors affecting why people trust or distrust.

#2

Luhmann's argument regarding the role of risk identified an area of investigation. While individuals weigh the possibilities of risk differently, further research is needed to determine how individuals weigh the risks involved in trust. It is for this reason that risk is investigated in this thesis. The qualitative research has been designed to determine if the level of risk involved in participants' CHD does affect their trust. This

investigation is also a means of researching what motivates individuals to (dis)trust. In addition, the quantitative research investigates the associations between participants' health and their trust in doctors. This may highlight whether individuals with health conditions (risk) are more or less likely to trust doctors.

#3

Giddens argues that modern individuals have become sceptical about modern institutions; that they no longer simply accept the judgements of experts but rather in modernity trust must be worked on and won (Giddens 1991). However, there are a number of factors that Giddens does not adequately address when arguing that all modern individuals make the reflexive choice to trust. It is for this reason that qualitative and quantitative components of this research design include social factors (socio-economic status, sex, age) as variables that may affect individual levels of agency and reflexivity in the decision to trust.

#4

Both Giddens and Luhmann describe trusting relationships using linear constructs. As previously outlined, in order to fully understand trust, it is essential to address the role that both interpersonal and institutional trust play in society. It is for this reason that the theoretical framework behind this qualitative and quantitative research design constructs and investigates trusting relationships as being multidimensional. In addition to discussing interpersonal and institutional trust with interview participants, the quantitative data was analysed to investigate associations between interpersonal and institutional trust.

2.42 Empirical gaps

#1

Many scholars take the concept of trust for granted and concern themselves only with its consequences (Mollering 2001). A significant amount of the empirical work that has been conducted on trust in healthcare has been atheoretical, only dealing with the conceptualisation and description of trust. This thesis applies theoretically driven qualitative and quantitative methods to investigate trust in healthcare as a means of conceptualising trust and (re)developing/extending social theories of trust.

#2

Findings from empirical research on trust in healthcare are conflicting. This suggests that there may be a blurring of conceptualisations of interpersonal and institutional trust. This thesis investigates both interpersonal and institutional trust in healthcare through qualitative and quantitative methods as a means of determining if lay people distinguish between the two types of trust and if the concepts are indeed conceptualised differently.

#3

A gap remains in the operationalisation of trust with regard to social stratification. The theoretical model employed in this research design includes risk, reflexivity, and social (socio-economic status, sex, age) as variables that may affect an individual's decision to (dis)trust.

#4

There remains a gap in the literature regarding the factors patients find trustworthy in doctors they are unfamiliar with. The qualitative research employed in this thesis asks participants to identify the characteristics affecting trust in a doctor the participant has never seen before. In addition, respondents in the quantitative survey are asked to indicate the extent to which certain characteristics would influence their trust in a doctor they had never seen before.

#5

Ambiguity remains with regard to how trust is operationalised in healthcare. The qualitative component of this thesis investigates patient trust both in individuals and institutions as a means of determining how trust in healthcare is operationalised. In addition, the quantitative component investigates associations between trust in doctors and trust in other groups of individuals/institutions as a means of determining how trust is operationalised.

#6

There is a lack of empirical research investigating institutional trust in Australian healthcare. The qualitative component of this thesis investigates institutional trust in the healthcare system. Discussions about institutional trust focus on both the structure of the healthcare system and the role of influential social systems affecting the organisation, operation, and management of the Australian healthcare system.

2.43 Conclusion

A central gap across all literature is the lack of understanding regarding the operationalisation of trust. Giddens and Luhmann have been influential in the pursuit of understanding trust. Together, they have made significant contributions to the understanding of the complex trust relationships that exist between and within different social groups, systems, and levels. Although both are pure theorists who never tested their work empirically, a number of researchers have applied their theories in empirical trust research. However, in reviewing the theoretical and empirical trust literature, it is clear that neither Giddens nor Luhmann alone provides a theory that can be applied as a means of investigating how and why trust is (re)built and sustained in society (Meyer, Ward et al. 2008). As a result, this thesis is framed by a critique of their theories and investigates the operationalisation of trust by researching interpersonal trust, institutional trust, familiarity, experiences, perceived risk, and social factors as influential components of the social theory of trust. This investigation aims to provide a more complete perspective of trust that may help to assess the effectiveness of trusting relationships in health systems.

Trust provides an important lens through which we can view significant relationships within health systems because it highlights dimensions of these relationships that are often unrecognised while potentially providing new insights into how to improve health system management (Gilson 2005). However, current theoretical trust literature offers differing accounts of how trust may operate in social systems. It is important to understand trust relationships that have an impact on the functioning of a health system before we can work on (re)building trust in the system (Hardin 2006).

The aim of this thesis is to utilise the empirical data from this research to understand and model Giddens' and Luhmann's social theories of trust. As a means of realising this aim, this thesis investigates the gaps in current social theories of trust through qualitative and quantitative methods. The qualitative empirical research on trust in healthcare systems adds to knowledge regarding the nature of trust. The quantitative empirical research on trust in organisations adds to knowledge regarding the extent of trust. Both methods are used to promote and contribute to theoretical development. Before moving to the methodology and methods used for this thesis, outlined below are the objectives of this thesis.

2.5 Objectives

The thesis objectives are:

OBJECTIVE 1: To critique current social theories of trust

- *Complete a systematic search of the theoretical literature*
- *Undertake a critical review*

OBJECTIVE 2: To explore the importance of socio-economic status and level of CHD risk as factors in patient trust

- *Recruit and contact participants and respondents*
- *Sample on the basis of SES and CHD risk*
- *Conduct qualitative interviews and quantitative survey*
- *Analyse qualitative data on the basis of risk and both qualitative and quantitative data on the basis of SES*

OBJECTIVE 3: To explore and explain the role of social factors (including experience, sex, age) affecting trust in doctors

- *Recruit participants for qualitative interviews aiming for diversity with regard to age and sex*
- *Include personal experience with doctors as a point of discussion in the interview guide*
- *Analyse data for associations between social factors, personal experience, and trust*
- *Survey a random sample of Australians regarding their trust in individuals and institutions*
- *Analyse data for associations between social factors and trust*

OBJECTIVE 4: To explore and explain the social factors affecting reflexivity

- *Include questions investigating reflexivity in the interview guide and quantitative survey*
- *Analyse the qualitative data for associations between reflexivity with regard to trust in medical advice and the social factors age, sex, risk and SES*
- *Analyse the quantitative data for reflexivity with regard to trust in medical advice, trust in individuals, and trust in organisations/institutions and the social factors age, sex, length of time with current GP, presence of a chronic health condition, overall health, Index of Relative Socio-economic Disadvantage, annual household income*

OBJECTIVE 5: To investigate how lay individuals conceptualise trust

- *Conduct qualitative interviews*
- *Analyse data for lay conceptualisations of trust*

OBJECTIVE 6: To explore the nature of trust and the extent to which trust influences patient compliance with dietary recommendations

- *Analyse interview data using open coding*
- *Determine themes and patterns in the data collected with regard to trust and compliance*

OBJECTIVE 7: To examine the extent of interpersonal and institutional trust in Australia through a national survey

- *Develop a quantitative survey*
- *Distribute this survey nationally using the electronic white pages telephone directory*
- *Analyse data to determine the extent to which Australians trust in doctors, groups of individuals, and institutions*

OBJECTIVE 8: To investigate how trust is operationalised

- *Conduct qualitative interviews*
- *Conduct a quantitative survey*

- *Analyse findings from both qualitative and quantitative data for an association between interpersonal and institutional trust*

OBJECTIVE 9: To understand and model the theories of Giddens and Luhmann based on empirical findings

- *Conduct qualitative interviews*
- *Conduct a quantitative survey*
- *Compile empirical findings from the qualitative and quantitative data*
- *Discuss findings in relation to the theoretical gaps outlined in the literature review including the role of familiarity, social factors and risk*
- *Suggest areas of expansion and extension to the current theory and operationalisation of trust*

Chapter 3: METHODOLOGY

3.0 Introduction

The methodology outlined below has been shaped by the chosen epistemologies of this research. These are: 1. Constructivism, which has informed the qualitative aspect of this thesis; and 2. Positivism, which has informed the quantitative component of this thesis. In addition to providing a detailed account of the methodology of this thesis, a final section of this chapter outlines the research design.

3.1 Methodology

Methodology can be explained as being a strategy or plan of action which shapes our choice of methods. Methodology (and consequently methods) are chosen as a means of obtaining our desired outcome (Crotty 1998). The research aims to understand the nature and extent of trust in people with coronary heart disease (CHD) and society in general as a means of further developing social theories of trust. As previously stated, the chosen methodology for this study was mixed methods theory driven research, which I will refer to as methodological/epistemological pluralism (Popay and Williams 1996; Johnson and Onwuegbuzie 2004; Abend 2008). The qualitative component provided a means of investigating the nature of trust (what meanings do people with CHD give to trust?), and the quantitative a means of understanding the extent of trust (how much do people trust?). Together, the qualitative and quantitative data provided information which led to theoretical development.

Sale, Lohfeld et al. (2002:44) argue that mixed methods is now being adopted 'uncritically by a new generation of researchers who have overlooked the underlying assumptions behind the qualitative–quantitative debate' (Sale, Lohfeld et al. 2002). They, along with Guba (1990) and others, argue that each of the methods is based on particular assumptions concerning ontology, epistemology and methodology (Guba 1990). However, they also offer a solution which supports the argument for the chosen methodology; pluralism in methods can and does occur. Both methods share a common goal of theoretical development in the area of sociology and trust. In addition, two aspects of trust, the nature and its extent, are under investigation. Sale, Lohfeld et al. (2002) suggest that the two methods do not study the same

phenomena because quantitative methods cannot access some of the phenomena that health researchers are interested in and vice versa. This argument underpins the rationale for the present design. The qualitative component aims to study the nature of trust while the quantitative addresses the extent of trust. Both methods of inquiry are necessary to meet the common goal of theoretical development. Indeed Baum (1995:459) suggests that 'the complexities of most public health research requires researchers to draw on a spectrum of qualitative and quantitative methods' (Baum 1995). The goal of using methodological pluralism is not to replace qualitative or quantitative approaches but to draw from the strengths of each approach within a piece of research (Johnson and Onwuegbuzie 2004). The debates regarding methodological/epistemological pluralism revolve around the epistemological, ontological and methodological differences between the two methods. However, Johnson and Onwuegbuzie (2004:16) suggest that rather than find a solution to the different paradigms, pluralistic research should 'use a method and philosophy that attempt to fit together the insights provided by qualitative and quantitative research into a workable solution'. This is precisely the underlying philosophy of this research; constructivism and methodological pluralism provides the opportunity for both qualitative and quantitative research. The research approach should be mixed in a way that offers the best opportunities for answering important research questions (Johnson and Onwuegbuzie 2004). By combining the number of research strategies used within the research, the dimensions and scope of the project may be broadened (Morse 2003).

The methodology links well with the overall epistemological design. Although this research is driven by theory, it does not mean that the preconceptions of the researcher do not have a place in the formulation of the theoretical frame. For example, given the subjectivity present in the analysis of qualitative research, we cannot overlook that in formulating new social theories of trust based on the empirical observations, aspects of the social world that are not subjected to empirical falsification may be taken for granted (May 2001). There is a pragmatic point that needs to be considered; we are still assuming that the theories we derive from the social world are independent of our preconceptions based on our values. It is for this reason that, throughout this research, the claim is not made that the social theories of trust are falsified by the empirical evidence. Rather, evidence is presented that does not support the current theories. Kuhn (1972) argues that theories are not falsified but become the subject of continuous research and that evidence which does not support theories should be regarded as only a temporary

problem towards which future research is directed: ‘normal science means research firmly based upon one of more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice’ (Kuhn quoted in B. Barnes 1991:87). The theory is never falsified because there will always be evidence that both supports and refutes it (May 2001).

Methodology is a solution to understanding the methods of interpretation of findings. As a means of interpreting the data four methods of reasoning were employed in this study: induction, deduction, abduction, and retroduction (Danermark, Ekstrom et al. 1997). Provided below is a detailed account of how each of these modes of inference was applied to the collection and interpretation of the data. This has been provided as a means of acknowledging the ways in which the data were shaped by my analyses and interpretation.

The following outlines the ways in which inductive, deductive, abductive, and retroductive modes of inference were applied in this research. This methodological toolkit has been borrowed from critical realism although critical realism is not the underlying epistemology of this research. Rather, the methodological tools used in critical realism are relatively new and thus provided a gap for methodological inquiry within this thesis. While abduction and retroduction are comprehensive ways of reasoning, both are rarely mentioned in social science method and methodology literature (Danermark, Ekstrom et al. 1997). Using these relatively new methods has led not only to a different way of analysing the data but also to a means of methodological development. However, I acknowledge that the following outlines my interpretation of the concepts and I will discuss how they have been used to inform the analysis of this research.

3.11 Induction

Induction differs to inductive methods. While inductive methods are concerned with different ways of viewing the research process and design, inductive logic is the process of drawing general conclusions from a number of observations. These conclusions are then assumed to be true of a larger number of phenomena than those we have observed (Danermark, Ekstrom et al. 1997). In the case of this research, inductive inference was used in the

quantitative survey as a means of examining the extent to which the Australian population trusts. Danermark, Ekstron et al. (1997) suggest that the most common form of induction occurs when conclusions are drawn about an entire population from studies of a sample of the population. Although useful for this research, inductive inference is criticised with regard to the level of uncertainty associated with it. The fact that the conclusions are based on inductive generalisations is a limitation in that we cannot actually observe the generalisation; we can only infer that the findings occur on a general level. It is for this reason that inductive inference is not the only mode of inference used in this research. While inductive inference is a tool used in this research, deduction, abduction, and retroduction are also utilised.

3.12 Deduction

Deduction is the process of reaching a conclusion based on information from other known truths. The logical validity in a deductive manner can be examined, regardless of the research method being used (Danermark, Ekstrom et al. 1997). Deductive logic is used to test the logical validity of drawn conclusions given that the assumed premises are correct. In the case of this research, the findings are compared and contrasted with the theoretical model that informed the research. This research is deductive in that the theorising has preceded the empirical research and the findings have subsequently functioned to produce evidence to test and confirm or refute social theories of trust (May and Williams 2001). The conceptual and theoretical frameworks have led to the evolution of the structure and study design. These, in turn, informed the method by which participants were sampled and data collected (Green, Willis et al. 2007).

Unlike induction, deduction takes its starting point from universal or general law. We start with universally based assumptions that we know/suppose to be true from basic assumptions (i.e. theoretical or empirical literature) (Danermark, Ekstrom et al. 1997). The strength of deduction is that a logically valid conclusion can be based on certain given premises. However, the limitations are that it does not provide anything new about reality beyond what is already in the premises. Deduction ‘does not give us guidance on how we, from observing particular phenomena, can gain knowledge of the abstract structures and mechanisms that make these phenomena possible’ (Danermark, Ekstrom et al. 1997:84). Thus, there are also findings that

arise which are not part of the theoretical frame which necessitates the use of additional forms of inference.

3.13 Abduction

The crucial difference between abduction and deduction is that abduction shows how something might be, while deduction proves that something must be a certain way (Habermas 1978). For example, while doing the research for this thesis, many of the findings fitted the mould of social theories of trust. The findings did, or did not, prove to be 'trust' based on Giddens' and Luhmann's conceptualisations of trust. However, taking the analysis a step further and making abductive inferences revealed a distinction between what trust might be, other than 'trust'. For example, some of the participants indicated that they 'trust' doctors but I have interpreted their trust as dependence. Fundamentally, abduction differs from induction and deduction in that abduction builds on creativity and imagination as a means of forming associations that enable the researcher to discern relations and connections that are not evident or obvious. This allows the researcher to formulate new ideas, think of something in a different context, and use an ability to 'see something else' (Danermark, Ekstrom et al. 1997).

Unlike abductive logic, neither inductive nor deductive logic can inform discoveries that are not part of a general or universal context or structure. Abductive logic is required to discover circumstances and structures that are not given in individual empirical data because abduction is neither logically rigorous like deduction nor a purely empirical generalization like induction (Collins 1985). Abduction starts with an empirical event/or phenomenon (trust) that is related to a theory (or rule) and leads to a new theory/belief/hypothesis about the event/phenomenon. Abduction is evident in the example above regarding trust versus dependence. This does not mean that the original theories of trust are false, only that the findings suggest a new interpretation of the theories of trust. The findings produce a new frame from which to view or interpret trust: 'the conclusion provides new insight as an outcome of our interpreting or explaining something' (Danermark, Ekstrom et al. 1997:90). Abductive logic is the proof that moves the researcher from one set of ideas to another; from one conceptualisation of an idea to a different or evolved understanding. In social science this (re)interpretation often leads to the formation of a new conceptual framework or a theory (Danermark, Ekstrom et al. 1997). For example, while researching trust, the concept of dependence arose, adding to the

conceptualisation and understanding of trust. Differentiating between trust and dependence adds to the understanding of trust because it helps to identify concepts that may be mistaken for trust (Meyer and Ward 2009b).

Abductive logic has been used in this research because it provides a type of knowledge that cannot be obtained through deductive or inductive generalisations: 'social science analysis is essentially a matter of using theories and frames of interpretation to gain a deeper knowledge of social meanings, structures and mechanisms' (Danermark, Ekstrom et al. 1997:92). Using abductive logic allows the researcher to build knowledge that cannot be reduced to empirical facts and therefore, cannot be tested in line with the same logic of empirical predictions (Danermark, Ekstrom et al. 1997); thinking outside the theoretical frame. Uggla (1994:400 cited in Danermark, Ekstron et al. 1997) suggests:

> *For the use of models in science is not motivated by the ability of these models to empirically describe a pure reality. The strength of scientific models lies instead in their ability to break away from a descriptive discourse and provide a possibility to see something as something else. Since the purpose of using models in science is to explore reality by establishing new relations in it, the scientific model has a heuristic function in producing new hypotheses and so discovers new dimensions of reality (Uggla 1994).*

Habermas (1978) suggests that abduction is a mode of inference used to broaden knowledge and stimulate the research process. It is through abduction that new ideas are introduced. However, abduction may be limited in its utility for defining specific truths, even when used in combination with induction and deduction. Therefore, with regard to this research, abduction will not lead to the complete or finalised theory of trust. However, there is a possibility of increasing the knowledge of trust that can be tested, modified, and used to drive future research. For example, abductive logic has led to the semantic distinction between trust and dependence and thus generated a new concept and avenue for future research.

Abductive logic is in keeping with the overarching epistemology of this thesis in that abductive logic contains an interpretive element. The interpretation of a certain phenomenon can differ depending on the pre-understanding and conceptual starting points of the research (Danermark, Ekstrom et al. 1997). This is similar to the idea of constructivism which argues that meaning is constructed by humans as they engage

with the world they are interpreting; meaning is not discovered but constructed (Crotty 1998).

3.14 Retroduction

Danermark, Ekstrom et al. (1997) argue that in the social sciences retroduction is a mode of inference that is essential. Retroductive inference is the idea that social reality consists of structures and internally related objects but that we can only attain knowledge of this social reality if we go beyond what is empirically observable by asking questions about and developing concepts that are fundamental to the phenomena under study. Retroduction is a means of seeking to clarify the basic prerequisites or conditions of social relationships, reasoning, knowledge, and people's action; knowing the circumstance without which something cannot exist. For example, it is known that in order for interpersonal trust to exist, two or more people need to be involved. Giddens argues that interpersonal trust cannot exist independent of two or more people because interpersonal trust is negotiated between individuals (Giddens 1994). The fundamental element of retroduction is trying to attain knowledge about what internal relations make X (trust) what it is. What makes trust possible? What properties must exist for trust to exist and be what trust is? A way of answering these questions is to address the fundamental conditions or structures involved in trust; what are the concrete and transcendental preconditions for trust?

There are five strategies used to help answer these questions: counterfactual thinking, social experiments, studies of pathological cases, studies of extreme cases, and comparative case studies (Danermark, Ekstrom et al. 1997). However, only two of these strategies apply to this thesis and these will be discussed in relation to it.

Counterfactual thinking

Counterfactual thinking uses our stored knowledge and experience of social reality to explore questions such as 'could one imagine trust without X'? In the case of this research and the theoretical frame, X might be reflexivity (Luhmann 1979; Luhmann 1988). It is this thinking that led to the argument presented in this thesis that there is a semantic distinction between trust and dependence. In the absence of reflexivity or 'choice', dependence rather than trust exists, because trust cannot exist without reflexivity or choice (Meyer and Ward 2009b). Luhmann also uses this mode of

inference in making the semantic distinction between trust and confidence and trust and familiarity (Luhmann 1979; Luhmann 1988).

> *If we consider presence and absence, the necessary and the contingent, the constitutive and the non-constitutive as opposites, we can say that counterfactual thinking is at the same time, dialectic, since in this reasoning we examine something in relation to its opposite (Danermark, Ekstrom et al. 1997:101).*

Studying extreme cases

In order to get the answer to 'how is trust possible' we can study various cases where the preconditions for trust appear more clearly than other cases. It is for this reason that patients with (CHD) were chosen as a vehicle for this research. In order to investigate trust, cases where (dis)trust occurs were required for examination. Given the inherent risk involved in CHD, Luhmann and Giddens would argue that situations of (dis)trust would occur because risk has substantial influence over an individual's decision to trust (Meyer, Ward et al. 2008). Danermark, Ekstrom et al. (1997) argue that there are two cases where the preconditions of trust will appear much more clearly, one of which is extreme cases where mechanisms appear in an almost pure form. Carrying out this as a social experiment involves challenging the conditions of normality. For example, in researching people who have CHD, I have removed certain mechanisms to provoke others to appear. It has been argued that within healthcare, 'the "information rich" may have the means to investigate alternative therapies or seek forms of self healing when they mistrust their physician' (Meyer and Ward et al. 2008:183). In situations of risk (when people with CHD present at hospital in emergency situations), conditions for seeking alternative forms of help are challenged. This allowed me to view cases where the preconditions for trust may differ from trust in a doctor in lower risk situations. Thus, retroductive logic can permit better understanding of hidden structures and mechanisms.

As noted above, the chosen epistemology of this thesis is positivism and constructivism. In addition, I have borrowed methodological tools from critical realism. Four different forms of logic have been used to inform the methods of this thesis: induction, deduction, abduction, and retroduction. The following section outlines how these different forms of logic are played out in the research design and methods.

Each of the four types of logic provides a means of interpretation. Figure 3 depicts the way in which each form of logic has been used to interpret the data.

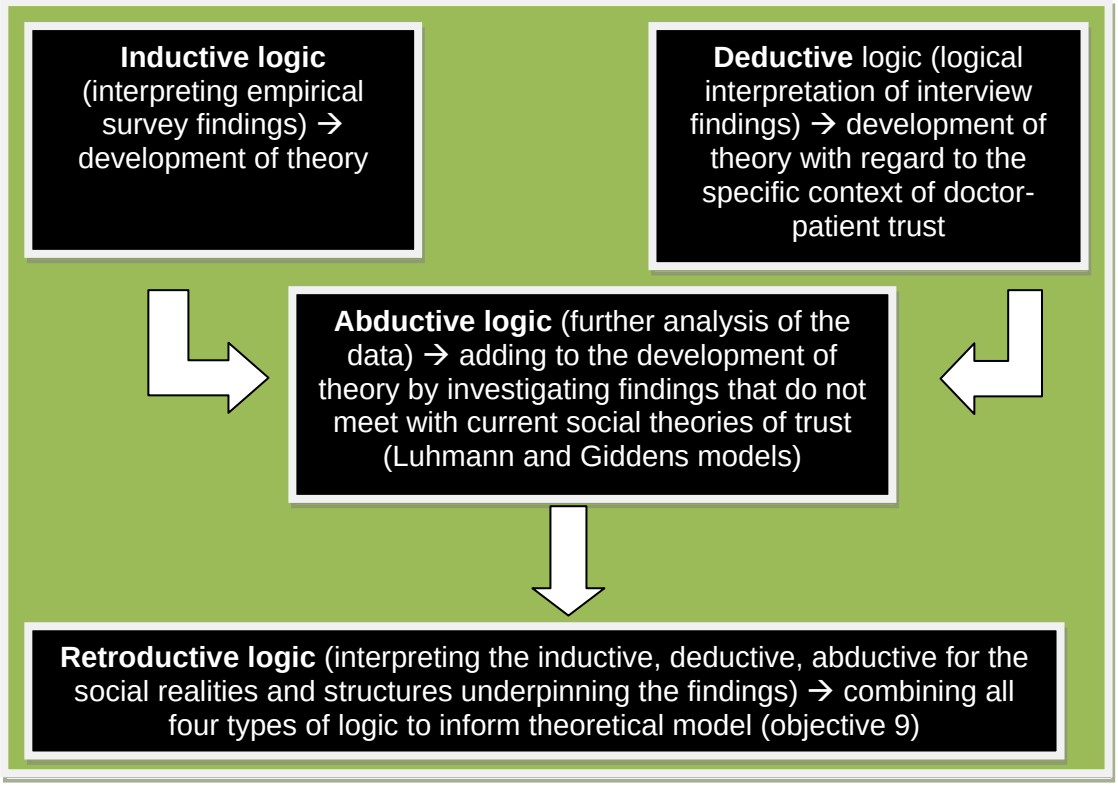

Figure 3: Depicting the application of the four lines of inquiry; induction, deduction, abduction, retroduction

3.2 The research design

Although the methodology for this research is theory driven, it may be seen as sympathetic to critical realism. Abductive and retroductive logic play central roles in the research methodology along with deductive logic. It was for this reason that the six-stage model suggested for explanatory research in critical realism was utilised as a means of guiding the research process. Prior to outlining the methods of this thesis, it is fundamental to demonstrate how each of these six stages has been used as part of the overarching design of this study and consequently has driven the methods of this research.

Stage 1: Description

An important part of the description of the area of study is the interpretation of the researcher and her way of describing the situation. This has been done in the discussion chapter where I acknowledge the assumptions that have been brought to this research, using constructivism as the guiding epistemology. Section 7.0 provides an overview of the research process. This includes acknowledgement of

the limitations of the research and also how much my role as the researcher has shaped the collection and interpretation of the data.

Stage 2: Analytical resolution

In stage two, the phenomena were deconstructed by distinguishing the various components. This has been addressed by critiquing theory and isolating specific areas of interest that may be used for theoretical development (interpersonal trust, institutional trust, social factors, risk, reflexivity) (Meyer, Ward et al. 2008). The interview guide and survey questions outlined in Tables 4 and 7 provide the rationale behind specific aspects of theoretical inquiry. This analysis has provided an argument for investigating specific components of the social theories of trust and relevant critiques.

Stage 3: Abduction/theoretical redescription

The third stage involved abductive logic in order to interpret and redescribe different components/aspects from hypothetical frameworks and theories. Neither Luhmann nor Giddens tested their theories empirically which presented a gap for critique and empirical exploration (Meyer, Ward et al. 2008). An alternative theoretical model has been compared with and integrated with the models of Giddens and Luhmann, by studying their original ideas and relevant critiques (Alexander 1996; Lupton 1997a) as a means of reinterpreting the hypothetical framework. This led to the use of abductive logic, a reinterpretation of empirical findings which led to the conceptualisation of dependence, for example.

Stage 4: Retroduction

As noted above, the process of retroduction was undertaken using counterfactual thinking and extreme case sampling. In addition, different methodological strategies have been employed to look at both the nature and extent of trust as a means of answering questions such as ‘what makes trust possible?’ Both qualitative and quantitative methods have been employed to provide insight into the concept of trust.

Stage 5: Comparisons between different theories and abstractions

Stage five analysis elaborated and estimated the explanatory power described by means of abduction and retroduction. This may mean concluding that one theory, unlike competing theories, describes the necessary conditions for the phenomena of the study (trust). In other cases, the theories may be seen as complementary, which

was the case in this research. My findings focus on some of the necessary conditions of trust which complement (but do not refute) the theories of Giddens and Luhmann. The argument is presented that trust may never be defined comprehensively but further research investigating the operationalisation of trust may still prove fruitful.

Stage 6: Concretisation and contextualisation

In this stage, the importance of studying the subject at different levels and under specific conditions was stressed. In terms of this thesis, the aim was to interpret the meanings of certain mechanisms of trust as they came in to view in a certain context; for example, trust in situations of risk. This is a means of contributing to explanations of concrete events and processes; for example, using this extreme case to discover the structural conditions of trust. This stage also distinguishes between structural conditions and accidental circumstances. For example, a person with CHD may have trust in any doctor in an emergency situation, which might suggest that risk plays a substantial role in trust. However, it is imperative that the researcher further examines the findings as the data may suggest that this specific subject has generalised trust in all doctors, no matter what the risk. In this case, it might not be risk that influences trust but a lack of reflexivity when it comes to trusting an expert.

Chapter Three has provided the overarching epistemology and methodology of this thesis. In addition, it highlighted how the methodology has been used to inform the interpretation of the data. The following Chapter Four identifies the methods used in the qualitative and quantitative components of this thesis.

Chapter 4: METHODS AND ANALYSIS

4.0 Introduction

As noted above, the chosen methodology for this research is theory driven methodological pluralism. The following section will outline the qualitative and quantitative methods employed. The quantitative component of this thesis has permitted inductive empirical generalisations, while the qualitative component has revealed further areas of exploration into the theories and conceptualisations of trust using deduction, abduction, and retroduction.

4.1 The qualitative study

An intrinsic case study (Stake 2003) has been undertaken for the qualitative component of this thesis. Given that the operationalisation of trust was being investigated, interviews were conducted with people with CHD because they have all been put in the situation where they have had to make a decision whether to follow the recommendations of healthcare professionals. Because I wanted to understand the nature of trust, these particular cases were beneficial in highlighting the relationships, experiences, and situations within which (dis)trust occurs.

While Stake (2003:140) views intrinsic case studies as being 'a study of a valid particular' and that 'generalisation should not be emphasized in all research,' I have used this case study as a means of understanding how trust is operationalised; the nature of trust. Whilst the case studies themselves are of value because they highlight important components of healthcare professional–patient relationships, the happenings at a theoretical level are the focus. Conducting a case study with a group of participants who are confronted with situations where they choose to (dis)trust provided a means of investigating the factors affecting trust at an abstract or conceptual level.

4.11 Sampling strategy

Based on the theoretical frame, a sampling strategy was designed to investigate four specific variables and their influence on patient (dis)trust: socio-economic status (SES), level of CHD risk, sex, and age. The sampling strategy was designed as a means of recruiting a diverse set of participants in terms of sex and age. Two

comparative analyses regarding risk and SES are outlined below. These comparisons have been designed to determine the gaps in current social theories of trust and to investigate the nature of trust.

Comparison One: Difference in trust as it relates to socio-economic status

A comparison between patients of high and low socio-economic status allowed investigation of the role of SES in patients' trust. As noted in Chapter Two, while Giddens and Luhmann argue that individuals are reflexive agents who weigh the risks involved in trust by prior knowledge and experience, Lupton argues that Giddens does not pay sufficient attention to the role played by sex, age, social class, ethnicity, and nationality in the construction of differing risk knowledges and experiences (Lupton 1997a; Lupton and Tulloch 2002). Comparison One provided a means for theme development with regard to age, sex, and SES.

Comparison Two: Difference in trust according to level of risk involved

The second comparison is based on the risk analyses of Luhmann and Giddens (Giddens 1994; Luhmann 2005). Giddens links risk to reflexivity, accountability, and responsibility. As such, it is argued that modern individuals are constantly forced to assess risks in decisions, and that the level of risk involved in the situation at hand has substantial influence over decisions to trust. Luhmann argues that risk emerges as a component of a decision; if there is no risk involved in a decision then confidence rather than trust is demonstrated.

Participants consisted of patients who had been prescribed a statin for the prevention of CHD, and CHD patients who had experienced some form of cardiac event (heart attack, heart surgery). Theory suggests that higher risk patients (those at high risk of having a subsequent cardiac event) will have higher levels of trust, whereas lower risk patients (those who have high serum cholesterol levels) will have lower levels of trust. This comparison aims to determine if, as theory suggests, risk is a factor in a patient's willingness to trust. Comparison Two allows theme development with regard to age, sex, and CHD risk.

4.12 Qualitative sample

Participants were identified as belonging to one of four groups (higher risk, higher SES; higher risk, lower SES; lower risk, lower SES; lower risk, higher SES) for the purpose of this research, which allowed for the comparisons outlined above and

provided an opportunity to draw comparisons between higher/lower CHD risk and higher/lower SES.

The most commonly used sampling approach in applied research is purposive (Miles and Humberman 1994). Purposive sampling aims to select participants according to predetermined criteria relevant to a participant research objective (Guest, Bunce et al. 2006). Denzin and Lincoln (1994:202) suggest that: 'many qualitative researchers employ…purposive and not random, sampling methods. They seek out groups, settings and individuals where…the processes being studied are most likely to occur' (Denzin and Lincoln 1994). In this case, the research objective was theory development and purposive sampling was chosen on the basis of theory. This is supported by Silverman (2001) who believes that sampling in qualitative research should not be statistical but rather, should be theoretically grounded (Silverman 2001). Mason (1996:93-94) suggests:

> *Theoretical sampling means selecting groups or categories to study on the basis of their relevance to your research questions, your theoretical position… and most importantly the explanation of account which you are developing. Theoretical sampling is concerned with constructing a sample (…) which is meaningful theoretically, because it builds in certain characteristics or criteria which help to develop and test your theory and explanation (Mason 1996).*

Given this strategy, participants were sampled from 33 different postcodes (for variation with regard to SES) and with higher or lower CHD risk. Therefore, a non-probabilistic, purposeful sampling approach was used because participants had to meet two basic criteria; they needed to be over the age of 18 in order to give informed consent, and they needed to be classified as either higher or lower risk CHD patients according to the definition given above.

Recruitment continued until theoretical saturation was reached. Morse (1994:147) argues that 'saturation is the key to excellent qualitative work', but at the same time 'there are no published guidelines or tests of adequacy for estimating the sample size required to reach saturation' (Morse 1994). Saturation occurs when the information being analysed by the researcher becomes repetitive and the ideas conveyed by participants have been shared by previous participants and do not result in new themes (Beanland, Schneider et al. 1999). Glaser and Strauss (1967:65) defined theoretical saturation as the point when:

> *…no additional data are being found whereby the (researcher) can develop properties of the category. As he sees similar instances over and over again, the researcher becomes empirically confident that a category is saturated...when one category is saturated, nothing remains but to go on to new groups for data on other categories, and attempt to saturate these categories also (Glaser and Strauss 1967).*

The term theoretical saturation refers specifically to the development of theory which is why it is in keeping with the methodology of this thesis. Theoretical saturation occurs when all of the main variations of the phenomenon have been identified and incorporated into the emerging theory. In this approach the researcher deliberately searches for extreme variations of each concept in the theory to exhaustion. Through the use of abductive logic areas that do not fit with the original theory have been identified, which demonstrates theoretical development. Analysis continued despite finding repeated similarities/differences to the theoretical model.

The sampling for this project continued until saturation was reached with 37 subjects participating. Although sampling aimed for diversity in terms of age and sex, recruitment was not limited in terms of personal characteristics (ethnicity, religion) because any diversity is beneficial for determining thematic commonalities/differences that arise between and within certain characteristics. However, a sampling strategy that aimed for diversity with regard to all personal characteristics was beyond the scope of this thesis.

4.13 Qualitative recruitment

Participants were recruited through South Australian cardiac rehabilitation programs, South Australian GP surgeries, and snowballing. See tables 1 and 2 for areas of recruitment. Potential participants were given an information package that included an information sheet, a letter of introduction, consent form, and a survey asking participants for their demographic details. The information package differed slightly according to the area of recruitment (see Appendices 1–7 on the attached compact disc). The cardiac rehabilitation groups were handed information packages by the cardiac rehabilitation coordinators and nurses. In addition, I attended several dietary and exercise sessions during the rehabilitation course as a means of meeting potential

participants. No incentives were offered for participation in the research. The GP clinics and cardiac rehabilitation programs listed below all agreed to distribute letters to patients fitting selection criteria for the study (see Appendix 8 for a letter requesting the GPs' assistance on the attached compact disc). In addition to recruiting through GP clinics and cardiac rehabilitation clinics, an advertisement was placed in a newsletter ('Wednesdays in the South') that is distributed to GPs working in clinics in the southern suburbs of Adelaide. The advertisement asked GPs for assistance with participant recruitment (see Appendix 9 on the attached compact disc). Participants were also recruited through community centre social events by handing out flyers (see Appendix 10 on the attached compact disc).

Table 1: Areas of recruitment for higher risk participants

Higher risk
Flinders Medical Centre (Public) Cardiac Rehabilitation Program
Modbury Hospital Cardiac Rehabilitation
Lyell McEwin Hospital Cardiac Rehabilitation Program
Flinders Private Cardiac Rehabilitation Program

Table 2: Areas of recruitment for lower risk participants

Lower risk
Parkside GP Clinic
Hills Medical Service
Placed an ad in GP newsletter 'Wednesdays in the South'
Handed out a flyer at the Playford community centre

Tables 1 and 2 outline where participants were recruited from. However, other avenues of recruitment were unsuccessfully explored. In order to recruit a divergent group with regard to SES and risk, different strategies were used. While public hospital cardiac rehabilitation programs proved beneficial for recruiting higher risk participants in lower SES areas, private hospitals were more suitable for contacting higher risk, higher SES participants. However, private hospitals were less willing to allow me to recruit participants. In order to reach this group of participants, a snowballing approach was used. In addition, the GP working at the Hills Medical Service contacted and distributed my letters to patients who he knew would fit my profiles.

I also had difficulties initially contacting lower risk participants. Prior to placing an advertisement and handing out flyers, I tried to recruit participants through chemists' shops. Several shops agreed to distribute my letters to customers filling prescriptions for statins. This proved ineffective as no participants were recruited using this strategy.

Recruitment and interviewing continued for over one year. The doctors involved in recruitment were helpful in assisting me to reach potential participants with the specific factors I was looking for.

4.14 Qualitative data collection

Participant profiles

The participants consisted of 22 males and 15 females with ages ranging from 32 to 80 years of age. Participants were defined as being either higher (n = 19) or lower (n = 18) risk patients (Table 3). Participants' SES and level of risk were defined according to within-group comparisons among the participants. It is for this reason that the terms 'higher' and 'lower' have been used as the participants were identified in relation to one another.

Table 3: Number of participants in each of the four groups

		Level of Risk		
		Higher risk	Lower risk	Total
SES	Higher SES	11	8	19
	Lower SES	8	10	18
Total		19	18	37

Participants were identified as either higher or lower risk patients. Higher risk CHD was defined as patients who had had some form of cardiac event/heart surgery, not including stents or angiograms. Lower risk patients were defined as being on medication to lower their serum cholesterol and/or who had angiograms or stent(s) insertion.

SES was determined based on a number of criteria. These criteria included researcher knowledge of the given residential subdivision, annual household income, education, and an index of relative socio-economic disadvantage (IRSD). The participants were classified as higher (n = 19) and lower (n = 18) SES relative to one another. As such, the way in which they were classified was specific to this group of individuals.

Individuals were identified as lower SES if they had an annual household income of less than $30,000. In situations where income was not stated by participants, education and IRSD were used as means of determining SES. Participants with high school education living in disadvantaged areas were also identified as lower SES in relation to participants in more advantaged areas with TAFE or university education.

Data collection procedure

The participants were interviewed between October 2008 and September 2009 about their compliance with, and trust in, professional dietary recommendations. Interviews were conducted in the participants' homes or at locations of their choice. Two interviews took place at a shopping mall, one at a café and another over a picnic at a local park.

Initial questions were designed to develop rapport and focused on the participants' current diet compared with what they were eating prior to their diagnosis of CHD. Holloway (2005) suggests that in order to gain a more complete perspective of trust that can help to assess the effectiveness of trusting relationships in health systems (delving into the substantial aspects of the research), the researcher must establish a relationship with the participant to facilitate the interview process. It is often better to begin with background questions that the participant might find easy to answer rather than the more complex or sensitive questions that should be asked later in the interview. Similarly, Spradley (1979:78) suggests that attention should be given to the issue of rapport because the development of mutual respect is what 'allows for the free flow of information' (Spradley 1979). As a means of doing this, prior to asking questions that were pertinent to the research, dietary habits were discussed. Topics of discussion included what they had for tea the evening prior to the interview, grocery items they already had in the house, and I also asked about their story. Many higher risk participants opened up when asked to share what happened to them on the day of their cardiac event, which helped to develop a relationship with the participant. In addition, time was spent drinking tea, chatting about home decor and other social conversation. The depth of rapport established may be judged by the fact that I developed several friendships from the interviews and have been contacted by four of the participants since conducting the interviews.

Subsequent questions followed an interview guide (Table 4) that investigated participants' relationships with their general practitioner (GP), healthcare providers in general (cardiologists, cardiac nurses, dietitians), their experiences with the medical system, their thoughts on the medical system, the risks involved in non-compliance with dietary changes, their trust in institutions (mainly the medical system and the government), and their trust in medical advice. The interview guide was designed to investigate social theories of trust and risk and consisted of 32 open-ended questions. All respondents were asked identical questions in the same sequence but the interviewer probed based on responses (Guest, Bunce et al. 2006). The semi-structured interviews followed a thematic guide with probes addressing: (1) Health status (dietary recommendations for intervention versus post-operative care), (2) Personal experiences of doctor–patient relationships, (3) Who participants think is responsible for setting the recommended dietary guidelines, (4) Risk factors involved in non-compliance with recommendations, (5) The extent to which the patient trusts and/or doubts the opinions of healthcare professionals (nutritionists, dietitians, cardiologist, cardiac nurses etcetera), (6) Other barriers in addition to trust that may affect the likelihood of patients to follow dietary recommendations, and (7) Whether they think they will be likely to follow the recommendations, and if so, the likelihood that it will become a long-term lifestyle change.

May (2001) suggests that information about age, sex, and occupation can be asked in a standardised format in the interview; however, I chose to ask participants to complete a brief survey consisting of six structured demographic questions (postcode, age, sex, household income, profession, level of education). These questions were asked as a means of determining IRSD quintile (obtained by postcode), SES (postcode, suburb, annual household income, level of education, current employment[8]) and also to compare differences with regard to age and sex.

Holloway (2005) also suggests that keeping a reflexive journal is useful for the emergence of new insights. Following each interview I wrote a vignette for the participant that provoked my memories of where they lived, what they looked like, topics discussed in the interview, and unforeseen information. This exercise was extremely useful when determining SES because it provided a record of the state of

[8] The nature of participants' current employment did not prove useful in determining SES because the majority of the participants were retired or were on leave from work due to their health condition.

the living accommodation, combined with income, IRSD quintile, and education. This made it easier to present an argument for SES within the participant group.

4.15 Method

Semi-structured interviews were chosen because they often yield rich insights into people's biographies, experiences, opinions, values, aspirations, attitudes, and feelings. Such interviews allow participants to answer questions on their own terms; more so than a standardised interview would permit. Structured interviews are thought to allow very little room for people to express their own opinions because responses must fit into boxes or categories (May 2001). Rather than using a formal interview script, semi-structured interviews outline themes and scenarios to be explored and include possible prompts to guide participants' exploration of things that are meaningful to them, rather than discussing things that may reinforce the researcher's preconceptions (Holloway 2005). The aim of the interviews was to explore the insider perspective, to capture in the participants' own words their thoughts, perceptions, feelings, and experiences regarding their (dis)trust in medical advice (Holloway 2005). Doctor–patient relationships and other personal health issues were included as topics for discussion. As such, individual semi-structured interviews were chosen to encourage participants to disclose information regarding their relationships with healthcare providers and engage in open discussion in confidence.

Holloway (2005) suggests that from an epistemological and philosophical perspective, interviews are appropriate for researchers who seek to give participants the opportunity to describe experiences in detail and to give their perspective and interpretation of these experiences. Semi-structured interviews allow probing to greater depths into the individual accounts. Each interview is thus unique with the aim of capturing the subjective account of the participant.

The qualitative component of this research focuses on the how and why questions – the nature of trust. Qualitative interviews allow for this and also provide an opportunity for the researcher to explore sensitive experiences that were not accessible in the quantitative aspect of this research (Holloway 2005).

Interviews were audio recorded so that as I was taking notes, I could afford to miss verbal information. As a result, I was able to record body language, visual cues,

facial expressions, and other forms of communication that cannot be recognised without visual contact. All interviews were recorded in full (Hyman, Cobb et al. 2004) and transcribed verbatim (Wray, Markovic et al. 2007).

4.16 Designing the interview guide

Prior to designing the interview guide, a table outlining planned questions and their relevance to the theoretical investigation was created. For example, as part of understanding how trust is operationalised, I wanted to know if, as Luhmann argues, an individual must have trust in the systems that influence and mutually interact with the medical system if they are to have trust in the medical system itself (Luhmann 1979). Therefore, a specific question was designed to address this aspect of theory. In addition to discussing trust in the medical system, I also asked about trust in the government and reasons for (dis)trust.

Questions used in interviews need to be constructed unambiguously and the researcher must be clear about what each question is for, who is to answer it, and the goal of its intended interpretation (May 2001). After ensuring that each of the planned questions served the purpose of either investigating aspects of the theory (deductive logic) or would be used to build rapport, the interview schedule was organised so that easier questions were asked first. I then piloted the interview guide because May (2001) suggests that an interview guide needs to be piloted on a subsample before it is used with the full sample. May (2001) also suggests that after piloting the questions, it is beneficial to address the questions and determine whether it is worth changing the questions, their sequence, or the types of questions themselves and to consider any difficulties participants experience in answering them. The initial interview guide was piloted with a man who is on medication to lower his cholesterol. After the pilot the order of the questions was altered slightly as was the wording. The pilot participant provided feedback regarding the ease/difficulty of the questions. The final interview guide and rationale can be found in Table 4.

Table 4: Interview questions and rationale

Questions to be explored	Rationale
What did you have for tea last night?	*Rapport building*
Has the way you eat changed since your cardiac event/you went on medication to lower your cholesterol?	

Can you tell me a bit about the dietary recommendations you have received?	*Rapport building as well as warming into the interview*
Are these recommendations different to your current diet? If yes, what are the changes that you are being asked to make?	
Will this be a difficult thing to do?	
Are there any enablers/things (people, benefits etcetera) that you foresee helping you to follow these changes?	
Do you foresee any barriers in following these changes?	
What are the benefits of making these changes?	
Do you think you will follow all/some/none of these changes?	*Giddens' and Luhmann's risk analysis*
How important is making these changes to you?	
What are the risks involved in not following them?	
Have you ever doubted the recommendations of your healthcare provider?	*Giddens and Luhmann – Reflexivity*
Have you ever doubted the information on dietary advice from anyone other than your healthcare professional?	
Who has provided you with these dietary recommendations?	*Giddens and Luhmann – Source of dietary information – source of interpersonal (dis)trust*
Who is providing you with the actual dietary information – e.g. food labelling, cardiac rehab nurses, dietitians, GPs, Internet, Australian food guide?	
Where else do you get information about diet and recommendations for lowering cholesterol?	*Giddens and Luhmann – Sources of interpersonal/institutional (dis)trust*
What would you say is the first source you turn to for diet-related information?	*Giddens – Trustworthy sources (facework versus faceless commitment)*
Which of the sources of information about diet would say is most	

reliable/trustworthy? Why?	
Who do you think sets the guidelines for the recommendations you have received? For example, who is responsible for creating the Australian food guide?	*Luhmann's Systems Theory – is there a relationship between trust in one system and trust in the systems they mutually interact with?*
Who have you been meeting with to discuss your high cholesterol OR coronary heart disease?	
How long have you been seeing your …. ? (*health professional they are seeing*)	*Luhmann – Familiarity*
Can you share positive or negative experiences that you have had with healthcare providers? This does not necessarily have to be related to your high cholesterol/CHD.	*Luhmann and Giddens – Interpersonal trust/facework commitment*
Would you say that you 'trust' your… ? (*whoever they have been seeing about their health problems*) **Why yes or no?**	*Luhmann and Giddens – Interpersonal trust/facework commitment* *Conceptualisation of trust*
If yes, have you ever doubted any of the health related information provided by your …? (*health professional they are seeing*)	
If no, what are the contributing factors to your lack of trust?	
Are there things your physician could do to improve your trust?	*Giddens – Interpersonal trust/facework commitment – trustworthy characteristics*
Can you tell me your thoughts on the following? Feel free to say pass to any of them **-the Australian medical system – access to healthcare** **-two-tier health system** **-waiting times** **-gaps/bulk billing** **-access to healthcare**	*Luhmann Systems Theory – trust in systems that mutually interact and influence one another (if the participant (dis)trusts the medical system, do they (dis)trust the government as well?)*
Where else do you get information about your health?	*Giddens and Luhmann – Sources of interpersonal/institutional (dis)trust*
What would you say is the first source you turn to for health related information?	*Giddens – Trustworthy sources (facework versus faceless*

Which of these sources do you feel are reliable/trustworthy? Why?	*commitment)*
If you were in an emergency situation and brought into the emergency department, would you trust a doctor you have never seen before?	*Trust versus dependence*
If your regular GP was unavailable and could not see you, would you be likely to see another GP?	

4.17 Qualitative data analysis

Data analysis began following the first interview, which is indicative of deductive logic. The qualitative interviews allowed for constant and continual reworking of interview topic guides where data analysis can be a simultaneous and interactive process (Bluff 2005). Following the pilot interview, an initial analysis was conducted to ensure relevant information was collected.

The analysis was conducted as a means of theoretical development. Therefore, using abductive logic, the data were coded to determine their fit with either Giddens' or Luhmann's theory, my critique of the theory or if the findings were novel (Guest, Bunce et al. 2006).

Coding of interviews and data management was done with Nvivo 8 software. Coding included linking words with similar meanings that created theoretical categories to provide a more abstract meaning (Bluff 2005). During coding and throughout the analytical process, additional questions were generated that were incorporated as part of the interview guide for subsequent interviews.

Three orders of analysis were employed during the analysis: first, second, and third order (Coveney 2007). This is also described as open coding, axial coding, and selective coding (Glaser and Strauss 1967; Strauss and Corbin 2004)

First order analysis

The approach in first order analysis is built from the ground up (Coveney 2007). First order analysis is a description of the themes arising from the data. This was

completed throughout the interview process. Each of the interview transcripts was transcribed directly after the interview so that the data analysis and collection could be compared. First order analysis was conducted using open coding: the process of breaking down, examining, comparing, conceptualising and categorising data (Strauss and Corbin 2004). When coding, words or sections of text were coded using the actual words used by participants, or by grouping similar words conceptually (see example, Table 5). Open coding pertains specifically to the naming and categorising of phenomena through close examination of data. Strauss and Corbin (2004) argue that without the first basic analytical step, the rest of the analysis and communication that follows could not take place. During open coding the data are broken down into discrete parts, closely examined, compared for similarities and differences, and questions are asked about the phenomena as reflected in the data. Through this process, one's own and others' assumptions about phenomena are questioned or explored, leading to new discoveries.

Table 5: Example of first order analysis

Categories
Eating habits prior to heart attack
Trust dietitian's advice
Changes in diet since heart attack
Compliance with dietary recommendations
Trusts GP because he is caring
Risk as a factor involved in making changes
Determination
Dependence
Don't have a choice but to trust
Concerns about keeping up changes
'Don't go overboard'
Cheats on occasion
Non-compliance
Barriers to compliance
Did not finish cardiac rehabilitation
Compliance
Risk as a factor in compliance
Compliance decreases as perceived risk decreases

Second order analysis

Second order analysis provides an examination of the data from a theoretically informed perspective. In my case I framed the data that were found to be fitting in with current theoretical and empirical literature. Conceptualising the data becomes the first step in analysis. By breaking down and conceptualising, an observation may be taken apart. For example, a sentence, a paragraph, a discrete incident, idea or event may be identified as something that stands for or represents a particular phenomenon. However, it is second order analysis that allows us to look at phenomena that can be given the same name (Strauss and Corbin 2004). This was done by grouping the original categories into larger themes. The second order analysis involved slotting each of the initial linked categories into larger categories based on current theoretical and empirical literature. Through the application of abductive logic, these larger categories created using Nvivo were entitled Luhmann's theory, Giddens' theory, Meyer's critique, empirical literature (findings that did not fit with the theory but were similar to current empirical literature), or ambiguous (findings that did not fit in with any of the empirical or theoretical data), as shown in Table 6.

Table 6: Example of second order analysis

Linking the categories to the theoretical and empirical literature
Theoretical 1. Trust • Trusts dietitian's advice • Trusts GP because he is caring 2. Risk • Risk as a factor involved in making changes • Risk as a factor in compliance • Compliance decreases as perceived risk decreases • Eating habits prior to heart attack • Changes in diet since heart attack
Empirical 1. Dependence • Don't have a choice but to trust • Dependence 2. Compliance • Compliance with dietary recommendations • 'Don't go overboard' • Cheats on occasion • Non-compliance • Barriers to compliance • Compliance
Ambiguous • Concerns about keeping up changes • Did not finish cardiac rehabilitation • Determination

Third order analysis

The initial categories created in second order analysis were quite large and needed to be reduced to permit sensible interpretation. In the course of research, we may come up with dozens, even hundreds of conceptual labels; these concepts also have to be grounded (Strauss and Corbin 2004). Analyses of qualitative data should move beyond a description of the data to an interpretation of the data within knowledge that is already present (Popay 1998). Therefore, upon identification of how the data fitted within the theoretical and empirical literature, third order analysis was used to group concepts and pull out the data that were most relevant to the current thesis. The process of grouping concepts that seem to pertain to the same phenomena is called categorising (Strauss and Corbin 2004). Throughout this process, I began to see what was going on in the data both theoretically and empirically. In addition to findings that were fitting with the initial theoretical and empirical premises, themes emerged that were not part of my initial hypotheses. As noted in the methodology, counterfactual thinking (retroductive logic) uses stored knowledge and experience of social reality to explore questions such as 'could one imagine trust without X?' Given that this research was theory-driven, during third order analysis it was apparent which findings were fitting with the initial theoretical critique and which were not. Given the proposed theoretical frame, if the participants' conceptualisation of trust differed from that of Luhmann or Giddens, it was clear that participants (according to the theory), were not 'trusting'. An absence of trust, or a concept distinct from trust, was easily identifiable in third order analysis.

In addition to employing components of deduction and retroduction, using first, second, and third order analysis also utilised abductive inference in that it allowed the scope to interpret the findings from different angles. For example, unlike content analysis (Silverman 2001; Seale 2004), first, second, and third order analyses investigating how participants conceptualise their words – not just how many times they used specific words – became feasible. This was beneficial in that while participants might have used the word 'trust' quite often, they conceptualised trust differently to how trust is conceptualised in the literature. For example, many of the participants say that they trust in certain situations; however, the conceptualisation

of trust would seem to suggest that they are confident, familiar or dependent. The process of contextualisation outlined in the methodology became beneficial in this form of analysis.

4.18 Qualitative research ethics

Ethics approval was obtained from Flinders Social and Behavioural Research Ethics Committee (SBREC) (August 2008).

4.2 The quantitative study

4.21 Quantitative research design

A set of questions was developed for the survey, based on the theoretical framework (investigating interpersonal/institutional trust, reflexivity, familiarity) and by conducting a systematic search for questions from pre-validated questionnaires, including the World Values Survey and the General Social Survey (World Values Survey Assocaition 2005/2006; National Opinion Research Center (NORC) 2006). Prior to survey distribution, a pilot study was undertaken and the pilot study methods and findings were used to assist in the further development of the instrument. This included rigorous testing for reliability and to some extent for validity. The following section outlines the findings from the pilot study (August 2009) that led to a valid and reliable instrument for investigating the extent of trust in Australia. A paper presenting results from the pilot study has been accepted for December 2010 issue of Development and Society. The tool has been acknowledged by academics as a valid and reliable tool for measuring trust[9] (Meyer, Luong et al. 2010).

4.22 Pilot

Sample

A total of 33 Australian respondents (18 males and 15 females aged 19 to 63 years), residing in metropolitan Adelaide (South Australia) were recruited as a sample of

[9] Trust is a component of the Theory of Social Quality. The tool developed for this thesis is part of a wider International study investigating social quality. As such, the publication that has been accepted provides the results of a pilot verifying the reliability and validity of a tool measuring trust in addition to other components of the Theory of Social Quality.

convenience (Barry, Britten et al. 2001; Scambler and Britten 2001). Sampling aimed for diversity with regard to age and sex.

Accuracy and consistency are vital to the construction of effective measures and indicators. Thus, together with validity, reliability constitutes a core concept of research methods (Nardi 2003) and needs to be applied in order to operationalise trust through statistical testing of variables. The main rationale for conducting the pilot test using the sample of 33 respondents was to assist in highlighting problem questions that the research team may not have recognised or noticed prior to editing and modifying the extensive questionnaire (Presser and Blair 1994). After piloting the questionnaire, many of the questions were removed or altered. This made the questionnaire more accessible, but also shorter in length. The pilot served as a means of reducing the response burden. After the pilot, questions were removed thus decreasing the amount of time needed to complete the survey and increasing the likelihood of survey completion and return. In addition, the pilot was useful in facilitating the development of questions that were comprehensible for lay persons.

Instrument

The original survey (before testing for reliability and face validity within this study) consisted of 11 questions (mostly nominal and ordinal levels of measurement with the number of items in five questions ranging from 7 to 11) relating to interpersonal/institutional trust, reflexivity, and familiarity. In addition, five demographic items were included which became five of the independent variables for data analysis (age, sex, annual household income, overall health status, presence/absence of a chronic health problem).

The analyses were focused on reliability testing using the Statistics Package for the Social Sciences (SPSS). Both test–retest and inter-item reliability analyses were conducted. If the results from the test–retest analyses (kappa, or Spearman Correlation tests) and the inter-item reliability test (Cronbach α) were statistically non-significant ($p > 0.05$; $n = 10–33$) or the coefficients were < 0.70 for any of the questionnaire items then the questions were amended or removed. Questionnaire items were also removed if response rates for these items were found to be very low (≤ 33%).

Assessment of test–retest reliability and face validity was conducted prior to inter-item reliability and as a result, some of the questions had already been changed

prior to inter-item testing. Any questions that scored poorly on inter-item reliability were subsequently altered. SPSS statistical analyses were used to identify items within questions that lowered the reliability scores. The questionnaire items that lowered the reliability of the question were removed until Cronbach's α was ≥ 0. 70. Several questions were changed conceptually or shortened to include fewer items because these items were found to diminish the overall reliability of the results. The reliability results below provide information on questions that were altered or removed following the pilot. Questions that scored well in terms of test–retest and inter-item reliability are provided in Table 8 along with the corresponding reliability scores.

Validity

Face Validity

Face validity was obtained prior to data analysis by asking some respondents to offer feedback about their experience of answering the questionnaire. Face validity is often defined as an 'expert' review of the contents of an instrument for usefulness and relevance (Reber 1985). It can be argued that respondents have expertise (Barry, Britten et al. 2001; Scambler and Britten 2001) so feedback from them offered a form of face validity. In addition to respondent feedback, two academics who had research experience and taught questionnaire design also reviewed drafts. Certain difficulties were discovered following feedback from both types of expert and appropriate amendments were made to a few of the questions prior to statistical data analysis.

Therefore, before conducting the pilot, it was determined that because the trust model had been comprehensively developed and validated, it already had face, content, and construct validity (Bowling and Ebrahim 2005).

Content validity

Content validity is concerned with whether the tool being used to measure a concept (trust, for example) is providing an adequate measure of the area of interest (Collingridge and Gantt 2008). Similar to face validity, content validity was obtained by discussing the survey with a range of experts who agreed that the content of the survey appeared to be logical and comprehensive. In addition, many of the questions used were taken from pre-validated surveys, providing another means of content validity.

Construct (convergent) validity

Construct (or convergent) (Bowling and Ebrahim 2005) validity reflects a concern with whether we are truly assessing an underlying construct such as emotional well-being, physical comfort, and pain (Collingridge and Gantt 2008). Given that there is currently no 'measure' or tool for measuring trust, construct (convergent) validity was not addressed.

Criterion validity

Criterion validity refers to the strength of the relationship between the measurement tools and other measures of the same phenomenon (Collingridge and Gantt 2008). No outcome measures exist (tools for measuring trust or similar phenomena) and therefore, there was no way to assess criterion validity. In addition, the aim was not to develop an instrument to be used for predictions in the future so criterion validity does not apply to the present thesis.

Reliability

Test–retest

The test–retest analysis applied Cohen's kappa coefficient (1968 as cited in Bowling 2009 p. 163) to test nominal data, using kappa for ordinal data and Spearman's correlations for interval level data. Test–retest reliability scores were found to range from perfect congruency (Kappa = 1.0) to poor correlation (the lowest being a Spearman correlation coefficient of 0.17). Questions were removed because of poor reliability unless they had been conceptually altered as a result of respondent feedback (face validity). The results for test–retest reliability will be presented in the categories used for the survey.

All questions about respondents' demographic details had Spearman correlations > 0.8, showing that these questions including sex, age, and annual household income, were reliable.

Questions asking respondents to rate their overall health (very good, good, fair, bad, very bad) scored highly, as did the question asking respondents if they have experienced long-standing chronic physical or mental illnesses ($\geq$ 0.9). However, when respondents were asked to what extent their physical/mental health problem(s) hampered their lives, response rates were low (n = 11) and the question was removed.

The question asking respondents about how long they had been seeing their GP or family doctor (less than one year, 1 to 5 years, 6 to 10 years, over 10 years, I do not see a general practitioner [GP]) scored highly (0.9) as did the majority of questions about the factors that would influence respondents' trust in a doctor who they had never seen before (the way they are dressed, they are wearing a white coat, they seem to be caring, they listen to you, they appear to be competent in their ability as a doctor, they appear to be older than 40, they appear to be younger than 40, they are female, they are male). The questions about factors that would influence individuals' trust that did not score highly in terms of reliability (and were removed) were 'they are friendly' (0.6), 'they appear to be looking out for your best interest' (0.6), and 'their ethnicity' (0.6).

A question that created discussion amongst the researchers was 'Generally speaking, would you say that most people can be trusted?' This question scored poorly (0.6) but it has been used in the World Values Survey and in the General Social Survey (both surveys have been used and validated extensively). The question remained part of the survey.

The question asking whether respondents had ever requested a second opinion from a doctor after receiving medical advice scored well (0.7) as did the question asking whether most people would take advantage of the respondents if they had the chance (0.9).

Respondents were asked questions about whether they had ever doubted information from government and non-government organisations, such as 'religious organisations', 'the press', 'the legal system', 'the media', 'your government', 'United Nations', and 'banks'; and whether they doubted information from individuals or groups of individuals, such as 'your family doctor', 'doctors in general', 'family members', 'friends/people you know personally', 'your dentist, 'dentists in general', 'local politician', 'national leader', 'employer', 'bank employee', 'news reporter'. Several of the questions asking about doubt in organisations scored low ($\leq$ 0.6) and were removed from the survey (the legal system, local government and banks). However, 'your local government', 'credit card companies' and 'the media' showed high test–retest reliability. Similarly, many of the questions that asked about the respondents' doubt in certain individuals were found to be unreliable ($\leq$ 0.6) and were removed (your dentist, dentists in general, local politician, national leader,

employer, bank employee, news reporter). The only items that remained for this the question regarding doubt in individuals were ‘your family doctor’, ‘doctors in general’, ‘family members’, and ‘friends/people you know personally’.

Respondents were asked if they trusted various groups of people. The groups that scored well in terms of reliability were ‘family’, ‘your neighbours’, ‘people you meet for the first time’, ‘your regular doctor’, ‘doctors in general’, ‘a doctor you meet for the first time’, ‘people of another religion’, ‘people of another nationality’, ‘national political leader’, ‘local politician’ and ‘police officer’. ‘Your dentist’ and ‘a dentist you are seeing for the first time’ scored low (< 0.6) and were subsequently removed.

Questions that asked about trust in organisations scored highly (religious organisations, the press, the legal system, the media, your government, United Nations, and banks) with the exception of ‘credit card companies’ (0.6) and ‘charitable/humanitarian organisations’ (0.2).

Inter-item reliability

Inter-item reliability testing was used for questions that had multiple questionnaire items. For example, questions regarding trust in individuals listed 11 items (family, doctors, etcetera). Cronbach α scores derived from the analyses conducted on the questionnaire (before questions or items were removed) ranged from 0.40 to 0.85. SPSS identified items within questions that lowered the reliability. The items that lowered the reliability of the questions were removed until Cronbach’s α reached > 0.69.

Test–retest reliability was conducted prior to inter-item reliability. Consequently, some of the questions that that had poor Cronbach α scores for inter-item reliability had already been changed conceptually, or removed as the result of poor test–retest scores, or as the result of examining face validity.

Given that the above overview of test–retest reliability findings is very thorough, the overview of the inter-item reliability testing is restricted to only the changes that were made as a result of poor inter-item reliability. The findings will be presented in the categories used for the survey.

The only question that was removed from the trust module as the result of poor inter-item reliability was about factors that influence trust in a doctor who is being

consulted for the first time. By removing the item ‘ethnicity’, Cronbach α increased to > 0.7.

The findings of the pilot were used to produce a reliable and valid tool to be used for the quantitative survey as a means of identifying the nature of trust in the Australian population. The number of questions remaining for the final survey was 9 (4 questions containing between 4–11 items and two questions relating to health status, not trust specifically) together with the original 5 demographic questions. Each question has been divided into sections according to their purpose of inquiry regarding the theory for the purpose of analysis (Table 7).

The removal of many questionnaire items also reduced the length of the questionnaire, which likely assisted in increasing the response rate. This was important as the instrument was administered by post, where the response rate is usually lowest (De Vaus 2002).

Table 7: Trust survey: questions divided into areas of theoretical inquiry

Question	Theoretical area of inquiry
1. Generally speaking, would you say that most people can be trusted? (yes, no, don’t know) **2. Do you think that most people would take advantage of you if they had the chance? (yes, no, have not thought about it)**	Generalised trust
1. How much do you trust various groups of people? (trust them completely, trust them somewhat, do not trust them very much, do not trust them at all, have not thought about it, not relevant) **a. Regular doctor** **b. Doctors in general** **c. A doctor you are seeing for the first time**	Trust in medical professionals Interpersonal trust
1. Have you ever requested a second opinion after receiving medical advice from a doctor? (yes, no) **2. Have you ever doubted information from the following individuals? (yes, no, have not received information from this individual)** **a. Your family doctor** **b. Doctors in general** **c. Family member** **d. Friends/people you know personally** **3. Have you ever doubted information from the following organisations/institutions? (yes, no, have not received information from this organisation)** **a. Your national government** **b. Credit card companies** **c. The media**	Reflexivity

1. How much do you trust various groups of people? (trust them completely, trust them somewhat, do not trust them very much, do not trust them at all, have not thought about it, not relevant) **a. Your family** **b. Your neighbours** **c. People you meet for the first time** **d. People of another religion** **e. People of another nationality** **f. National political leader** **g. Your local politician** **h. Police officers**	Interpersonal trust
1. How much do you trust the following organisations/institutions? (trust them completely, trust them somewhat, do not trust them very much, do not trust them at all, have not thought about it, not relevant) **a. Religious organisations** **b. The press** **c. The legal system** **d. The media** **e. Your government** **f. United Nations** **g. Banks**	Institutional trust
1. If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? (a lot, somewhat, not at all, don't know) **a. The way they are dressed** **b. They are wearing a white coat** **c. They seem to be caring** **d. They appear to be competent in their ability as a doctor** **e. They appear to be older than 40** **f. They appear to be younger than 40** **g. They are female** **h. They are male**	Trustworthy characteristics

A summary report of the changes made to the questionnaire and the statistical analysis obtained using SPSS is shown in Table 8.

Table 8: Summary of results for reliability of the survey

Question	Test–retest*	Inter-item#
In general, would you say your health is… • **Very good** • **Good** • **Fair** • **Bad** • **Very bad**	**0.90**	**n/a**
Do you have any chronic (long-standing) physical or mental health problem, illness or disability? (yes/no)	**0.90**	**n/a**

How long have you been seeing your current general practitioner or family physician? • **Less than one year** • **1 to 5 years** • **6 to 10 years** • **Over 10 years** • **I do not see a GP**	**0.90**	**n/a**
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? Please circle a number from 1 to 3 or tick the box on the far right. • **The way they are dressed** • **They are wearing a white coat** • **They seem to be caring** • **They listen to you** • **They appear to be competent in their ability as a doctor** • **They appear to be older than 40** • **They appear to be younger than 40** • **They are female** • **They are male**	**0.90** **0.80** **0.90** **0.70** **0.80** **0.80** **1.00** **0.70** **0.70**	**0.70**
Have you ever received a second opinion from a doctor? (yes, no)	**0.70**	**n/a**
Do you think that most people would take advantage of you if they had the chance? (yes, no, have not thought about it)	**0.90**	**n/a**
How much do you trust various groups of people? • **Your family** • **Your neighbours** • **People you meet for the first time** • **Your regular doctor** • **Doctors in general** • **A doctor you are seeing for the first time** • **People of another religion** • **People of another nationality** • **National political leader** • **Your local politician** • **Police officers**	**0.80** **0.80** **0.90** **0.80** **0.80** **0.70** **0.70** **0.80** **0.80** **0.80** **0.90**	**0.70**
How much do you trust the following organisations or institutions? (trust them completely, trust them somewhat, do not trust them very much, do not trust them at all, have not thought about it, not relevant) • **Religious organisation** • **The press** • **The legal system** • **The media** • **Your government** • **United Nations** • **Banks**	**0.80** **0.70** **0.80** **0.90** **0.80** **0.70** **0.80**	**0.80**
Have you ever doubted information from the following organisations/institutions? (yes, no, have not received information from this organisation/institution) • **Your national government** • **Credit card companies** • **The media**	**0.80** **0.70** **0.90**	**n/a**

Have you ever doubted information from the following individual(s)? (yes, no, have not received information from this individual) • **Your family doctor** • **Doctors in general** • **Family members** • **Friends/people you know personally**	**0.80** **0.80** **0.70** **0.70**	**n/a**

*Test–retest reliability scores were measured using Kappa congruencies (for nominal variables) and Spearman correlation coefficients (for scale questions) and were deemed reliable if scores were found to be > 0.69. All values have been rounded to one decimal place.

#Inter-item reliability scores were measured using Cronbach's α and were deemed reliable if Cronbach's α was found to be > 0.69. Inter-item reliability scores are not listed for questions that did not have more than one item. All values have been rounded to one decimal place. Inter-item scores are not provided for questions that had been changed (based on face validity or test–retest validity) prior to testing.

Refer to Appendix 15 for the final valid and reliable survey on the attached compact disc.

4.23 The postal survey

Survey research is the most common method for obtaining primary data. Moreover, surveys are often conducted due to their relative ease, efficiency, and accuracy in terms of acquiring information from the intended audience (Alreck and Settle 2004). Thus, when addressing the extent of trust in the Australian population, survey research was the most suitable option.

A structured postal questionnaire was chosen as the method of data collection because it is an efficient and economical way of reaching a large, geographically spread population. Telephone and face-to-face interviews can be costly and time consuming (Bowling 2009).

4.24 Quantitative sampling frame

Respondents were recruited for the national survey using the electronic white pages telephone directory, which contains postal addresses for all households with a landline telephone. This method has good overall reach. For example, only 5% (69,700) of Queensland[10] households do not have a landline. In addition, of the 1,403,500 households who do have a landline, 1,138,500 households (81.1%) had at least one listed and contactable connection (Australian Bureau of Statistics 2004).

[10] Currently there are no national statistics for household telephone connections. The only available statistics were for the State of Queensland.

Therefore, the small proportion of households nationally who do not have a telephone, are not currently connected, or are privately listed, were excluded. However, this possible limitation is outweighed by the fact that the electronic white pages directory is one of the few representative sources from which a national random sample of postal addresses can be generated. Access to the electronic white pages was facilitated by the Population Research and Outcomes Studies Unit at the South Australia Health Department, who undertake numerous population based studies such as the study undertaken for this thesis.

4.25 Quantitative sampling strategy

A stratified sampling was employed. The sample was drawn from the Australian population and consequently, it was necessary to divide the national population into strata (Alreck and Settle 2004). The data were stratified on the basis of states and territories. More surveys were sent to areas/states with higher population numbers (see Table 9).

Table 9: Number of surveys distributed nationally according to State/Territory

State	Number of surveys posted
ACT	82
NSW	1650
NT	45
QLD	971
SA	389
Tas	120
VIC	1253
WA	490
Total	**5000**

4.26 Quantitative data collection

A copy of the questionnaire, an information letter, a letter of introduction, and a stamped return envelope was sent to each mail-out address (see Appendices 15–17 on the attached compact disc). Bowling (2009) suggests that including a cover letter (or letter of introduction) is a good method of increasing response rates. A postcard reminder was sent to those who had not returned the questionnaire after two weeks as a means of increasing the response rate (see Appendices 18–19 on the attached compact disc) (Bowling 2009). This was aided by small code numbers printed on each return envelope prior to the mail out. The codes corresponded to the

addresses and thus it was possible to identify from which addresses surveys had or had not been returned.

The expected response rate was 20%. In order to obtain a final sample size of 1000, it was estimated that an initial sample of 5000 addresses was required. Of the 5000 surveys that were sent out, 638 were returned because of incorrect addresses, making the number of surveys sent out 4362. After the initial mail out, 636 surveys were returned, including 5 which were not completed (respondents left them blank). After mailing out the reminder postcards, an additional 413 surveys were returned making the total completed survey count 1044. This means that the response rate (which does not include the invalid addresses/return to sender surveys) was 1044/4362 (23.9%), higher than the initial expected response rate.

The surveys were sent out in early September 2009 and respondents were given approximately two weeks' turnaround time before reminder postcards were sent out.

4.27 Quantitative data analysis

Data entry

The data were entered manually using SPSS. Each variable was pre-coded. Surveys with missing or illegible responses were coded '99' to represent missing data.

Data cleaning

In order to eliminate errors that occurred during data coding and input, univariate frequencies were used for data cleaning (Bowling 2009). Because the frequencies were run on SPSS, any data that had been miscoded were subsequently followed up by going back to the relevant survey and determining the correct code.

Data manipulation

After data entry had been completed, the data were matched to IRSD quintiles using postcodes. Each postcode in Australia was identified as fitting into one of five IRSD quintiles. IRSD 1 is identified as the most disadvantaged areas and IRSD 5 as the most advantaged areas. Access to the IRSD quintiles was facilitated by the Population Research and Outcomes Studies Unit at the South Australia Health Department.

Data were also manipulated throughout the bivariate analysis. During the bivariate analysis, some of the data were found to have expected cell counts of less than five. When using chi square testing, all cells must have an expected count greater than five or analyses cannot be conducted. As a result, many of the categories within the independent variables were collapsed in order to help the data meet this assumption. This was done by recoding the variable using SPSS. Data that could not be collapsed to help meet the assumption have not been included in the results section (see Appendix 11 on the attached compact disc).

Data were also manipulated prior to conducting the multivariate analysis. The multivariate analysis was conducting using binary logistic regression. As a result, 31 of the dependent variables had to be recoded as dichotomous variables (see Appendix 12 on the attached compact disc). This was done using the SPSS recoding function.

Analysis

The following section will be split into three: univariate analysis, bivariate analysis, and multivariate analysis.

The following analysis was conducted using 7 independent variables (age, sex, annual household income, IRSD quintile, overall health and presence/absence of a chronic health conditions, length of time with current GP) and 36 dependent variables. Although there were only 9 questions, 5 of them had more than one item. In addition, in order to investigate specific lines of inquiry, some of the data were manipulated using SPSS to create different variables.

Univariate analysis

Univariate analyses (frequencies) were calculated using SPSS descriptive statistics. Each of 7 independent and 36 dependent variables was analysed. Frequencies provide an overall picture of the data (for example, males versus females).

Bivariate analysis

Seven independent variables (age, sex, annual household income, health status, presence of a chronic health problem, length of time with current GP, and IRSD quintile) were chosen based on the aforementioned theoretical framework (see Chapter Two). Income and IRSD quintile were used to determine SES, health status and presence of a chronic health condition were used as means of addressing

whether health status (risk) influences trust, length of time was used as a means of investigating familiarity, while age and sex were used as means of determining other social factors influencing trust.

Each of these 7 independent variables was analysed for association with 45 dependent variables in bivariate analyses (36 original dependent variables and 9 dependent variables created by data manipulation in SPSS). Bivariate analysis was conducted using chi square (Cramer's V and Phi), Student t test, one-way ANOVA, Mann–Whitney U, and Kruskal–Wallis H, depending on the nature of the dependent variable. Chi square was used for dependent variables with fewer than 6 categories (for example, testing the association between sex [male/female] and whether the respondent thought a person would take advantage of them if given the chance [yes/no]). Student t tests (independent variable has only 2 categories) and one-way ANOVA (independent variable has more than 2 variables) were used to analyse parametric (normally distributed) dependent variables with 6 or more categories. Mann–Whitney U (independent variables has only 2 categories), and Kruskal–Wallis H (independent variables has more than 2 categories) were used for non-parametric dependent variables with 6 or more categories.

The bivariate analysis consisted of testing the relationship (statistical significance) of each the 7 independent variables with each of the 45 dependent variables. Each test produced a table that was subsequently analysed for statistically significant associations. At times, the data could not be collapsed to help meet test assumptions. For example, the age category had such a large number of variables that several times when the test was run, there were fewer than 5% of the respondents in one or more cells and therefore the age categories were collapsed (18–24 became 18–34). However, at times the categories could not be collapsed to meet assumptions. These data and the data that were not statistically significant are not included in the results section.

Multivariate analysis

Binary logistic regression analyses were performed in order to explore associations between the independent variables (demographic characteristics) and the dependent variables. Any bivariate odds ratios with $p < 0.25$ were included in multivariate logistic regression analyses (see Appendix 13 on the attached compact disc) (Hosmer and Lemeshow 2000). All models were checked to see how well the

chosen model fitted the data, using Hosmer–Lemeshow goodness-of-fit (Field 2005).

The analyses were run using the SPSS logistical analysis function. The data were analysed by comparing odds ratios (OR) using the enter method. The enter method was chosen so that I could manage the data manually, removing the least significant variables one at a time. Data were checked for model stability using Hosmer and Lemeshow (chi square for two or more variables) and 95% confidence intervals (CI). The categorical variables were referenced according to the first category. The results can be found in Chapter Six, where only the data found to be statistically significant is presented. All results were rounded to two decimal places with the exception of p values ranging from 0.000 to 0.009.

4.28 Quantitative research ethics

Ethics approval was given by the Social and Behavioural Research Ethics Committee (May 2009).

4.3 Ensuring quality in research

Outlined below are the steps taken to ensure quality in the design and execution of the research methods. Quality in qualitative research is often ensured by providing evidence of rigour in data collection whereas in quantitative research we discuss reliability and validity. Given the difference in language used for ensuring quality in research methods, each of the two methods will be discussed separately.

4.31 Ensuring quality in qualitative research

Popay, Williams et al. (1998) suggest that there is no absolute list of criteria which constitute good qualitative research; however, there are markers of quality qualitative research which will be outlined below with reference to how they have been addressed in the qualitative component of this thesis.

Evidence of responsiveness to social context and flexibility of design

Qualitative research seeks to locate lay knowledge and understand subjective meaning. There is an absence of standardised procedures in qualitative methods. For example, rather than separating data collection and analysis, we are often

reflecting on our data throughout the course of its collection and thus altering the collection as we go. As a result, researchers need to be responsive to circumstances as they exist – we do not use controls. Therefore, a marker of good qualitative research is in its variability, rather than standardisation (Popay, Rogers et al. 1998). I have provided evidence of this in that the thematic guide used for the interview evolved and was redesigned. The guide changed four times during the interview process. For example, in the interviews it became apparent that a key theme was that participants' trust often differed in times of emergency compared with regular GP visits. For this reason, a question was added which set up two hypothetical situations, one in an emergency situation and one where the participant was at a regular GP consultation.

Popay, Williams et al. (1998) suggest that in quality qualitative research, the sample must produce the type of knowledge necessary to understand the structures and processes within which the individuals or situations are located. They suggest that particular types of sampling influence whether the criterion of adequacy at the level of subjective meaning is met. Blumer (1979:156) suggests that 'A half dozen individuals with such knowledge constitute a far better "representative sample" than a thousand individuals who may be involved in the action that is being formed but who are not knowledgeable about the formation' (Blumer 1979). I chose to use purposeful sampling which is based on both empirical and theoretical underpinnings. This ensured that the sample population produced the type of knowledge needed to investigate social theories of trust.

Evidence of adequate description

The ability of a researcher to provide an in-depth description is a marker of adequacy with regard to the richness of the picture given to the reader. The key is to provide a description that is detailed enough to allow the reader to interpret the meaning and context of what has been researched. Geertz refers to thin versus thick description, whereby thin description merely states facts independent of circumstance whereas thick description provides the context and exposes the experiences as a process (Geertz 1973). An indication of thick description and consequently authenticity is evident in text that provides depth regarding the accounts and observations of the research (Popay, Rogers et al. 1998). I have

addressed this criterion for excellence in qualitative research by providing thick descriptions of the qualitative data (see Chapter Five on qualitative findings).

Evidence of data quality

Popay, Rogers et al. (1998) suggest that subjective perceptions and experience must be treated as knowledge in their own right. This idea fits in with the overarching epistemology of this research. As a researcher I bring certain assumptions and interpretations that must be acknowledged. It is argued that in any research text, it is necessary to examine and acknowledge the ways in which the data have been shaped by the researcher's questions (Plummer 1983).

> *Given the involvement of the researcher in the research process, the question is not whether the data are biased, but to what extent has the researcher rendered transparent the processes by which data have been collected, analyzed, and presented. Qualitative research treats all data as the product of interaction thus the time, extent and nature of the researchers' involvement have to be extensive if the complexities of accounts and social situations are to be adequately revealed (Popay, Rogers et al. 1998:348).*

In addition to providing a detailed account of the collection and analysis of the data, I transcribed the interviews verbatim and transcripts were reviewed for accuracy by the supervisory team. Seale (1999:148) suggests that verbatim transcription can add to the reliability of qualitative research:

> *Recording observations in terms that are as concrete as possible, including verbatim accounts of what people say, for example, rather than researchers' reconstructions of the general sense of what a person said, which would allow researchers' personal perspectives to influence the reporting (Seale 1999).*

Evidence of theoretical and conceptual adequacy

In qualitative research, researchers should be particularly concerned with interpretive validity, which requires a degree of reflexive accounting on the part of the researcher. Therefore, in my discussion (Chapter Seven) it is evident that I have made constant comparisons back to the theory to determine if the statements of the participants represent the theory. I have outlined the discussion in terms of the theoretical investigations to demonstrate the differences/similarities between the theoretical frame and the findings. In addition, as noted above, I constantly

compared the data with the theory as well as altering the thematic guide to investigate further unexpected findings.

Potential for assessing typicality

A central concern in any single study is whether the findings are generalisable and this is problematic in qualitative research. Popay, Rogers et al. (1998) suggest that the main point to highlight is that generalisation from a case study or a small theoretical sample is of a different order to the kind of generalisation that one can make from an experiment or a survey. It is for this reason that I have investigated the theory in a quantitative survey as well as through interviews. Both methods are investigating the same theory but the findings of the quantitative survey are more generalisable because they are taken a random sample of the Australian population rather than a specific group of individuals (participants with CHD).

4.32 Ensuring quality in quantitative research

The following outlines how quality in the quantitative component was addressed using methods of validity, reliability, sampling and data analysis.

Validity and reliability

Validity refers to the extent to which the research measures what it purports to measure (Collingridge and Gantt 2008). As outlined earlier in the methods section, prior to distributing the survey, face and content validity were verified. In addition, a pilot study was conducted as a means of ensuring the reliability of the survey, measuring both test–retest reliability and inter-item reliability. Collingridge and Gantt (2008:390) suggest that:

> *According to the quantitative research paradigm, our methods are considered reliable if they are sufficiently free of bias to consistently produce the same results given similar contexts. Methods that are reliable in the sense of being free from bias are thought to provide us with an accurate representation of the natural world (Collingridge and Gantt 2008).*

While external validity has been addressed using test–retest reliability, one of the limitations of this research is that it does not have internal validity. Internal validity is achieved if the researcher can conclude that the independent variable (age, for example) or intervention caused the dependent variable (trust, for example) to change (Morgan, Gliner et al. 2000). I have made inferences in my quantitative

findings that as a dependent variable the extent to which people trust differs based on certain independent variables. However, I acknowledge that because I have not manipulated the trust variable, I cannot argue a causal relationship between trust and the independent variables (age, for example). Instead, I argue that there appears to be an association between two or more variables. Although I cannot argue that this research has internal validity, I am aware of the implications this has for the quantitative data.

Sampling

Respondent sampling in quantitative research should typically aim to achieve a degree of random selection as a means of enhancing the generalisability of the results (Collingridge and Gantt 2008). Danermark, Ekstrom et al. (1997) suggest that the most crucial question a researcher must consider is whether the studied cases are representative of the entire population. While there are arguments for non-response bias (Bowling 2009), I acknowledge that people who choose to respond to surveys may be demographically similar and I have not accounted for the difference in characteristics of respondents and non-respondents due to time restrictions. However, I have tried to collect data from a representative sample by taking a simple random sample (Bowling 2009) of the Australian population using the electronic white pages. A sample of 1044 participants as a small scale representation of Australia can never be an exact replica of what the findings may be if all Australians were surveyed; however, in many respect it will resemble it closely (Hedges 2004).

Although there are limitations in making generalisations about a given population when drawing conclusions about a fairly stable reality, the risk of the generalisations proving to be false are small (Danermark, Ekstrom et al. 1997). Although individuals' trust may change over time based on social realities (individual experiences, current political/economic affairs, etcetera), I am not claiming that the generalisations made will be consistent over time. In addition, it is these circumstances that shape the generalisations made, and the response rate of the survey conducted in this thesis has provided opportunity for me to draw empirically general conclusions. The method of data analysis of the survey has also allowed for this in that both bivariate and multivariate analyses have provided insight into generalisations that can be made on the basis of age, sex, SEIFA score, health status and income.

Data analysis

One of the biggest mistakes made by people doing quantitative data analysis is failing to determine how they are going to analyse their data prior to collecting the data (Bryman 2001). Bryman (2001) argues that prior to collecting quantitative data the researcher must consider how the data will be analysed, because not every technique of analysis can be conducted with any variable. Prior to the survey development and data collection, the means of data analysis were established.

The data entry was completed in a rigorous manner. As noted above, following data entry, the data were cleaned by means of running frequencies. The SPSS outputs indicated whether any obvious errors occurred when entering the data. All variables were categorical so by running frequencies it was obvious that data were miscoded if the codes fell outside the normal range (Bowling 2009).

The errors that were not obvious were those where data had been coded incorrectly but still fell within the normal range. As a way of checking for these errors, the data were checked for consistency by another post-graduate researcher. Although consistency checks will not eliminate all of the errors that might be introduced during data coding and input (Bowling 2009), these checks were used as another method of ensuring the accuracy of the data analysis.

In Chapter Four I have outlined the design of the qualitative and quantitative components of this thesis. This included piloting, sampling strategy, recruitment, data collection, and data analysis. Throughout this chapter, the overarching methodology was discussed and the ways in which each of the four selected forms of inference (inductive, deductive, abductive, and retroductive) were highlighted. This thesis now moves on to Chapter 5, the qualitative results.

Chapter 5: QUALITATIVE RESULTS

5.0 Introduction

The first results section includes data from the qualitative research component of this thesis. The qualitative component aimed to meet objectives 2–6 of this thesis. These objectives were to explain and explore the role of SES, CHD risk and other social factors (including experience, sex, and age) affecting trust and reflexivity; investigate how lay individuals conceptualise trust; and to explore the nature and extent to which trust influences patient compliance with dietary recommendations. As noted above, the overarching aim of this thesis is theoretical development. Each objective was developed to achieve this overall aim. As such, the data have been analysed with specific attention to the objectives outlined above.

As noted earlier in the methods, participants were identified as being higher risk or lower risk, and higher or lower SES (comparatively within the group of participants). Higher risk CHD participants were defined as patients who had had some form of cardiac event/heart surgery but not including stents or angiograms. Lower risk patients were defined by being on medication to lower their serum cholesterol level and/or had had angiograms or stent(s). SES was determined based on a number of criteria; knowledge of the given subdivision, total annual household income, education, and an index of relative socio-economic disadvantage (IRSD).

Each of the 37 participants has been identified as either: higher risk, higher SES; higher risk, lower SES; lower risk, lower SES; lower risk, higher SES. Table 10 outlines the participants' ages, sex, level of CHD risk, and SES (higher or lower relative to the participant group). In addition it provides a brief vignette of each participant.

Table 10: Qualitative participant profiles with regard to age, sex, CHD risk, and SES

Name of Participant	Age (years)	Sex (M/F)	Level of CHD risk (H/L)	SES (H/L)	Vignette
Sugar	68	M	H	L	Retired builder living with his wife of many years who loves to play golf.
Bella	65	F	L	H	Widow living near the beach with her dog named Bella.
Danielle	57	F	L	H	Wife of Steve living in a retirement village.
Lucy	73	F	L	L	Wife of Ryan living in a

					retirement village.
Ryan	77	M	L	L	Retired teacher, husband to Lucy.
Steve	66	M	L	H	Retired bank manager, husband to Danielle.
Ann	66	F	L	H	Friend of Bella, also a widow.
Heather	72	F	H	H	Retired teacher and friend of Bella and Ann, also a widow.
Eddie	80	M	H	H	Husband of Ruth, retired scientist.
Ruth	76	F	L	H	Ruth, headstrong retired nurse, wife of Eddie.
George	65	M	H	H	Single father and dedicated employee who does not want to retire.
John	69	M	H	H	Retired professor and carer for a terminally ill wife.
Mary	62	F	H	H	Loves to swim, wants to lose weight and is nervous about going back to work.
Cindy	71	F	H	L	Proud mother and grandma living each day to the fullest. Makes an excellent picnic.
Sam	50	M	L	L	Cared for his wife with MS until she passed away. Retired.
Robert	58	M	H	L	Loves to dance and was shocked by his heart attack.
Jeff	61	M	H	H	Painter and brother to Claire.
Leslie	72	F	L	L	Shy widow who participants actively in many community events.
Trish	73	F	H	L	Hairdresser caring for husband with severe type two diabetes.
Will	75	M	L	L	Great sense of humour. Good friend of Carrie and Jim.
Carrie	77	F	L	L	Headstrong women, wife of Jim and friend of Will.
Jim	76	M	L	L	Quiet man who loves to give friend Will a hard time, husband of Carrie.
Fennel	73	F	L	L	Scottish women who makes great tea and loves her granddaughter's shortbread.
Jill	82	F	L	L	Retired nurse who is determined to stay off cholesterol medication.
Dylan	52	M	L	H	Father of three, works for Australian Defence.

Mark	45	M	L	L	Recovering alcoholic working hard to maintain sobriety, eat better and quit smoking.
Mike	52	M	L	H	Worked hard to lose weight with his wife and has maintained what he terms a healthier lifestyle for the past 20 years.
Ken	76	M	L	H	Retired gentleman with a great sense of humour.
Lexi	32	F	H	H	Mother of two young children with congenital heart problems.
Claire	73	F	H	L	Proud grandmother, retired and living by the beach caring for ill husband. Sister of Geoff.
Paul	60	M	H	H	Retired husband who cannot say enough about how wonderful nurses are. Loves hunting.
Horace	68	M	H	H	Extremely hard working Aussie bloke.
Jack	74	M	H	L	Creationist, retired, living with wife near the beach.
Larry	65	M	H	H	Excellent musician and dedicated volunteer.
Philip	62	M	H	L	Proud father of three, loving husband, electrician.
Roger	61	M	H	H	Wonderful musician, husband to a general practitioner.
Harvey	69	M	H	L	Loving grandfather, retired greyhound breeder and racer.
Total	Mean: 66 Median: 68	22M/15F	18L/19H	18L/19H	

5.1 Results

As outlined in the methods section, this thesis used first, second and third order analysis to arrive at the most prominent and relevant conceptual categories outlined below. These categories are interpersonal trust and institutional trust. They have been chosen as areas of investigation based on the theoretical frame outlined in Chapter Two and as a means of meeting the objectives. As noted above, as a point of further theoretical investigation regarding the social factors affecting trust, the following data have been analysed specifically to investigate risk and SES. In addition to these findings, data that were unanticipated are presented. When

discussing the role of trust in compliance with participants other concepts including reflexivity and risk arose. For this reason, the final section of the qualitative results chapter deals specifically with the role of reflexivity and risk in compliance.

5.2 Interpersonal trust

Participants were asked about their trust in different healthcare professionals. These professionals included GPs, dietitians, cardiologists, and surgeons. In order to investigate components of the theoretical frame including familiarity, interpersonal trust, and generalised trust participants were asked to discuss to what extent they would trust a doctor they had never seen before. In addition, the higher risk participants who were admitted to emergency departments following their cardiac events were asked about the extent to which they trusted the healthcare professionals they met in hospital whom they had never seen before.

Lower risk, Lower SES participants

The findings for interpersonal trust in lower risk, lower SES participants were inconsistent. Some of the participants' responses indicated that they trusted the field of medicine and thus have generalised trust in the medical professionals within the system, while others talked about interpersonal trust as something that is developed over time between a doctor and patient. In addition, some of the lower risk, lower SES participants said that they had never considered whether they trust their specific GP because they had never had medical problems that they identified as serious enough to require 'trust' in their GP's advice.

Three of the participants identified as lower risk, lower SES said that they trusted healthcare professionals because they are the experts: 'you've gotta trust somebody somewhere. And I think your doctor is the first step on the line' (Ryan). Marc suggested that it is the field that he trusts: 'I mean, you know I wouldn't go to a cardiologist because I had a sore foot. You know. I trust people – they get my priority of trust if that's their field. And if that's, that's what they do', which indicates interpersonal trust but also institutional trust. He trusts that the system of medicine has experts trained within the specific field. Similarly, Fennel said she trusts doctors because 'I trust them, hen. Well you do – you put your life in their hands. They know what they're doing – you don't. I would trust them all.' Fennel's response also indicates that she does not trust one specific doctor but rather, she would trust them

‘all’ – this suggests a level of generalised trust in the field of medicine or the healthcare system.

Responses also indicated that some of the patients had never considered whether they trust their doctor. Three of the participants said that they had never needed to trust their doctor because they had never had medical problems that were serious enough to require ‘trust’. When discussing trust in his new GP Marc said: ‘I haven’t had any sort of issues of trust or distrust with my current GP.’ Leslie says she has never had to trust her doctor because she was just seeing her GP for ‘normal things’. The findings here suggest that because the participants did not see their GPs for what they saw as serious medical problems, they have not had to consider whether they ‘trust’ the advice of their GP.

Five of the participants had not had what they would perceive to be serious health problems. As a result, they said that they have never needed to ‘trust’. However, other lower risk, lower SES participants said that doctors must earn patient trust. When asked if Sam trusted his GP who had just retired he replied: ‘got to learn to trust him’ and that his trust developed over time. This indicates that familiarity and time are factors influencing Sam’s trust in his GP. Similarly, Lucy and Ryan suggested that familiarity plays a role in trust. While they would trust any of the doctors in the clinic they go to, they would not trust just any doctor outside of their clinic: ‘our local clinic that we’ve gone to for so long has all our medical records. We just wouldn’t shop and change.’ Lucy and Ryan’s responses are also similar to Fennel’s in that they trust the clinic they go to, not necessarily the individual practitioners. Their responses indicate that they trust in the clinic as a system and as a result, the doctors within the clinic.

The theme of dependence emerged when discussing interpersonal trust in emergency situations. When discussing situations that required immediate medical attention, they talked about how they had no choice but to ‘trust’. Ryan said that in emergency situations you have to trust doctors because:

> *They’re [doctors] the ones that have the knowledge and they’re the ones that are in control of medicines and things like that. Where else are you going to go? I mean, you just have to do that. You’ve gotta have trust in – there are some people you know you’ve gotta have trust in (Ryan).*

This comment indicates dependence because Ryan suggests that the doctors have 'control' of the medication – they act as gatekeepers to treatment. In this situation, there is an asymmetry of power because doctors are the ones in 'control'. If participants require medication, they have no choice but to see a doctor. Carrie also discussed dependence on doctors in emergency medical situations,

> *You haven't got any choice [to trust] though because I mean, you know, you're given a pre-med while you're in bed. Somebody wheels you down and then when you open your eyes you're back in your bed and for all you know, the bloke sweeping the floor could have done the thing. You don't know (Carrie).*

In this situation, Carrie does not trust the doctor who is performing the operation but rather, she is suggesting that she has no agency in emergency situations. She is dependent on both the system (the hospital) and the individual to provide medical care.

Lower risk, Higher SES participants

The lower risk, higher SES participants' responses indicated that they are reflexive regarding their trust in GPs. Many have doubted information from GPs and some have made the active choice to change GPs. Participants' responses indicated that increased reflexivity regarding medical advice is a sign of the times, the result of modernity. A couple, Steve and Danielle, said that ten years ago people just trusted in 'people with some sort of authority' (including doctors) but that there seems to be a change in 'people's attitudes' regarding professionals. Steve and Danielle have made a 'choice' of GP because there are certain qualities that have influenced trust in their doctors. Ken was also reflexive in his decision to trust his GP 'they've got the knowledge – they've got the experience. And ah, you don't trust your GP you go elsewhere don't you?' While he does say that they are the 'experts' he also indicates that as a patient, there is a level of agency and choice involved in selecting the individual medical professional a patient consults.

Marc provides a similar viewpoint that his trust in doctors stems from his overall trust in the medical system. Dylan also said that his trust in individual healthcare professionals is the result of trust in a system. Dylan is part of the Australian

Defence Force and said that he trusted most of the doctors in Defence because they are part of the Defence system:

> *In more recent years we started getting more civilian doctors on contract working there who weren't usually aviation medicine qualified…I tended to avoid the civilian doctors. Some of the civilian doctors were sort of locums – they would blow in – you're often better off with the Defence doctors – they've been around for a while (Dylan).*

Ann, similar to Danielle and Steve, suggested that her trust is based in a system (a specific medical clinic). She said that she trusts the clinic she goes to, not necessary the doctor she sees. With regard to trust in all medical practitioners, Ann said that she would trust any doctor 'once I got to know them' and that it takes a while to build trust, which is similar to some of the lower risk, lower SES participants who suggested that trust is something that doctors must earn.

Similar to the lower risk, lower SES participants, two of the lower risk, higher SES participants said that they have not had problems with their health that they perceive to be serious enough to warrant a decision to (dis)trust. When asked about her trust in her GP, Bella said 'never really having had any real illnesses to worry about – so it'd just be sort of adjusting the system really.' She never felt a need to trust because she did not see him for anything 'serious'. Dylan said that he is required by work to get a physical examination every 12 months. When asked if he trusts the doctors that do the routine check-ups, Dylan said that he had no reason to (dis)trust the doctor that did the medical because 'I mean it's a standard sort of medical. They take your blood, they do your eyesight, your hearing and...' Because he is not seeking medical information/advice at the yearly visits, there is never a situation where trust was required. Dylan's response may indicate a level of dependence in that he is required to have these tests to continue working so trust is not an option – he has to see a Defence doctor who is qualified to perform the annual medical. Because the doctor is hired by the Defence system, the doctor has control or power over Dylan's employment. Dylan has no choice but to get his medical. It may also suggest routine trust. Given that Dylan has been having these tests every 12 months since he began with the Force, he may no longer consider whether he trusts the doctor to perform the tests that have become routine. However, as suggested earlier, it may be that Dylan has systemic trust in the Defence system and as a result, the doctor associated with that system.

In addition to Dylan, two other lower risk, higher SES participants suggested a level of dependence on healthcare professionals. Dependence was evident when Ann said that if she was sick enough she 'wouldn't care who [what doctor] it was as long as they could help' and that she really would not have a choice when she needed immediate medical advice.

Higher risk, Higher SES participants

The findings regarding interpersonal trust in the higher risk, higher SES group were inconsistent. Some of the participants said they trusted healthcare professionals while other participants' responses indicated that they were reflexive regarding their decision to trust. The reflexive participants discussed doubt in medical professionals or situations where they have questioned information from healthcare professionals.

Some of the participants trust both their GPs and/or cardiologist although they are reflexive in their decision to trust. When discussing his cardiologist, Horace spoke of how he initially ignored the cardiologist's recommendations and ended up having serious complications as a result. He now trusts his heart specialist and cardiologist because the advice they gave him proved to be correct: 'They've [his doctors] proven to be professional. They shouldn't have ever had to, had to prove to be professional. It was me who didn't listen.' For Horace, the doctor's advice had to be 'proven' before trust was initiated.

Paul also demonstrated that he is reflexive in his decision to trust his cardiologist. He said that he trusted his cardiologist because he was recommended to him by the GP whom he trusts – he did not trust blindly. Similarly, Roger chose his cardiologist and GP which is why he trusts them. Roger has private health insurance cover and said: 'well they're the first people I've chosen anyway to be my doctors so I've chosen, I've decided to trust them to deal with the problems so I trust that they have the information that I need.' He indicates not only reflexivity but also agency in his decision to trust.

Similar to some of the lower risk participants, when asked about interpersonal trust in his GP Horace's response indicates that he has institutional trust in his GP's clinic, not necessarily interpersonal trust in the specific GP. Horace chose the clinic he goes to because 'they had a very different philosophy and they sort of head-hunted doctors that fitted in with their philosophy. I wouldn't question whoever doctor I get, get to see – I wouldn't question any of them.' When asked if he would trust

doctors outside of the clinic he said: ‘I’d do so very much with both eyes wide open.’ He said he has generalised trust in the doctors at his specific clinic but that he would be sceptical of doctors outside of his clinic. This indicates institutional trust in the clinic, not necessarily the specific health professionals at the clinic.

Jeff’s response also indicates institutional trust when he was asked about his trust in medical professionals. Jeff said he trusts his dietitian because ‘she’s a dietitian and she works for the hospital’ and because he trusts the hospital to employ people who are qualified. Jeff also said that he trusts his cardiologist because ‘he’s a doctor’ and that because he had no control over who did his operation, he trusted the hospital to provide him with a good surgeon. Jeff’s responses indicate institutional trust in the hospital or medical system to provide trustworthy doctors. However, while this indicates institutional trust, it may also indicate dependency as there is a lack of agency or control in Jeff’s ability to choose which doctors to ‘trust’.

Similar to Jeff, George also discussed institutional trust when asked about trust in healthcare professionals. He says he trusts his heart specialist because ‘I presume that he’s studied for many years to know what he does about hearts. I mean, he wouldn’t be doing that job would he?’ He says that he trusts the system to make a correct choice in hiring qualified staff: ‘I mean I, it’s quite strict isn’t it?’

Higher risk, higher SES participants’ responses indicated reflexivity in their trust in healthcare professionals with many indicating that they have doubted information from healthcare professionals in the past. Larry said that he trusts his GP but with reservations because you can ‘never trust any doctor really.’ He went on to discuss that whether he trusts a healthcare professional is dependent on the risk involved in the medical problem:

> *Well I mean would you trust them with your life? Or would you trust them you know, when you’ve got a bit of a cough? You know, there’s a bit of a difference. You can trust somebody to take a splinter out or whatever but ah, I mean, even if you’ve made some sensible comments, if you’re going to start playing around with anything serious, you know, brain or the heart or whatever, you’d like to know a bit more about it – you’d like to see him in action and... (Larry).*

Lexi is also sceptical of following the doctor’s orders blindly. Lexi says that she trusts her GP and that her trust ‘definitely’ has to do with the fact that she has been seeing

her for a long time which indicates that familiarity plays a role in her trust. Although she has doubted information from her cardiologist, she trusts her cardiologist because of his reputation: 'he's got a very good reputation. I know he's the head of the cardiology at the Waterloo Hospital. Plus I mean, he's, he's an older doctor. He's got lots and lots of experience.' Her response indicates that her trust in the hospital (institutional trust) plays a role in her trust in the cardiologist. Similarly, Mary was uncertain about her trust and chose to seek out a

> *…good GP because I don't just want a GP that takes your Medicare card, writes you a script and wants to get patients in and out. I really did look around for people that cared. So you know, the practice I go to, I trust, I trust most of the doctors there (Mary).*

Mary describes a level of agency and reflexivity in her decision to choose and trust her GP, but similar to other participants Mary also indicates a level of institutional trust in the clinic that she attends. However, unlike some other participants she also said that she has reservations about trusting all of the doctors in the clinic she goes to. She says that each of them individually needs to earn her trust. John also said that he trusts his GP and cardiologist because they earned his trust. John, similar to Danielle and Steve, noted that the relationship between the GP and patient is changing and he now plays an active role in making health decisions whereas before:

> *…at least one, maybe two generations ago and more, where they told you as little as possible and ah, they'd answer you if you knew which question to ask but they wouldn't really tell you very much and they… it was "so I am the expert, you wouldn't understand" (John).*

John says he is likely to second guess or question his GP because he is very cautious of the fact that GPs prescribe what the pharmaceutical companies are pushing at the time: 'those things make me a bit sceptical I'm afraid. And so I ask questions.'

The theme of dependence emerged when speaking with higher risk, higher SES participants. When asked if she trusts information from her doctor and cardiologist in general (not specific to her heart) Heather said: 'Yeah. Well you have to. I mean, if you're not an expert you have to rely on somebody. You have to rely on somebody who is supposedly the expert.' The expert knowledge that doctors hold grants a

level of power as participants are reliant on them. Similarly, Eddie says he trusts his GP and that he has never doubted any information from him because 'I'm just sure he knows what it's about' because he is an expert. This may indicate dependency or a lack of reflexivity.

The theme of dependence was evident in each of the four groups of participants but access to private healthcare was a factor that influenced the level of dependence participants felt they had on the system. Dependence was a theme that was talked about in both emergency situations and in routine visits because doctors are the gatekeepers of medications and referrals to specialists. However, private patients such as Lexi and Mary had a choice of their cardiologist and of their GP. As a result, although they are dependent to some extent, they have more agency in their medical decisions. Mary said that when she was not happy with her GP, she sought out another. Public healthcare patients, unlike patients with private care, do not have as much agency when it comes to medical decisions because they do not choose the health professional they see – they consult whichever doctor is available at the time.

Higher risk, Lower SES participants

Findings from higher risk, lower SES participants were inconsistent. Responses varied, with some participants indicating that they had specific trust for individual doctors. Other participants indicated that they had no reason not to trust doctors while several other participants' responses indicated that they were dependent on doctors.

Philip discussed his dependence on his surgeon rather than his trust in the surgeon: 'Oh yeah. I had to, didn't I? I had to trust him because he was, he cut me, cut me open. I would trust him, well I did, I trusted him with my life didn't I?' Again, this demonstrates power on the part of the medical professional and dependence on the part of the patient. Philip's lack of agency makes him reliant on the system. Jack discussed his dependence on medical professionals. When asked if he would trust a doctor who he had never seen before he replied: 'Yeah I think, I've got no alternative because if I saw a doctor that I've never see before it would be some sort of an emergency situation so I've got no, no alternative but to, to believe and trust what he says.' Jack's response indicates that risk (an emergency situation) is a factor influencing dependence. Similarly, Bob and Cindy's responses indicate that risk is a component of dependence. Bob says in situations where he is not familiar with a

doctor, he has to trust them – he has no choice: 'I'm not the medical person, I don't have the expertise that they have…' He also discussed dependence on the system when he suggested that despite medical errors 'you still have to trust the healthcare facilities' and his wife added 'you don't have a choice.' Similarly, when asked if she would put her life in the hands of any doctor Cindy said 'in a desperate situation, when you say "would I put my life in any doctor's hands", depending on the circumstances.' The level of risk involved in a situation has an influence on Cindy's decision to 'trust'.

Participants' responses also indicated that they trusted specific healthcare professionals because they had certain trustworthy characteristics. Jack said that he trusts his GP because 'I always feel comfortable with him [GP] and yeah…' he is a 'well qualified heart specialist [cardiologist].' His qualification can be seen as a trustworthy characteristic but also a component of institutional trust. The qualification itself may be trustworthy which would indicate that Jack trusts the educational system granting medical qualifications. Bob also talked about certain trustworthy characteristics in his GP who he trusts because

> *…he's always explained – look whatever I've gone to see him for he's explained, he's gone into details. He, he doesn't write anything off without doing tests for, for further examinations – whatever. And through the process of elimination as opposed to my previous GP who had the approach of, "ah it's nothing – you'll be alright" (Bob).*

Bob has been sceptical of doctors in the past so he has reflexively chosen to see another GP who he trusts. Similarly, Sugar also said he trusts his GP because 'he's very fast but he's on the ball. He doesn't waste any time with you.' Sugar also discussed institutional trust saying that he trusts his GP because he is a studying doctor and 'he keeps up with everything.' Again, this indicates trust in the education/medical system behind his GP's training.

The findings also indicated that interpersonal trust in one individual can play a role in influencing a participant's interpersonal trust in another. In keeping with Paul's comments, Claire trusts her cardiologist because she was recommended by her GP. Her trust in her GP also influenced her trust in the dietitian. When she was asked if she trusts the information from the dietitian: 'well I would have thought so. You know, if it's been recommended to me by a doctor, it should be' although her response also indicates a level of uncertainty.

Some of the participants said they trust certain healthcare professionals because they have no reason not to trust them. Harvey said that 'you've got to' when asked if he trusts his GP 'you wouldn't go to him, keep going back there if you didn't.' He would also trust a doctor he has never seen before because 'no doctor's let me down so far so why would I, why would I have doubts?' Unlike his trust or dependence in the surgeon, Philip discussed the ambiguity in his feelings about trusting his cardiologist:

> *See well I don't really know if I trust – well I don't trust or distrust him because all I… he was just another doctor you know, he didn't do anything to me to trust him or distrust him… I was just part of the conveyor belt if you like… So as I say, no disrespect, I'm not, but what I mean, I have no reason to trust or distrust him. But of course I would put my, put my life into him as I did with the surgeon of course being, being the man with the brains he's obviously got and he knows exactly about the heart. He knows exactly what to do and what to say anyway (Philip).*

Philip did not know whether he trusted his cardiologist because he has never had to think about it. Similarly Claire also said she trusts her GP because 'I don't think he's given me any wrong things to worry about.' While the participants are suggesting that they have no reason not to trust, their responses indicate that they have never been put in a position where they have had to consider whether they trust or not. With regard to their GP, they have never been presented with a situation where trust is required. This indicates a lack of reflexivity or, consistent with Luhmann, that the lack of perceived risk the participants see in their medical decisions means that their decisions do not require trust.

Six of the participants trusted doctors because they had grown up seeing doctors as individuals who were to be respected. After allegedly being misdiagnosed, Cindy says she still trusts the GP who made the error because 'okay you know your doctor's not God but you've gotta admit they come pretty close to it. And ah… Yeah. And they can only really – I mean, they're also human.' The doctor who misdiagnosed her is the only doctor that works on Sundays and she said 'if I was there every Sunday and he was there every Sunday, I'd be, probably take a little bit more responsibility and maybe give him a little bit more information.' She indicates that she does play an active role in the decision to trust – she has a responsibility as

an active agent in a trusting relationship with a doctor. However, contrary to earlier participants who suggested the role of the doctor is changing, participants Leslie, Jill, Carrie, Jim, Will, and Cindy trust doctors because they have grown up respecting professionals. Cindy said:

> *It's the same with anybody that has gone to the trouble to put years of study to learn something and to gain that knowledge – then, at least respect it, you know. That's what I'm trying to say is. I don't feel it's up to me to question it (Cindy).*

Cindy 'trusts them [doctors] wholeheartedly' because she grew up seeing doctors as authority figures who deserve respect.

Summary of interpersonal trust

The findings indicate a connection between interpersonal trust and level of CHD risk. Higher risk participants' responses suggest that they are dependent on healthcare professionals, especially in situations of emergency. In contrast, the lower risk participants did not discuss dependence because they have not been put in situations of emergency where they required urgent access to medical attention. Rather, in discussing their CHD, they have been able to reflexivity consider whether they trust the information being provided.

The findings also indicate a difference between higher and lower SES participants with regard to interpersonal trust. Higher SES participants were found to be reflexive about their trust in healthcare professionals. This was identified by higher SES participants' doubt in specific GPs and their active decisions to change GPs. Lower risk participants were found to be less reflexive. Several of the participants said that they have never considered whether they trust healthcare professionals, which indicates a lack of reflexivity. In addition, many of the lower SES participants said they trust doctors because they have grown up respecting them. Their trust is not something they reflexivity consider; they just trust.

5.3 Institutional trust

The previous section presented examples of participant responses regarding interpersonal trust. However, many examples of institutional trust were also presented because participants often discussed their trust in institutions when asked

about interpersonal trust. Presenting findings about institutional trust in the interpersonal trust section of this chapter was not an oversight but rather a way of making evident the relationship between interpersonal and institutional (system based) trust, as well as the confusion regarding the conceptualisation of the two types of trust. The fact that participants raised the issue of institutional trust when the interview questions were specific to interpersonal trust exemplifies that interpersonal and institutional trust, although defined and conceptualised separately, are not dichotomous. This proved to be a major component of theoretical verification and development because it provided further insight into the operationalisation and conceptualisation of trust.

In order to investigate institutional trust, participants were asked to discuss their (dis)trust in the healthcare system. The Australian healthcare system is two tiered, a combination of public and private healthcare. As a result, when asked about the healthcare system, participants discussed the system within which they sought medical care (public or private). In addition, in order to address how trust was operationalised (see Chapter Two), the participants were asked about their trust in the government. Many suggested the government plays a role in the healthcare system.

Lower risk, lower SES participants

The lower risk, lower SES participants said they trusted the healthcare system although many also discussed the problems they saw with the current system. Participants identified many flaws in the system, most of which revolved around the role of the government in the system; especially in terms of the role government plays in the healthcare budget.

Trust in the healthcare system was apparent when discussing trust in specific healthcare professionals. Similar to earlier discussion regarding trust in healthcare professionals, some of the participants suggested that they trust the healthcare profession because they have grown up learning that a doctor is someone who deserves respect, which indicates institutional trust – institutional trust in the medical profession, not necessarily the medical professional. Sam says he trusts his cardiologist because ‘I sort of trust in the field – it was the way I’ve been brought up with dad being a medico and that. You’ve got to learn to trust the medical professionals and all that – I tend to trust them all.’ Similarly, Carrie said that she was brought up respecting certain professionals:

> *You know, so I mean, I think probably, I think with our generation, because we were brought up respecting doctors, teachers and policeman – so anybody coming by who's in a white coat could say anything to you and you'd trust them. I don't think, query about it much. You know, so. So yes I suppose that is a matter of trust (Carrie).*

Carrie indicates a lack of reflexivity when she said that she does not query her trust much. This indicates that she does not 'trust' the professional specifically because she is not actively thinking about her decision to (dis)trust. It may be that she has generalised trust in the system itself – in the profession of medicine.

Ryan's response indicates a level of dependence on the medical system. When asked if he trusts the healthcare system Ryan responded:

> *Yes. If I didn't trust them, I mean, I just couldn't live in a world where you didn't have trust in the healthcare system. Alright, and so you know, you have still in the back of your mind, some feelings about the trust but honestly, you've gotta trust them (Ryan).*

However, when he and his wife Lucy were asked if their trust would change if they did not have private health cover Lucy replied: 'I don't think we'd ever be, we'd ever be willing to put ourselves in a situation where we only had access to the public system. I really don't.' Although they did not discuss the role of the government in healthcare directly, their response indicates that there are other systems that influence their trust in the medical system. The participants may be indicating that, without private cover, they would no longer trust the system.

Jill, a retired nurse, discussed some perceived problems with the system when she said: 'I've had no, no reason to doubt any treatment I've had and that over the years but there are people that are not satisfied with the treatment they've had. I think there is room for improvement.' While she said that she does trust the medical system, when asked if she trusts the government Jill said: 'Haven't got much choice have we?' Her response indicates a level of dependence on the government in that she has no 'choice' in the matter.

Jim, Carrie and Will all said they trust the healthcare system. However, they also discussed some of the current problems with the system. Although they have all had good experiences they discussed friends who had waited for emergency treatments

or elective surgeries and also the fact that with the ageing population, waiting lines are only going to get worse. Their problems with the medical system were directly related to the role of the government in the system. Carrie, Will and Jim all feel that the government is 'spending far too much money.' Conversely, Fennel is concerned about pensioners who have to pay for prescriptions and dental work because the government does not help: 'God help them.'

Ryan is concerned with the role the government plays in public health campaigns. He feels that information from researchers and professionals often 'goes through too many washes before it gets to the rinsing stage.' He would prefer to talk to a professional directly and is sceptical of information depending on 'how far it's gone through the system.' While he trusts information coming from a hospital, medical institute or university, he says he does not trust information from Canberra: 'When politicians dip their finger it's going to have some values of theirs – if possible.'

Lower risk, higher SES participants

Responses of participants identified as lower risk, higher SES indicated that they trusted the healthcare system, although similar to lower risk, lower SES participants, they identified several perceived problems with the system.

Three of the participants said they trust the system because they have no reason to behave otherwise. Danielle says she trusts the healthcare system because 'nothing bad has happed so far. To me, so… Until actually nothing happens to yourself or your family around you, you believe them. You trust it.' Her response indicates she will continue to trust until something happens to break her trust. Similarly when asked if he trusts the healthcare system, Dylan responded 'I think so. I've not had any reason not to trust it.' Both responses indicate that they will trust the system until proven otherwise.

Similar to Lucy and Ryan, Ann trusts the medical system because she has private health cover. Ann rolled her eyes when asked about her thoughts on the Australian healthcare system. She said that the system seems to be failing for some people in terms of waiting lines. She says she trusts the system 'in my case yes because I have private health but I'll never give up my private health cover.' When asked if he trusts the healthcare system Scott initially said 'not really no' but he went on to say: 'overall, having looked at the big picture, yes I do. Because if I, if I said I didn't trust it, I would have expected the whole thing to collapse. It needs a lot of improvement.'

While both Ann and Scott do not discuss the government directly, they do discuss external influences which impact on their (dis)trust in the medical system. The government and the economic system both play a role in the privatisation of medical care. This indicates that external systems do influence individuals' trust in the healthcare system. For example, Ann said she is concerned about the way the government is 'splashing' money around but she also said 'but I'm not an economist' or the expert. She indicates a level of dependence on the system because she is not the expert. When asked if she trusts that the economists have led the government to do the right thing: 'I think it comes back to hope. You hope they are.' She says that we do not have a choice in the matter: 'We put this government in power and we have to live with it.'

Lower risk, higher SES participants discussed their (dis)trust in the government and concerns about their current government. However, although the interviewer did probe as a means of facilitating discussion on the role of the government in healthcare, participants did not discuss the government directly in relation to healthcare.

Higher risk, higher SES participants

Participants' responses indicated reflexivity with regard to trust in the medical system. Many discussed the problems with the current system and identified the government's role in the healthcare systems as a concern. Despite their concerns, with the exception of two participants, John and Larry, the higher risk, higher SES participants trusted the healthcare system.

John and Larry did not directly say that they trust or distrust the system. Larry said that he trusts the system 'as much as anything' although he says that in his experience, the system is 'excellent.' John has also had good experiences with the system but thinks 'we still have a major problem between the private system and the public system.' He has private cover for his wife who is very ill and said 'I sometimes wonder if it wasn't for Nancy, I wouldn't have had private cover. Philosophically I probably I don't agree with it.' When asked if he trusts the system he said yes 'they are exceptionally well educated and ah, concerned caring professionals – profession' but did not discuss specifically his trust in the system. When asked to clarify he said 'Well it's ah – I suppose I should say I have trust in the, the medical practitioners. And generally – not just the surgeons and the medicos and so on – but all of them ah. But not necessarily the system.' John's responses indicate that he

feels that both the education system and the government play a role in the healthcare system. He suggests that the concerns he has with the system are the results of the two-tiered health system which indicates that he is concerned about the role of the government in healthcare.

Jeff is happy with the system saying that the first place he would turn to for healthcare information was the '…hospital. Whoever's there.' Similarly, Paul said 'I think it's very good' and he says he trusts the system. However, Paul also discussed the role of the government in the healthcare system which he feels is problematic. He says their control lies in the fact that they 'hold the purse strings' and they need to release more money.

As noted earlier, George trusts the system to make the correct choice of which doctors to employ. He indicates that there is a direct link between his trust in the system and his trust in healthcare professionals. He says he is happy with the healthcare system and that there are 'certain things that they can't help – like people getting heart attacks. I mean really, it's, it's almost our fault. They try their best to save you.' Similar to Cindy, he feels that he has a certain level of responsibility for his health.

Similar to participants in other groups, some of the participants in the higher risk, higher SES group said they trust the system because they have private health insurance. Heather feels that, in general, her experiences with the Australian healthcare system have been positive because she has private cover. Heather says that she has been lucky so far because 'I've had really good attention whenever I've needed it but then I'm under the private health cover as well and I think that does make a difference.' She said she would be concerned if she did not have private cover. Laura and Jeff are also confident in the system because they have private health insurance and Laura said 'at that age of our life now that we can't afford not to have it.' When asked if they trust the healthcare system they said 'We have no reason not to.' Lexi says the Australian healthcare system is 'good in comparison to a lot of others' but similar to other participants she 'wouldn't be without' private health insurance.

Similar to John, Mary's response indicates that she is concerned about the two-tiered health system. She says that since her heart attack she has started questioning the healthcare system. Prior to the heart attack she was 'very anti public

hospitals' but since being in the public system's emergency department 'I just feel very confident with public hospitals and the people working in public hospitals and the doctors and the nurses in there.'

However, despite her confidence in the public system, Mary also said that in emergency situations, patients are dependent on the system: 'I think when you're in an emergency you have to have trust in the medical system. For emergency things you do have to trust them.' She feels that the dependence is a result of the risk involved in an individual's health but also because of how vulnerable one is in an emergency situation which influences individuals' behaviour:

> *In an emergency, in the initial stages which has just happened to me I do whatever they say because I'm scared, I'm you know, I'm vulnerable and all the rest of it. When you just start getting over that as it happened to me, then you start "hey hang on!" (Mary).*

When asked about how she felt about the government Mary said that 'as far as governments go with hospital and mainly public hospitals, I think the government should be putting more resources into making sure that whoever needs care, gets that care as quickly as they possibly can.' When asked if she trusts the Australian government Mary said: 'No. And it doesn't matter what government's in – you know, I just wonder where all the money for hospitals goes.' Similarly, Roger feels that the main issue with the healthcare system is funding and it is an underfunded system that 'could be better.' Heather is also concerned about the role of government in healthcare and feels it should be a federal problem rather than a state problem. Horace too feels that the government is playing a negative role in the healthcare system. He feels that the way the government controls the healthcare system is 'teaching people to be social welfare cripples. We give people too much for free. I'm one of the one-third of Australians that supports the other two-thirds.' When asked if he trusts the healthcare system, Horace said: 'yeah I do trust the system but their hands are tied, they're linked very much to the government policy aren't they?' He says that he trusts the medical side of the system but not the part that is tied to the government. Jeff also feels that the government has a big role in the healthcare system and that they need to 'pour more money in to the hospitals.'

Paul also feels that the government has made some poor choices with regard to spending the healthcare budget. He says that he's happy with his access to

healthcare but that 'I still think they, government, should be spending more money.' When asked if he trusts the government he said 'Well I, I, I think this government is better than the previous one but I would not entirely trust a politician nor would I trust a lawyer. But I would trust a nurse and a doctor – maybe even a police officer.' Paul's response indicates interpersonal distrust – it is not the government that he does not trust but rather politicians and lawyers. Along with Jeff and Paul, Lexi is unhappy with the way the state government is spending the healthcare budget. When asked if she trusts her government she said: 'um 50/50. I am a bit undecided. I find that they make a lot of rash decisions.' John also has concerns about the government because it is 'always controlled by vested interests, to varying degrees. The better governments stand out against them.'

Higher risk, lower SES participants

All of the higher risk, lower SES participants trusted the healthcare system. However, in contrast to the finding from private healthcare holders who suggested they would not go without private care, many of the higher risk, lower SES participants talked about how happy they were with their public healthcare.

Claire says she is more than happy with the healthcare system as a public patient. Harvey said he trusts the systems because they've always been there for him 'every time that I've needed help.' He used to have private cover but said that one day he decided they did not need it because in emergency situations, you always go to public hospitals: 'So for that sort of emergency, you're in a public system and it works fine.'

Two participants suggested that they trust the system because they have never been given a reason to feel otherwise. Philip trusts the system because 'they've never let me down. I've never been let down by nobody in the medical system and I'd thank any one of them. Every one of them.' Similarly, when asked whether he trusts the current Australian healthcare system Sugar replied: 'Haven't had any reason not to.'

Although Cindy trusts the healthcare system, her response indicates a level of dependence on the system. When asked if she trusts the system she said yes, because 'let's be honest, if I don't trust them, who else am I going to trust?' However, despite not having private insurance Cindy said,

> *I still think we've got the best, the best in public hospitals. You know – it's not always perfect but I think we have the best surgeons, the best professors, probably the best knowledge going through our public health system (Cindy).*

Some of the higher risk, lower SES participants also discussed the role of the government in the healthcare system. Robert talked about how unhappy he is with the healthcare system. He says the government has control over the finances and therefore: 'although it's nice to say "you need this, you need that, this is what's going to happen", it doesn't always happen because big brother says "no, it's not going to happen".' Jack is also unhappy with the government and feels that they waste too much money on bureaucracy. He is concerned that the government takes 'their advice from academics who have done all their study behind a desk and have never been out in a field.' Jack is a creationist and is concerned that the people who are creating policy are evolutionists:

> *They don't, won't bend or look at any other and that's, I guess the thing that bothers me with academics mainly or generally – it's because that's what they're taught, what you believe. But there's other things to believe apart from what you learn in university (Jack).*

For this reason he says he does not trust the current government: 'No. I don't think you can trust any government.'

Summary of institutional trust

With the exception of two higher risk, higher SES participants, all of the participants trusted the medical system. The responses of the two individuals who did not trust the system suggest heightened levels of reflexivity with regard to the level of influence the government has on the medical system. Their distrust appears to be the result of their distrust in the government, not necessary rooted in the medical system. The findings also highlight the relationship between trust in the medical system and trust in healthcare professionals. Participant responses indicate that they trust specific healthcare professionals because they trust they system behind the professional.

Results did not indicate significant differences between participants with different levels of CHD risk or SES. All four participant groups identified problems with the medical system which indicates reflexivity. However, three of the lower risk, higher

SES participants said they trust the system because they have no reason not to. This may indicate lower levels of reflexivity than the rest of the participant group.

5.4 The role of risk and reflexivity in compliance

This thesis investigates trust as a factor in coronary heart disease (CHD) patients' compliance with dietary recommendations. As noted in the literature review, there is a body of literature around the limitations of the compliance and adherence models used in doctor–patient interaction research. However, the word compliance was specifically chosen as part of the research question in order to investigate the role of trust in patient compliance as a means of investigating agency and reflexivity; whether the trust was a prerequisite for compliance or if patients just 'follow the doctor's orders'.

It is unclear whether there is a direct association between trust and compliance. The findings indicate that participants have high levels of trust in healthcare professionals. As a result, it is unclear whether trust is a factor in participants' compliance. It remains unresolved whether participants who are compliant would also be compliant if they did not trust their doctors.

The concept of compliance proved to be a means of investigating the notions of risk and reflexivity. The findings shed light on the concept of risk because many participants discussed the perceived risk associated with their CHD as a factor in their compliance. Reflexivity was also noted in the discussion because many participants were reflexively making the choice to comply, while others were just abiding by the professional orders. Both themes were evident in the data although the roles of risk and reflexivity were not originally considered as factors dictating patient compliance.

Lower risk, lower SES participants

Lower risk, lower SES participant responses indicated that perceived risk was a factor in their compliance with dietary recommendations. The level of risk that each individual felt had a bearing on whether he or she made the recommended dietary changes initially. It also played a role in the extent to which they maintained those changes.

Participants revealed difficulties in maintaining the recommended changes over time. Fennel said that 'sometimes it's hard. Sometimes I cheat and… Sometimes I stick to it, sometimes I don't.' She said that although she knows the risks, 'I'll take my cream with a wee bit of chocolate and things like that. I mean I wouldn't say I don't do it, I eat excessively. They're all foods – I'll cheat now and again, you know. Like everybody else. Like if your granddaughter makes sticky date pudding, you don't say "I don't want that".' Both Lucy and Ryan talked about times when they do not stick to the recommendations: 'I'm not supposed to but I will have a tiny bit.' Lucy discussed the social aspect of eating and how one night a week there is a gathering at the local bowling club where there is food that is not part of their recommended diet:

> *I feel sometimes, I feel sometimes a bit reluctant about it but it's a very good social night. We get a sweet [dessert] as well so. That's, that's one night in seven so we have six nights where we eat carefully but we don't on that night and I think we should really – for a while we stopped going on the nights that I knew that they were deep frying and cooking chips, and then I thought "ah hell" (Lucy).*

Ryan suggested that quality of life is the excuse used to justify situations in which dietary recommendations are set aside. Although there are risks involved in non-compliance, sometimes their enjoyment appeared to outweigh those risks:

> *It's so sad to go through your life and not have this and not have that and not have that and not have that so you extend your life by three or four years and then before you get to that extension, get hit by a truck or something. Alright. I mean you've gotta live life (Ryan).*

Ryan and Lucy's responses indicate that their compliance is a reflexive act; they choose to comply at times because of the risks associated with non-compliance but also choose to 'live life'.

Participants did indicate that, from time to time, they are reflexively non-compliant. However, they also state concerns about the risks involved in not changing their eating habits. The findings indicate that risks do affect participant level of compliance. Leslie suggested the risks 'could be quite serious. It could kill you couldn't it really? I don't want that to happen – I'm not ready to go yet!' Fennel said she was more careful with keeping up changes since she had stents put in because 'I was a bit, yeah I was a bit scared. If I don't watch what I'm eating and the, the – I

mean it could be in my make-up that the arteries will clog and it will get worse.' Similarly Sam said that 'sometimes I go off course but – you know, one day I might just eat something I'm not supposed to but then I'll just go back on course so…' When asked why he goes back on course he said that most of his family died young so the risks involved with high cholesterol levels make him go back on course: 'cause I know if I go off course too far I could go down that way.' Ryan is also concerned about the risks involved in non-compliance and said although he cheats at times, he feels that 'if you don't keep that cholesterol down then okay, we'll have a heart attack or something related in that way. You know, I'm not out of the woods yet.' Similarly, although the Lipitor is working to lower their cholesterol, Lucy said: 'That doesn't mean we can start eating the wrong things.'

For the most part, both Lucy and Ryan follow the dietary recommendations. Ryan is aware of the risks involved in heart problems because he and his wife live in a retirement village where 'we probably have four to five deaths a year among the residents. It's not God's waiting room but it's pretty close' (Ryan). Ryan also suffers from diabetes, he has a pacemaker and macular degeneration which, for him, means that dietary restrictions are very important. Ryan indicates that trust may play a role in compliance; he has been told that the dietary restrictions are very important by a healthcare professional and it appears that he trusts or believes this information. However, it does not necessarily indicate that trust is a predictor of compliance.

Jill, Jim, Will, and Carrie's responses are different from the responses of other lower risk, lower SES participants. Jim, Carrie, and Will were all put on medication to lower their cholesterol but were not provided with dietary recommendations: 'I've never been told to diet or eat anything special or anything like that' (Will). All three of the participants rely on medication to keep their cholesterol levels low and Carrie said:

> *I, having dieted all my life, you know, no one really needs to tell me what to eat to lower cholesterol so I must say, since I've fallen off the diet, I've also fallen off really watching what I eat too much… if I decided to go back on the diet then I'd be eating healthier than I am (Carrie).*

When asked why she has fallen off the diet she said: 'Well I think at 77 years of age, you know, why should I, I suppose I feel, why should I deprive myself?' Carrie's response suggests that her age plays a role in not dieting. However, her dietary

restrictions appear to be more to do with weight loss than reducing the risks of CHD. Carrie, Will, and Jim do not have a choice of 'compliance' because they have not been given dietary information from a healthcare professional. In a sense, agency or reflexivity regarding dietary information has been removed from these three participants because they remain uninformed in terms of medical dietary advice.

Jill differs from the rest of the group because fifteen years ago she was diagnosed with a high serum cholesterol level. Although her doctor is concerned about her cholesterol and has recommended she begin taking medication, Jill prefers 'not to take anything because a couple I've been on in the past didn't agree with me so I just keep on the way I'm going – rely on diet mostly.' Despite stating that she relies on diet to lower the cholesterol, she also notes: 'I really know what I should eat and what I shouldn't but sometimes it's a bit hard you know.' She also said 'somewhere I must be doing something wrong' because her cholesterol levels have not changed. She also said that the foods they want her to eat have no taste and are expensive: 'It just didn't suit my palate some of it. Also some of, as I say, some of those items can be quite expensive. I mean on a single pension – you know there were a few hard years – you just can't afford it always.' Jill differed from the other lower risk, lower SES participants in saying that she is aware of the risks involved in not taking the medication and not following the changes and they do not concern her. She is reflexively choosing to be non-compliant. Jill's responses indicate that trust does not play a role in compliance. Although she suggested that she trusts her GP, she still remains non-compliant with regard to taking cholesterol medication and to changing her diet.

Lower risk, higher SES participants

The findings for lower risk, higher SES participants were similar to those of the lower risk, lower SES participants. For the participants making changes to their diet, the risks inherent with non-compliance appeared to dictate compliance. Participants talked about the difficulty of maintaining the recommended changes. Although they have made changes, many spoke of how from time to time they 'cheat' or go off course. Ann was given dietary recommendations after being put on medication by her GP 12 years previously. She made the changes at the time and said that she has maintained them but 'sometimes I have a lapse like all of us.'

Participants said that they cheat from time to time with their recommendations. However, they also talked about why they try and maintain the changes even though

they slip sometimes. Ann said that she keeps them up ‘because of family history, I know that I have to, have to do it.’ The risks ‘definitely’ encourage her to watch her diet and making the changes has ‘perhaps’ helped her to avoid bypass surgery. She also said: ‘I know I have to, have to do it [maintain the dietary recommended changes]’ because she does not ‘want to develop any of the problems that they [her family members] had.’ She said that the risks involved in not following the dietary changes have ‘definitely’ impacted on her decision to maintain the changes. However, although risk plays a role, she is reflexively making the decision to comply. This is evident in her discussions about occasional lapses.

The cholesterol levels of Danielle and Steve have decreased because of their medication but ‘you still have to watch your diet’ (Danielle). Danielle and Steve have made a lot of changes over the last ten years and said that they stick the changes ‘most of the time.’ When the risks increased for Steve three years ago when he was diagnosed with diabetes, both Steve and Danielle became vigilant with their diet. Danielle wants to eat well because ‘I would probably die sooner if I wasn’t doing this.’ Steve said: ‘I think if we didn’t do this, I’d be struggling I reckon – health wise.’ Similarly, Scott keeps up with the changes because he also feels that if he did not make the changes that

> *…there’s a possibility later on that I could have some form of cardiovascular disease – I mean you know that’s – we just can’t predict the future but by looking after my weight – by eating proper meals and healthy, I can actually help lower that risk would be the best way to put it (Scott).*

In keeping with the results from the lower risk, lower SES group, some of the lower risk, higher SES participants discussed how quality of life kept them from going to extremes when making changes. Bella said her diet was already healthy although she cut out some foods. However, after discussing changes she could still make, her GP said: ‘well you could eat a perfect diet and maybe come down 0.5 and be totally miserable’ so Bella says she maintains a healthy diet but is not overly stringent with following the recommendations. This suggests that Bella may not be reflexive in her decision to change her diet. Her GP has told her it is alright to still include some ‘bad’ foods and she is following his recommendations.

Ken differed from the rest of the group in that although he is ‘conscious of my diet’ he discussed his age as a factor in his compliance: ‘I fall by the wayside

occasionally, you know. I'm 76 years of age – what do you expect from an old man?' [laughs] – I can't go on forever! Now if I was seven years of age it might be different.' Similar to Carrie, his age plays a role in his compliance. He states that making the changes has proven beneficial in lowering the cholesterol level but also said: 'I suffer from hypertension, blood pressure – I been, you name it I've got it. Blood pressure, the diabetes – high cholesterol, asthma – you name it, you know, I've got it. What do you expect at my age?' It is evident that Ken is reflexively making the choice of non-compliance.

Higher risk, higher SES participants

For the higher risk, higher SES participants who made changes to their diet, risk appeared to play a central role in maintaining the changes. The participants who perceived their risks to be high said they had been strict with their diet. Participants who perceived their risks to be low were not as compliant. Similar to the lower risk groups, the participants also discussed times when they cheated with their diet, which indicated a level of reflexivity.

For the participants who made changes and maintained them, responses suggest that the risks involved in non-compliance are what keeps them maintaining the changes. John started changing his diet 20 years ago for health reasons. John says that making the changes to his diet

> *I could say lifesaving but that's a bit dramatic but it's pretty significant. My cardiologist said he'd never expect to see me back in hospital for that reason again, providing I can keep the stress levels down. And that's, and that's again, you know, keep up good eating habits (John).*

He said he maintains the changes because 'I don't relish the thought of that elephant coming back and doing a dance on my chest. So the risk of another myocardial infarct is not something I wish to entertain.'

Similarly, Jeff has cut down on a lot of the foods he ate prior to his heart attack. He said that making the dietary changes has not been hard because 'you just know you can't have it so you don't have it.' He says the benefits are 'Living. Life' and said the risks are 'death. Or a stroke.' Jeff still has two blockages in his heart so the risk of another heart attack is high. His response also indicates that he may not be reflexively making the decision to comply. He also said that he read the information

given to him at cardiac rehabilitation repeatedly even though he does not enjoy reading. He has followed the recommendations given to him tenaciously. Similarly, George has been very strict because he had what he called a horrible experience with his heart attack and it took him a long time to recover. He said the biggest help in sticking with the changes is 'the fact that, you nearly died. I can't just expect to abuse my body and then achieve those things. Saying as I am now 65 and I'm wanting to work for 5 years I don't want to back up.' However, George also noted that following the recommendations has been difficult. He said: 'I stopped putting my glasses on because I thought well if I can't buy anything, I'll just try to be sensible.' George said that grocery shopping has become difficult because of all the dietary restrictions. He no longer feels that he can buy anything that is within his dietary restrictions. His response indicates that following the recommendations is too complex so he follows his intuition. This may indicate a lack of reflexivity in that George does not want the information necessary to make active choices. For George, trust in his intuition or self-trust, may be a way of reducing the complexity of his decisions.

Responses also indicate that as time passes after the participants' cardiac events, the risks are perceived to be lower and participants become less compliant. John has become more relaxed with following the recommendations over time since his heart surgery. He was very strict with his eating directly after the surgery, but said that over time he has become more relaxed:

> *I've just got to be careful that it doesn't drift so far into the distance that ah, I start behaving badly. Now I know … I can slip back a bit and I, I'm sure that I'm not as nervy about eating some things or doing some activities as I was say four or five months ago – cause this thing happened six months ago. And, but ah, I've just got to be careful that it doesn't drift so far into the distance that ah, I start behaving badly (John).*

Although George's heart attack scared him and he has significantly changed the way he eats, he also said: 'I feel almost guilty about anything I touch lately cause that has too much fat in it [pointing to his coffee] but you've gotta, I think you've gotta come back a bit and just, generally try to have a sensible diet.' He says he has to have a treat once in a while because 'We don't know what's around the corner.' He does not want to miss out on good things in life because he could die tomorrow. This indicates a level of reflexivity in that George weighs the risks associated with non-compliance against the benefits of non-compliance.

Horace was the only participant in the higher risk, higher SES group who made some changes following his bypass but did not stick with them at all because he relies on the medication to keep his cholesterol down: 'All the food that they recommended was, was the usual stuff. You know, the tasteless, useless food.' Horace is aware of the risks because the cardiologist said he will only get 10 or 15 years out of the heart he has currently. He said the doctor's warning 'certainly made us, made me look at ah, at the not trying to eat too much fat and not eat junk meals.' However, once the medication brought the cholesterol down, he started eating what he used to and started smoking again. He is reflexively making the choice not to comply. He said that if his cholesterol goes up again he might consider making the changes again but that currently the doctor is not concerned. Similar to Jill, Horace's responses suggest that trust does not play a role in compliance. Horace said he trusts his doctors, all doctors at the clinic he goes to and the specialists. However, despite this trust, he remains reflexively non-compliant.

Mary's story differed from the rest of the group because her heart attack was the result of a floating clot, not because of arterial build-up which means there is less risk involved in her CHD. As a result, her response to the dietary changes has been different to other participants. The doctor has told Mary that:

> *My angiogram was clear. I've got no residual plaque he mentioned, in my arteries whatsoever. They are, they are clear. I did say to him "what do you mean by clear. Clear for my age?" and he goes "clear for any age". "What percentage is blocked" [Mary], "they're not blocked" [cardiologist]. I've got no damage to my heart whatsoever… So he said that he can't guarantee that I won't have another one but if I was to have another one, because of the condition of my arteries and my heart, I would be more likely to recover from it as I have now. But, he said, he called me a "mystery woman" (Mary).*

Mary has worked on the dietary changes because she is overweight, not because of her cholesterol level: 'I had really let myself go – my weight had ballooned and I wasn't watching what I ate.' Although she was already working on this before the heart attack she said she had been slipping and she knows 'that I've got to make further changes. So I'd sort of slipped a little bit so this was like: "nah – this is serious. This is like…" – yeah.' The heart attack 'brought me right back on track.' At the time of the interview Mary was off work but she was 'quite worried' about her blood pressure going up and her eating habits changing when she returns to work: 'I'm going to have to be disciplined. So yeah. So I am worried, I am worried on a

number of factors.' She knows she is doing well now but is aware that 'But all of that can fall over, you know, sort of next week. I don't want it to but it could and it's becoming Christmas celebrations and all that sort of thing so…' Mary also talked about how the fact that the risks are lower for her than other people who have heart attacks. She is more concerned about her weight than her CHD. She is making a reflexive choice to comply. Although her motives may differ from those of the cardiologist, reducing her weight would help to eliminate the risks of heart disease.

Higher risk, lower SES participants

Similar to the other three groups, risk played a role in compliance for the higher risk, lower SES group. Cindy says she has made changes following her heart attack because she does not want to 'become some ashes.' She feels that making the changes is important because:

> *I want to sit and look around and say 'I love this'. You now, this is worth living for. Do I want to talk to my grandchildren and find out what they've been doing? You know – I just think we're just so lucky to have what we've got. I suppose it's attitude – it's a matter of being positive or negative (Cindy).*

Cindy has made a reflexive choice to comply because she talked about the temptations of Kentucky Fried Chicken. She has decided that the benefits of maintaining the changes outweigh the benefits of eating the foods she used to enjoy. Similarly, Trish has made changes because of the risks involved in non-compliance: 'I'm hoping that you know, I won't ever need to have any more heart surgery or anything like that. I could end up back where I was.' Bob says the changes are beneficial in that they lower his cholesterol and hopefully leave him with a 'healthier body in which case a lot of the risk of further heart attacks or vascular …' Bob says that his heart attack was a shock to everyone because he is very active but that his heart problems are genetic. He also said that 'To ignore all the information that I have received from the medical people I think would be totally foolish to ignore it. I could end up back where I was. Back in the same situation.' Bob's response indicates a lack of reflexivity in compliance. He suggests that it is his responsibility to take on board the information from the 'medical people'. Similarly, Philip has made significant changes to his diet following his heart attack: 'I used to sit in that chair – and I used to eat ice cream and I used to eat handfuls of nuts and I used to eat chips and I used to eat garbage and garbage.' Harvey said he maintains the changes because 'Everybody wants to live – nobody wants to die. And you think

‘ah, here’s a chance that I might be able to keep going a bit longer’. If you can avoid problems, you avoid them, I feel.’

Some of the participants in the higher risk, lower SES group also discussed times when they ‘cheat’. Philip said that over time he has become a bit more relaxed with regard to how strict he is with following the dietary recommendations: ‘You know like, it’s funny cause when I first come out of hospital I would stick to the diet… but I mean I do go overboard sometimes but I mean, I’m sure that wouldn’t harm me too much would it?’ Similarly, although Harvey has been quite strict with himself, he said that he does ‘splash out’ sometimes. As was seen in the higher risk, lower SES participants, responses indicate that as time passes on from the initial cardiac events, the perceived risk involved with CHD decreases and as a result, so does their level of compliance. This also indicates that they are making the reflexive decisions about what they eat – they are not simply following the recommendations.

Similar to Ken and Carrie, Claire has made a lot of changes to her diet but she also said that she still allows herself treats because she is older and feels that she should not deprive herself at her age: ‘I think it’s the sensible way of doing it. I mean at my age, if I was a 40 or a 50 year old, it’s a different story. I’m 73 now so, you know, give me another 20 years, that’s pretty good. I think!’

Summary of the role of risk and reflexivity in compliance

The notions of time, risk and reflexivity were identified in discussing patient compliance. There are no distinct differences between participant groups with regard to level of CHD risk (as identified for the purpose of this thesis). Risk however, appears to play a role in compliance. Participants’ compliance appears to be influenced by their perceived level of CHD risk. While they may have been identified as higher or lower risk for this thesis, the risks they perceive to be involved in their CHD influence how compliant they are. Participants who perceive their risks to be high are more compliant than participants who perceive their risks to be low.

The notion of time became apparent in compliance when higher risk participants discussed how, over time, they became less compliant. The notion of time is also linked to risk. As time passed, participants’ fears of the risks of their CHD decreased and so did their level of compliance.

The notion of reflexivity differed between participant groups according to their SES. The findings suggest that for higher SES participants, compliance involves reflexivity. While some of the lower risk participants 'just follow' the recommendations of healthcare professionals, some of the higher risk participants choose to take the information on board but they still play an active role in decisions about their diet. The 'just follow' concept may indicate a level of dependence.

5.5 Summary of qualitative findings

Objective 2 outlined in the literature review was to explore the roles of socio-economic status and level of CHD risk in patient trust. As a result, the sampling strategy for the qualitative data collection was designed to investigate the role of risk and SES in trust. Findings suggest that CHD risk and SES do play a role in participant trust, reflexivity and compliance.

Higher SES participants were more reflexive with regard to interpersonal trust and compliance than lower risk participants. While many lower risk participants trusted because they hade no reason not to or because they had always trusted, higher risk participants were more likely to doubt doctors or to change physicians. Higher SES participants were also more likely to play an active role in their dietary decisions while many of the lower SES participants 'just follow' the dietary advice of healthcare professionals.

Both higher and lower SES participants were reflexive with regard to institutional trust with the exception of three higher SES participants who trusted because they had no reason not to, which may indicate a lower level of reflexivity.

The level of CHD risk affected both patient compliance and dependence. Higher risk participants discussed times when they were dependent on the system; that they had no choice but to trust because they were dependent on healthcare professionals for advice. Lower risk participants did identify a level of dependence on the medical system and healthcare professions for access to treatment and medications. However, the lower risk participants differed in the fact that they had been able to choose the doctors they saw. The levels of risk inherent in medical decisions appeared to be a factor in whether patients trusted or were dependent.

Although participants were identified as higher or lower risk for the purpose of this thesis, there were no clear distinctions between these groups regarding compliance. Objective 6 was to address to what extent trust influences patient compliance. The findings do not identify a direct link between trust and compliance. While the patients trusted their healthcare professionals, not all of them were compliant. However, participants' perceived risk associated with their CHD did influence the level of compliance. The notion of time was also apparent in participants' compliance. As time passed, their perceived level of risk appeared to decline and consequently, so did their compliance.

Objectives 3 and 4 outlined in the literature review were to explore the role of social factors (including patient experience) affecting patient trust and reflexivity. The findings suggest that age plays a role in patient reflexivity. Many of the older participants were more likely than younger participants to trust healthcare professionals blindly. They were also less likely to doubt healthcare professionals. The findings also suggest that negative healthcare related experiences did not appear to affect patient trust. However, as noted above, this may be the result of patient dependence.

Objective 5 was to investigate how lay individuals conceptualise trust. Findings suggest that participants did not distinguish between interpersonal and institutional trust. Many participants discussed their trust in the healthcare system or in specific clinics when asked about their interpersonal trust in doctors. Unanticipated results also came out of the data. When discussing the concept of trust, the notions of power and dependence arose. These findings helped to identify how individuals conceptualise trust.

The findings also suggest that participants who trusted the medical system did not necessarily trust the government (contrary to Luhmann's argument). However, the results highlight that participants' trust in the medical system influenced their trust in healthcare professionals. In addition, the findings suggest that participant's trust in one individual (their GP) did influence their trust in another individual (their specialist). These findings were beneficial in developing a model of Giddens' and Luhmann's theories of trust (objective 9).

Chapter Six will provide an overview of the quantitative results.

Chapter 6: QUANTITATIVE RESULTS

6.0 Overview

The quantitative data provided a method of achieving objectives 2–4 and 7-8, which can be summarised as: explore the role of social factors affecting trust and reflexivity, examine the extent to which Australians trust individuals and institutions, and investigate the operationalisation of trust. The results presented below provide a means for meeting these objectives.

The following results section includes data that were found to be statistically significant ($p < 0.05$). The data have been organised into two sections. The first section outlines the univariate analysis with frequencies of participant demographics (the seven independent variables used in bivariate analysis). The second section presents the statistically significant data for univariate, bivariate, and multivariable analyses. Please see the attached CD which provides the SPSS output data for univariate, bivariate, and multivariate analyses.

6.1 Univariate analysis

6.11 Participant demographics

Age

The mean age of the respondents was 55 years with ages ranging from 18 to 95 years. The response rate for this question was 83.1% (Table 11).

Respondents were grouped into the age categories used by the Australian Bureau of Statistics (18–24, 25– 34, 35–44, 45–54, 55+). Additional categories (55–64, 65–74, 75–84, 85+) were added to the ABS categories because 442 of the respondents were over the age of 55 (50.9% of respondents). Many of the age categories were collapsed as part of data manipulation for bivariate analysis.

As a means of having a relatively even distribution between the categories, the eight age categories were collapsed into four for multivariate analysis, becoming 18–34, 35–54, 55–74, 75–85+.

Table 11: Age frequencies

		N	Valid %
Age	18–34	90	10.4
	35–54	334	38.7
	55–74	351	40.7
	75–85+	87	10.1
	Total	862	100.0

Sex

The respondents consisted of 425 (40.7%) males and 614 (58.8%) females (Table 12).

Table 12: Sex frequencies

		N	Valid %
Sex	Male	425	40.9
	Female	614	59.1
	Total	1039	100.0

Income

Initially there were 11 categories for income ($0–14,999, $15,000–29,999, $30,000–44,999, $45,000–59,999, $60,000–74,999, $75,000–89,999, $90,000–104,999, $105,000–119,999, $120,000–134,999, $135,000–149,999, $150,000+). For the multivariate analysis, these income categories were collapsed into three categories for the purpose creating a relatively even distribution between categories ($0–44,999, $50,000–104,999, $105,000–150,000+).

There were 38.6% of respondents in the income bracket $0–49,999, 34.1% in the income bracket $50,000–104,999, and 27.4% had an annual household income of $105,000–150,000+. The response rate for this question was 93.3% (Table 13).

Table 13: Income frequencies

		N	Valid %
Income	$0–49,999	376	38.6
	$50,000–104,999	332	34.1
	$105,000–150,000+	267	27.4
	Total	975	100.0

Index of relative socio-economic disadvantage quintile

The Socio-Economic Index for Areas (SEIFA) is a tool developed by the ABS for assessing of the welfare of Australian communities. The index used in this thesis is called the Index of Relative Socio-Economic Disadvantage (IRSD) which the ABS uses to measure socio-economic status by postcode. IRSD scores

are grouped into quintiles 1–5 (lowest, low, middle, high and highest) for analysis where the highest quintile represents postcodes with the highest IRSD scores (most advantaged areas) and the lowest quintile represents postcodes with the lowest IRSD scores (most disadvantaged areas).

Survey return envelopes were pre-coded as a means of identifying respondents' postcodes for IRSD classification. However, not all postcodes have been identified as belonging to one of the five IRSD quintiles because the index was created in 2006. As a result, there were five respondents who were living in areas that did not have an IRSD score. The spread between the quintiles was consistent with 16.8% in the lowest quintile, 20.1% in the second quintile, 19.0% in the third quintile, 20.8% in the fourth quintile and 23.3% in the highest quintile (Table 14).

Table 14: IRSD frequencies

		N	Valid %
IRSD quintile	Lowest	175	16.8
	2	209	20.1
	3	197	19.0
	4	216	20.8
	Highest	242	23.3
	Total	1039	100.0

Overall health

The survey asked respondents to rank their overall health from very good to very bad. Findings indicate the survey population had high levels of overall health with only 0.5% indicating very bad health and 2.5% indicating they were in bad health (Table 15). The categories fair/bad/very bad health were collapsed for the multivariate analysis because of poor confidence intervals.

Table 15: Overall health frequencies

		N	Valid %
Overall health	Very good	272	26.4
	Good	450	43.7
	Fair	276	26.8
	Bad	26	2.5
	Very bad	5	0.5
	Total	1029	100.0

Presence of a chronic illness/disability

Respondents were asked if they have a chronic illness or disability. The response rate for this question was 98.5%, with 1028 respondents responding. Of these, 367 (35.7%) respondents responded yes and 661 (64.3%) indicated no (Table 16).

Table 16: Frequencies for presence of a chronic health condition

		N	Valid %
Presence of a chronic health condition	Yes	367	35.7
	No	661	64.3
	Total	1028	100.0

Length of time with GP

Respondents were asked how long they had been seeing their current GP (response rate 96.5%). Responses for respondents who had a current GP showed 12.7% (128) had been seeing their GP for less than a year, 31.9% (322) had been seeing their GP for 1–5 years, 17.7% had been seeing the GP for 6–10 years and 37.7% (380) had been seeing their GP for over ten years (Table 17).

Table 17: Length of time seeing current GP

		N	Valid %
Length of time with current GP	< 1 yr	128	12.7
	1–5 yrs	322	31.9
	6–10 yrs	178	17.7
	> 10 yrs	380	37.7
	Total	1008	100.0

6.2 Bivariate and multivariate analyses

Each question asked in the survey was specifically developed to investigate one of five lines of theoretical inquiry as a means of addressing the objectives outlined above: generalised trust, trust in medical information, reflexivity, interpersonal and institutional trust, and the operationalisation of trust (associations between trust in doctors and interpersonal/institutional trust). The following has been organised so that the survey questions investigating each of the four areas are grouped together (Table 18).

Table 18: Reference categories

Question	Numerical value	Reference category
Respondent trust in individuals	1.00	Trusts individuals
Respondent trust in organisations/institutions	1.00	Trusts organisations/institutions
Request for a second opinion from a doctor	1.00	Yes, they have requested a second opinion
Most people would take advantage if given the chance	1.00	No, they do not think most people would take advantage if given the opportunity
Most people can be trusted	1.00	Yes, most people can be trusted
Doubt in individuals	1.00	Yes, they have doubted individuals
Doubt in organisations/institutions	1.00	Yes, they have doubted organisations/institutions
Questions regarding reflexivity	1.00	Reflexive
Questions regarding trustworthy characteristics of a doctor	1.00	Influences trust

6.21 Generalised trust

1. *Generally speaking, would you say that most people can be trusted?*

Findings from univariate analysis suggest that most respondents have a high level of generalised trust with 79.5% (745) of respondents responding 'yes, generally speaking, most people can be trusted'.

A statistically significant association was found between generalised trust and the independent variables age (p = 0.001; Cramer's V = 0.162), presence of a chronic health problem (p = 0.009; phi = 0.085), and health status (p = 0.018; Cramer's V = 0.104).

It was found that older people are significantly more likely than younger people to agree that, generally speaking, most people can be trusted. A total of 64.6% of respondents aged 18–34 years said that most people can be trusted and percentages of the 'yes' response increased as the age categories increased, with 78.1% of respondents aged 35–44, 74.5% of respondents aged 45–54, 85% of respondents aged 55–64, and 83.9% of respondents aged 65–74 indicating that most people can be trusted. The cohort with the highest level of generalised trust (85.9%) was respondents over age 75.

Respondents with a chronic health problem were less likely than those without to think that, generally speaking, most people can be trusted, with 75.1% of those with a chronic health problem saying that people could be trusted while 82.3% of those without a chronic health problem saying that people could be trusted.

Respondents with very good and good health were more likely to respond that most people can be trusted (83.9%; 81.2%) than people with fair or bad/very bad health (73.1%; 76.9%).

The variables used in the multivariate analysis were overall health, chronic health, IRSD quintile, age, and length of time with GP. After controlling for these variables it was found that overall health and age have statistically significant associations with generalised trust.

As age increases, so does the likelihood that respondents have generalised trust. Respondents with very bad/bad/fair health are significantly less likely to trust most people than respondents with very good health (OR 0.45; CI 2.8–0.73). Respondents aged 75–85+ (OR 0.43; CI 1.90–9.52) and respondents with very good health are the most likely to trust most people (Table 19).

Table 19: Multivariate odds ratios of factors associated with generalised trust in most people

		p	OR (CI)
Age	18–34		1.00
	35–54	**.020**	1.9 (1.10–3.25)
	55–74	**.000**	3.5 (2–6.21)
	75–85+	**.000**	4.3 (1.90–9.52)
Overall health	Very good		1.00
	Good	.220	0.75 (0.47–1.19)
	Very bad/bad/fair	**.001**	0.45 (2.8–0.73)

Model stable (Hosmer and Lemeshow 2000). Chi square 2.40, p = 0.94

2. *Do you think that most people would take advantage of you if they had the chance?*

Respondents were asked whether they thought that most people would take advantage of them if given the chance. Findings indicate high levels of trust, with 72.7% of respondents feeling that if given the chance most people would not take advantage of them.

Statistically significant associations were found between generalised trust with regard to thinking people would take advantage if given the chance and the independent variables health status (p = 0.000; Cramer's V = 0.169), the presence of a chronic health condition (p = 0.005; Cramer's V = 0.100), and age (p = 0.004; Cramer's V = 0.160).

There was a positive relationship between generalised trust and age, with 62.3% of respondents aged 18–34, 70.0% of respondents aged 35–44, 66.5% of respondents aged 45–54, 78.6% of respondents aged 55–64, 79.7% of respondents aged 65–74, and 84.5% of respondents aged over 75 saying that if given the chance most people would not take advantage of them.

People from areas identified as being IRSD quintile 1 (most disadvantaged areas) are the most likely to think people will take advantage of them (35.0% responded that people would take advantage of them). The percentage of respondents who believe that people would take advantage of them decreases as IRSD quintile increases from 1 to 5.

People who are in good health are much less likely to think people will take advantage of them than people with poorer health. The percentage of those who thought people would take advantage of them steadily increases as health status decreases. Overall, 21.4% of those with very good health said that people would take advantage of them while 23.6% of people with bad health, 35.6% of people with fair health and 53.8% of those with bad/very bad health responded that people would take advantage of them.

People who have a chronic health problem are more likely to think people would take advantage of them (33.2% answering 'yes') than those without a chronic health problem (24.0%).

The variables used in the multivariate analysis were overall health, chronic health, IRSD quintile, and age. After controlling for these variables it was found that overall health and age have statistically significant associations with respondents' thinking people would not take advantage of them.

Respondents aged 55–74 (OR 2.62; CI 1.45–4.73) and 75–85+ (OR 4.32; CI 1.76–10.61) are significantly more likely to say that people would not take advantage of

them if given the chance. Respondents living in areas identified as IRSD quintile 4 are significantly more likely to say that people will not take advantage of them (OR 1.80; CI 1.01–3.22) than people living in areas identified as IRSD quintile 1. People with fair/bad/very bad health are significantly less likely to say that people will not take advantage of them (OR 0.39; CI 0.24–0.64) than people with very good health. Respondents aged 75–85+, respondents living in an area identified as IRSD quintile 4, and respondents with very good health are the most likely to say that people would not take advantage of them if given the chance (Table 20).

Table 20: Multivariate odds ratios of factors associated with individuals who think most people would take advantage of them if given the chance

		p	OC (CI)
Age	18–34		1.00
	35–54	.32	1.34 (0.76–2.36)
	55–74	**.001**	2.62 (1.45–4.73)
	75–85+	**.001**	4.32 (1.76–10.61)
IRSD quintile	Lowest		1.00
	2	1.00	1.00 (0.58–1.72)
	3	.06	1.75 (0.97–3.15)
	4	**.05**	1.80 (1.01–3.22)
	Highest	.06	1.70 (0.98–2.96)
Overall health	Very good		1.00
	Good	.37	0.81 (0.51–1.28)
	Very bad/bad/fair	**.00**	0.39 (0.24–0.64)

Model stable (Hosmer and Lemeshow 2000). Chi square 10.34, p = 0.09

6.22 Trust in medical professionals

3. *How much do you trust various groups of people?*
    a. *Regular doctor*

Respondents were asked to indicate their level of trust in their regular doctor on a scale from 1–4 (1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all). Respondents have high levels of trust in their regular doctor with only 1.9% of the valid sample indicating they trust their regular doctors not very much or not at all.

A statistically significant association was found between gender (p = 0.011; Cramer's V = 0.095) and level of trust in the respondents' regular doctor. Females have lower trust in their regular doctor, with 57.8% indicating they trust their regular doctor completely, 40.2% indicating they trust him/her somewhat, and 2.0% indicating they trust him/her not very much or not at all. The findings for males were

higher with 67.1% indicating they trust their regular doctor completely, 31.0% indicating they trust him/her somewhat and 2.0% indicating they trust their regular doctor not very much or not at all.

Multivariate analysis could not be carried out because only sex was found to have a $p \leq 0.25$ ($p = 0.011$). When analysing the associations between trust in family doctor and the independent variables IRSD, age, and length of time with GP, no suitable collapse could be found to help the data to meet the chi square assumption. According to Hosmer and Lemeshow (2000), the p values found when analysing the associations between trust in family doctor and the independent variables presence of a chronic health condition, overall health, income, and sex, were too high to be included in the multivariate models.

4. *How much do you trust various groups of people?*
    a. *Doctors in general*

Respondents were asked to indicate their level of trust in doctors in general on a scale from 1–4 (1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all). The univariate results indicate that the majority of respondents (70%) trust all doctors somewhat but not completely, with only 22.4% saying they trust them completely. Only 7.6% of the respondents indicated that they have little or no trust in doctors in general.

A statistically significant association was found between trust in doctors in general and the independent variables sex ($p = 0.000$; Cramer's $V = 0.149$), income ($p = 0.001$; Cramer's $V = 0.099$), and age ($p = 0.000$; Cramer's $V = 0.163$).

Females have lower trust in doctors in general with 17.2% indicating they trust doctors in general completely, 74.8% indicating they trust them somewhat, and 7.9% indicating they trust them not very much or not at all. The findings for trust in doctors in general were higher for males, with 29.8% indicating they trust them completely, 63.1% indicating them trust them somewhat, and 7.1% indicating they trust them not very much or not at all.

People with an annual household income of $0–49,999 are more likely to trust doctors in general completely (27.5%) than those with an annual household income of $50,000–104,999 (21.5%) and $105,000–150,000+ (17.2%).

Older people are significantly more likely to trust doctors in general. As age increases, so does the percentage of respondents who responded 'trust them completely'. However, although there is a positive relationship between trust and age, the cohort of respondents aged 45–54 appear to have slightly lower levels of trust than those aged 35–44 (Table 21).

Table 21: Association between level of trust in doctors in general and age

		Level of trust in doctors		
		Trust them completely	**Trust them somewhat**	**Do not trust them very much/do not trust them at all**
Age	18–34	11.5%	78.2%	10.3%
	35–44	17.4%	71.1%	11.6%
	45–54	15.1%	74.1%	10.7%
	55–64	24.7%	68.7%	6.6%
	65–74	34.0%	62.7%	3.3%
	75+	38.1%	58.3%	3.6%

The variables used in the multivariate analysis were IRSD quintile, income, age, sex, and length of time with GP. After controlling for these variables it was found that length of time with current GP and income have statistically significant associations with trust in doctors in general.

Respondents with an annual household income of $105,000–150,000+ are less likely (OR 0.45; CI 0.24–0.84) than those with an income of $0–49,999 to trust doctors in general. Respondents who have been seeing their GP for 1–5 years are significantly more likely to trust doctors in general (OR 2.78; CI 1.31–5.90) than people who have been seeing their doctor for more than ten years (OR 2.06; CI 1.02–4.13). People with an annual household income of $0–49,999 and people who have been seeing their GP for 1–5 years are most likely to trust doctors in general (Table 22).

Table 22: Multivariate odds ratios of factors associated with trust in doctors in general

		p	OR (CI)
Income	$0–49,999		1.00
	$50,000–104,999	.59	0.83 (0.43–1.62)
	$105,000–150,000+	**.01**	0.45 (0.24–0.84)
Length of time with current GP	< 1 years		1.00
	1–5 years	**.01**	2.78 (1.31–5.90)
	6–10 years	.09	2.03 (0.89–4.63)
	> 10 years	**.04**	2.06 (1.02–4.13)

Model stable (Hosmer and Lemeshow 2000). Chi square 3.13, p = 0 .93

5. *How much do you trust various groups of people?*

    a. *A doctor you are seeing for the first time*

Respondents were asked to indicate their level of trust in a doctor they are seeing for the first time on a scale of 1–4 (1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all). Univariate results suggest that the majority of respondents (76.7%) trust a doctor they are seeing for the first time somewhat but not completely, with 12.9% of respondents saying they trust a doctor they are seeing for the first time completely while 10.4% indicated they had little or no trust in a doctor they are seeing for the first time.

A statistically significant association was found between trust in a doctor being seen for a first time and the independent variables sex (p = 0.002; Cramer's V = 0.112) and age (p = 0.000; Cramer's V = 0.163).

Females have slightly lower trust in doctors they are seeing for the first time with 9.8% indicating they trust a doctor they are seeing for the first time completely, 79.2% indicating they trust somewhat, and 11.0% indicating they trust not very much or not at all. The levels of trust in a doctor they are seeing for the first time were higher for males, with 17.4% indicating they trust completely, 73.2% indicating they trust somewhat, and 9.3% indicating they trust not very much or not at all.

Older people are significantly more likely to have a higher level of trust in doctors they are seeing for the first time. As age increases, so does the likelihood of respondents saying that they have complete trust in a doctor they are seeing for the first time. However, although there is a positive relationship between trust and age, the cohort of respondents aged 45–54 have slightly lower levels of trust than those 35–44 years of age (Table 23).

Table 23: Association between level of trust in a doctor being seen for the first time and age

Level of trust in a doctor being seen for the first time				
		Trust them completely	**Trust them somewhat**	**Do not trust them very much/do not trust them at all**
Age	18–34	6.9%	72.4%	20.7%
	35–44	10.3%	76.1%	13.7%
	45–54	6.0%	81.6%	12.4%
	55–64	18.0%	75.8%	6.2%
	65+	20.6%	73.7%	5.7%

The variables used in the multivariate analysis were IRSD quintile, sex, age, length of time with current GP, and income. After controlling for these variables it was found that IRSD quintile and age have statistically significant associations with trust in a doctor they are seeing for the first time.

Findings indicate that as age increases, so does the level of trust that respondents have in doctors they are seeing for the first time. Respondents who live in areas identified as IRSD quintile 5 are less likely to trust doctors they are seeing for the first time (OR 0.40; CI 0.18–0.89) than respondents living in areas identified as IRSD quintile 1. Respondents aged 55–85+ (OR 4.78; CI 2.41–9.46) and respondents living in an area identified as IRSD quintile 1 are the most likely to trust a doctor they are seeing for the first time (Table 24).

Table 24: Multivariate odds ratios of factors associated with trust in a doctor who the respondents are seeing for the first time

		p	OR (CI)
IRSD quintile	Lowest		1.00
	2	.24	0.60 (0.26–1.40)
	3	.26	0.61 (0.26–1.44)
	4	.75	1.16 (0.46–2.92)
	Highest	**.03**	0.40 (0.18–0.89)
Age	18–34		1.00
	35–54	**.03**	2.06 (1.10–3.88)
	55–85+	**.00**	4.78 (2.41–9.46)

Model stable (Hosmer and Lemeshow 2000). Chi square 5.99, p = 0.65

6. *How much do you trust various groups of people?*
    a. *Regular doctor*
    b. *Doctors in general*
    c. *A doctor you are seeing for the first time*

Respondents were asked to what extent they trust doctors (their family doctor, doctors in general, a doctor they are seeing for the first time). Their responses were summed to give a total score from 3–12, with 3 being the most trusting, for respondents who answered 'trust them completely' to all three groups of doctors. The mean score was 5.23, indicating a high level of generalised trust in doctors.

A statistically significant association was found between generalised trust in doctors and the independent variables income (p = 0.002), age (p = 0.000), and length of time with current GP (p = 0.000).

People in the lowest income bracket ($0–44,999) are more likely to have generalised trust in doctors (mean 5.04). The level of generalised trust in doctors decreases as income increases, with respondents in the income bracket $105,000–150,000+ having the lowest level of trust (mean 5.41).

Older people are more likely to have generalised trust in doctors. The mean scores decrease as age increases with respondents aged 18–24 year scoring a mean of 5.65 and people 85+ scoring 4.41.

Respondents who have been seeing their GPs for a shorter period of time are less likely to trust doctors. The mean score for trust increases as length of time seeing their GP increases. Respondents who have been seeing their GP for more than ten years have the lowest mean score (5.01) while people who have been seeing their doctor for less than one year have the highest mean score (5.64).

The variables used in the multivariate analysis were age, income, IRSD quintile, and length of time seeing current GP. After controlling for these variables, it was found that age and the length of time seeing current GP have statistically significant associations with generalised trust.

Respondents aged 55–74 are more likely to trust doctors (OR 3.35; CI 1.04–10.81) than respondents aged 18–34. Respondents who have been seeing their current GP for 1–5 years (OR 3.41; CI 1.22–9.51) are significantly more likely to trust doctors than respondents who have been seeing their GP less than one year. People aged 55–74 and people who have been seeing their GP for 1–5 years are the most likely to trust doctors (Table 25).

Table 25: Multivariate odds ratios of factors associated with generalised trust in doctors

		p	OR (CI)
Age	18–34		1.00
	35–54	.52	1.39 (0.51–3.79)
	55–74	**.04**	3.35 (1.04–10.81)
	74–85+	.20	2.98 (0.56–15.97)
Length of time with current GP	< 1 year		1.00
	1–5 years	**.02**	3.41 (1.22–9.51)
	6–10 years	.34	1.66 (0.58–4.77)
	> 10 years	.09	2.38 (0.88–6.44)

Model stable (Hosmer and Lemeshow 2000). Chi square 1.09, p = 0.99

6.23 Reflexivity

7. *Have you ever requested a second opinion after receiving medical advice from a doctor?*

Respondents were asked whether they had ever requested a second opinion from a doctor. Results indicate that 53.5% of respondents had requested a second opinion regarding medical advice, suggesting that a significant number of respondents are reflexive with regard to medical advice.

A statistically significant association was found between requesting a second opinion and the independent variables sex ($p = 0.000$; phi = –0.135), IRSD quintile ($p = 0.023$; Cramer's V = 0.105), and age ($p = 0.011$; Cramer's V = 0.146).

A higher percentage of female respondents have requested a second opinion from doctors, with 59.1% females indicating they had requested a second opinion compared with only 45.4% males.

Respondents living in an area identified as IRSD quintile 1 (most disadvantaged) are the least likely to request a second opinion (47.12% have requested a second opinion) while those in areas identified as quintile 5 are most likely to have requested a second opinion (61.8% have requested a second opinion). As IRSD quintile moves from 1 to 5 (most disadvantaged to most advantaged), so does the likelihood of requesting a second opinion with the exception of quintile 3 where the percentage of those requesting a second opinion is slightly lower (5.6% lower) than quintile 2 (Table 26).

Table 26: Association between requesting a second opinion from a doctor and IRSD quintile

		Request second opinion from a doctor	
		Yes	**No**
Quintile	Lowest	47.1%	52.9%
	2.00	54.8%	45.2%
	3.00	49.2%	50.8%
	4.00	51.4%	48.6%
	Highest	61.8%	38.2%

The level of reflexivity peaks in the age group of 45–54 with 58.9% of this age group indicating that they have requested a second opinion. As age increases or decreases from the 45–54 year age group, the level of reflexivity decreases. The

findings for younger cohorts may be the result of fewer hospital/GP visits. There is a significant decrease in the number of people requesting a second opinion in the age categories 74+ (52.1% requesting a second opinion) with only 36.8% of respondents aged 75–84 and 23.5% of respondents aged 85 and over doing so, indicating low levels of reflexivity regarding their trust in medical advice (Table 27).

Table 27: Association between requesting a second opinion from a doctor and age

		Requested second opinion from a doctor	
		Yes	**No**
Age	18–24	50.0%	50.0%
	25–34	57.4%	42.6%
	35–44	55.6%	44.4%
	45–54	58.9%	41.1%
	55–64	48.4%	51.6%
	65–74	52.1%	47.9%
	75–84	36.8%	63.2%
	85+	23.5%	76.5%

The variables used in the multivariate analysis were IRSD quintile, chronic health, age, sex, and income. After controlling for these variables it was found that IRSD quintile, sex, presence of a chronic health condition, and age have statistically significant associations with requesting a second opinion from a doctor.

Respondents aged over 75 (OR 0.36; CI 0.19–0.69) are less likely to have requested a second opinion from a doctor than respondents aged 18–34. Respondents without a chronic health condition (OR 0.72; CI 0.54–0.97) are significantly less likely to have requested a second opinion from a doctor than respondents with a chronic health condition. Females are more likely than males to request a second opinion (OR 1.50; CI 1.13–2.01). Respondents living in areas identified as IRSD quintile 5 (OR 2.01; CI 1.28–3.16) are significantly more likely to request a second opinion than respondents living in an area identified as IRSD quintile 1. Females, respondents with a chronic health condition, respondents aged 18–34, and respondents living in areas identified as IRSD quintile 5 are the most likely to request a second opinion (Table 28).

Table 28: Multivariate odds ratios of factors associated with requesting a second opinion from a doctor

		p	OR (CI)
Age	18–34		1.00
	35–54	.94	0.98 (0.61–1.59)
	55–74	.36	0.80 (0.49–1.29)
	75–85+	**.002**	0.36 (0.19–0.69)
IRSD quintile	Lowest		1.00
	2	.16	1.39 (0.88–2.20)
	3	.40	1.22 (0.78–1.95)
	4	.35	1.24 (0.79–2.00)
	Highest	**.002**	2.01 (1.28–3.16)
Presence of a chronic health condition	Yes		1.00
	No	**.03**	0.72 (0.54–0.97)
Sex	Male		1.00
	Female	**.01**	1.50 (1.13–2.01)

Model stable (Hosmer and Lemeshow 2000). Chi square 8.34, p = 0.40

8. *Have you ever doubted information from the following individuals?*
    a. *Your family doctor*

Respondents were asked whether they had ever doubted information from their family doctor. Results indicate low levels of reflexivity with only 28.5% of respondents indicating that they had doubted information from their family doctor. The majority of respondents (71.5%) had not doubted information from their family doctor.

A statistically significant association was found between reflexivity (doubting information from family doctor) and the independent variables age (p = 0.000; Cramer's V = 0.225), sex (p = 0.000; phi = –0.129), and length of time with current GP (p = 0.000, Cramer's V = 0.135).

Younger people are significantly more likely than older people to doubt information from their family doctor (to have higher levels of reflexivity with regard to their doubt in medical information). The cohort found to have the highest percentage of respondents doubting information from their family doctor was 18–24 year olds (45.5%) and in each cohort the percentage of respondents doubting decreases as age increases (37.5% of those aged over 85 were found to have doubted information from their family doctor).

Males appear to be less reflexive with regard to doubting information from their family doctor; with 21.5% of males indicating they have doubted information from their family doctor compared with 33.3% of females.

As the length of time a participant has been seeing their GP increases, the likelihood that they have doubted their family doctor decreases. A total of 61.2% of respondents who have been seeing their GP for less than one year said that they have not doubted information from their family doctor compared with 78.3% of respondents who have been seeing their GP for longer than ten years.

The variables used in the multivariate analysis were overall health, income, age, length of time with current GP, and sex. After controlling for these variables it was found that overall health, sex, and age have statistically significant associations with doubting family doctors.

Respondents aged 55–74 (OR 0.33; CI 0.20–0.56) and those aged over 75 (OR 0.17; CI 0.07–0.37) are less likely than respondents aged 18–34 to have doubted information from their family doctor. Females are more likely to have doubted information from their family doctor (OR 1.49; CI 1.07–2.08), as are people with fair/bad/very bad health (OR 1.66; CI 1.09–2.53). Females, respondents aged 18–34, and respondents with fair to very bad health are the most likely to doubt doctors (Table 29).

Table 29: Multivariate odds ratios of factors associated with doubting information from their family doctor

		p	OR (CI)
Age	18–34		1.00
	35–54	.11	0.67 (0.41–1.09)
	55–74	**.000**	0.33 (0.20–0.56)
	75–85+	**.000**	0.17 (0.07–0.37)
Sex	Male		1.00
	Female	**.02**	1.49 (1.07–2.08)
Overall health	Very good		1.00
	Good	.86	0.96 (0.65–1.43)
	Very bad/bad/fair	**.02**	1.66 (1.09–2.53)

Model stable (Hosmer and Lemeshow 2000). Chi square 1.98, p = 0.98

9. *Have you ever doubted information from the following individuals?*
    a. *Doctors in general*

Respondents were asked whether they had ever doubted information from doctors in general. Results for doubting information from doctors in general were spread almost evenly between respondents, with 49.2% indicating yes, they have doubted information from doctors in general and 50.8% saying that they have not doubted information from doctors in general.

A statistically significant association was detected between reflexivity (doubted information from doctors in general) and the independent variables age ($p = 0.000$; Cramer's $V = 0.272$), income ($p = 0.000$; Cramer's $V = 0.129$), sex ($p = 0.001$; phi = –0.105) and the length of time with current GP ($p = 0.007$, phi = 0.113).

Younger people are shown to be significantly more likely than older people to doubt information from doctors in general (have higher levels of reflexivity with regard to their doubting medical information). The cohort found to have the highest percentage of respondents doubting information from doctors was aged 18–24 years (77.3% of respondents have doubted information from doctors in general) and the percentage of doubting respondents in each cohort decreases as age increases (37.5% of those aged 85 years and over were found to have doubted information from doctors in general).

As household income increase, so does the likelihood that respondents have doubted information from doctors in general, with 42.0% of people with incomes $0–49,999 saying they have doubted information from doctors in general. The likelihood of doubt increases as income increases, with the highest percentage (58.0%) of those who have doubted information being in the income bracket $105,000–150,000+.

Males appear to be less reflexive with regard to doubting information from doctors in general, with 42.8% indicating they have doubted information from doctors in general compared with 53.5% of females.

Respondents who have been seeing their GP for over 10 years are significantly more likely to say they have not doubted information from doctors in general than people who have been seeing their GP for less than 10 years. Overall, 59.0% of those who have been seeing their GP for more than10 years said that they have not doubted information from doctors in general while only 48.8% of respondents who

have been seeing their GP for less than10 years said that they have not doubted information from doctors in general.

The variables used in the multivariate analysis were chronic health, age, length of time seeing current GP, sex, and income. After controlling for these variables it was found that age and presence of a chronic health condition have statistically significant associations with doubting information from doctors in general.

As age increases, the likelihood that respondents have doubted information from doctors in general decreases. Respondents without a chronic health condition are less likely to doubt information from doctors in general (OR 0.67; CI 0.49–0.91). Older respondents without chronic health condition are the least likely to doubt information from doctors in general. Respondents aged 18–34 and respondents with a chronic health condition are the most likely to have doubted information from doctors in general (Table 30).

Table 30: Multivariate odds ratios of factors associated with doubting information from doctors in general

		p	OR (CI)
Age	18–34		1.00
	35–54	**.01**	0.52 (0.31–0.88)
	55–74	**.00**	0.20 (0.12–0.33)
	75–85+	**.00**	0.20 (0.10–0.40)
Presence of a chronic health condition	Yes		1.00
	No	**.01**	0.67 (0.49–0.91)

Model stable (Hosmer and Lemeshow 2000). Chi square 0.72, p = 0.98

10. Have you ever doubted information from the following individuals?

a. Your family doctor

b. Doctors in general

Respondents' responses were summed and given a total score of 2–4 for the level of reflexivity when (dis)trusting medical advice (from doctors in general and their family doctor), with 2 being the highest level of reflexivity (respondents answered yes to doubting information from their family doctor, and doctors in general) and 4 being the lowest level of reflexivity (respondents answered no both to doubting information from their family doctor, and doctors in general).

Responses indicate that 48.4% of respondents have never doubted information from a doctor (their family doctor or doctors in general). However, 25.9% have doubted information from both sources and 25.7% have doubted information from one of the two sources.

A statistically significant association was detected between reflexivity (doubting medical information) and the independent variables sex ($p = 0.000$; Cramer's $V = 0.136$), income ($p = 0.019$; Cramer's $V = 0.081$), age ($p = 0.000$; Cramer's $V = 0.210$), and length of time with current GP ($p = 0.000$, Cramer's $V = 0.131$).

As income increases, so does the likelihood of doubting information from doctors, with 21.6% of people in the lowest income bracket obtaining the maximum score (2) in terms of reflexivity and 28.9% of those in the highest income bracket scoring 2 for reflexivity.

Males appear to be less reflexive about doubting information from doctors with only 19.6% obtaining the maximum score (2), compared with 30.1% females. Similarly, 55.9% of males obtained scores of 4 (least reflexivity) compared with only 43.3% of females.

Younger respondents are shown to be significantly more likely than older respondents to have higher levels of reflexivity with regard to their doubting medical information from doctors. The cohort found to have the highest level of reflexivity is respondents aged 18–34, with 41.2% of respondents obtaining the maximum score (2) in terms of their level of reflexivity while only 11.7% of respondents aged over 75 years were found to have the highest level of reflexivity.

Respondents who have been seeing their doctor for longer are less reflexive with regard to doubting information from doctors, with 56.9% of respondents who have been seeing their doctor for more than 10 years scoring 4 (least reflexivity) compared with 42.7% (less than 1 year), 45.2% (1–5 years) and 44.4% (6–10 years).

The variables used in the multivariate analysis were chronic health, sex, length of time with current GP, age, and income. After controlling for these variables it was found that chronic health and age have statistically significant associations with doubting information from doctors.

Respondents who do not have a chronic health condition are less likely to doubt information from doctors (OR 0.65; CI 0.48–0.88). As age increases, the likelihood that respondents will doubt information from doctors decreases. Respondents aged 75–85+ and respondents who do not have a chronic health condition are the least likely to doubt information from doctors (Table 31).

Table 31: Multivariate odds ratios of factors associated with doubting information from doctors

		p	OR (CI)
Presence of a chronic health condition	Yes		1.00
	No	**.01**	0.65 (0.48–0.88)
Age	18–34		1.00
	35–54	**.03**	0.54 (0.32–0.93)
	55–74	**.00**	0.20 (0.12–0.34)
	75–85+	**.00**	0.18 (0.09–0.36)

Model stable (Hosmer and Lemeshow 2000). Chi square 0.46, p = 0.99

11. Have you ever doubted information from the following individuals? (all groups of individuals listed in the survey)

Respondents were asked if they have ever doubted information from groups of individuals (family members, friends/people you know personally, your family doctor, doctors in general). They were given a score on a scale of 4–8, with 8 indicating low reflexivity (people have never doubted information from any of the listed individuals). Listed below are the outcomes for multivariate odds ratios for each group of individuals (Table 32). Detailed analysis of univariate, bivariate and multivariate results for each variable can be found in Appendix 14 on the attached compact disc.

Table 32: Multivariate odds ratios of factors associated with doubting information from groups of individuals

Group of individuals	Independent variables		*p*	OR (CI)	Hosmer Lemeshow
Doubted information from family	**Age**	18–34		1.00	*Chi square 0.10 p = 1.00*
		35–54	**.05**	0.60 (0.37–0.99)	
		55–74	**.00**	0.27 (0.17–0.45)	
		74–85+	**.00**	0.10 (0.05–0.21)	
	Presence of a chronic health condition	Yes		1.00	
		No	**.02**	0.70 (0.52–0.95)	
Doubted information from friends/people you know personally	**Age**	18–34		1.00	*Chi square 5.77 p = 0.67*
		35–54	.21	0.70 (0.41–1.22)	
		55–74	**.00**	0.35 (0.20–0.59)	
		75–85+	**.00**	0.17 (0.09–0.36)	
	Presence of a chronic health condition	Yes		1.00	
		No	**.004**	0.63 (0.46–0.86)	
	Income	$0–49,999		1.00	
		$50,000–104,999	.27	1.23 (0.86–1.76)	
		$105,000–150,000+	**.01**	1.66 (1.11–2.47)	

When analysing for doubting information from individuals overall (all variables) the responses indicated low levels of reflexivity with regard to trust in individuals, with 28.7% of the respondents responding that they have not doubted information from any of the individuals listed in the survey.

A statistically significant association was found between doubting information from groups of individuals and the independent variables sex (p = 0.000), income (p = 0.001), age (p = 0.000), the presence of a chronic health condition (p = 0.011), and length of time with GP (p = 0.007).

Females (mean rank 444.14) are significantly more likely to doubt information from individuals than males (mean rank 514.61).

People in the lowest income bracket are the least likely to doubt information from individuals (mean rank 485.13) while those in the highest income bracket are the most likely to doubt individuals (mean rank 408.19).

People with a chronic health problem are significantly more likely to doubt information from individuals (mean rank 439.32) than those without a chronic health problem (mean rank 484.99).

Younger people are significantly more likely to doubt information from individuals. As age increases, individual levels of doubt decrease. People in the lowest age bracket are the most likely to doubt information from individuals (mean rank 253.41) while those in the highest age bracket are the least likely to doubt individuals (mean rank 511.22).

Respondents who have been seeing their GP for longer are less likely to doubt information from individuals. Respondents who have been seeing their doctors for less than one year had a mean rank of 404.56 while those who have been seeing their doctor for more than ten years had a mean rank of 495.88.

The variables used in the multivariate analysis were presence of a chronic health condition, sex, length of time with current GP, age, and income. After controlling for these variables it was found that presence of a chronic health condition, income, age, and sex have statistically significant associations with doubt in individuals.

Respondents who do not have a chronic health condition are less likely to doubt information from individuals (OR 0.57; CI 0.41–0.79) than respondents with a chronic health condition. Respondents who have an annual household income of $105,000–150,000+ are more likely to doubt information from individuals than those with an annual household income of $0–49,999 (OR 1.56; CI 1.02–2.37). Females are more likely than males to doubt information from individuals (OR 1.39; CI 1.01–1.91). As age increases, respondents are less likely to doubt information from individuals. Females, respondents aged 18–34, respondents with an annual household income of $105,000–150,000+, and respondents who have a chronic health condition are the most likely to doubt information from individuals (Table 33).

Table 33: Multivariate odds ratios of factors associated with doubting information from individuals

		p	OR (CI)
Presence of a chronic health condition	Yes		1.00
	No	**.001**	0.57 (0.41–0.79)
Income	$0–49,999		1.00
	$50,000–104,999	.35	1.20 (0.82–1.75)
	$105,000–150,000+	**.04**	1.56 (1.02–2.37)
Sex	Male		1.00
	Female	**.05**	1.39 (1.01–1.91)
Age	18–34		1.00
	35–54	**.04**	0.53 (0.29–0.96)
	55–74	**.00**	0.21 (0.11–0.38)
	75–85+	**.00**	0.14 (0.07–0.32)

Model stable (Hosmer and Lemeshow 2000). Chi square 7.12, p = 0.53

12. *Have you ever doubted information from the following organisations / institutions? (All organisations/institutions listed in the survey)*

Respondents were asked if they have ever doubted information from organisations (credit card companies, the media, and the national government). They were given a score on a scale of 3–6, with 6 indicating low reflexivity (people have never doubted information from any of the listed organisations). Listed below are the outcomes for multivariate odds ratios for each organisations/institution (Table 34). Detailed analysis of univariate, bivariate and multivariate results for each variable can be found in Appendix 14 on the attached compact disc.

Table 34: Multivariate odds ratios of factors associated with doubting information from institutions/organisations

Group of organisations/institutions	Independent variables		*p*	OR (CI)	Hosmer Lemeshow
Doubted information from the national government	**Income**	$0–49,999		1.00	*One only association*
		$50,000–104,999	.17	1.35 (0.88–2.06)	
		$105,000–150,000+	**.00**	2.90 (1.67–5.05)	
Doubted information from credit card companies	**Presence of a chronic health condition**	Yes		1.00	*Chi square 3.08 p = 0.54*
		No	**.02**	0.62 (0.42–0.92)	
	Age	18–34		1.00	
		35–54	.56	1.21 (0.64–2.30)	
		55–74	.28	0.71 (0.38–1.32)	
		75–85+	**.004**	0.33 (0.16–0.70)	
Doubted information from the media	**Presence of a chronic health condition**	Yes		1.00	*Chi square 4.83 p = 0.11*
		No	**.02**	0.43 (0.21–0.88)	
	Age	18–34			
		35–54	**.05**	2.85 (1.02–7.87)	
		55–74	.75	1.16 (0.46–2.89)	
		75-85+	.12	2.91 (0.75–11.27)	
	Income	$0–49,999		1.00	
		$50,000–104,999	**.03**	2.21 (1.10–4.43)	
		$105,000–150,000+	**.01**	3.41 (1.33–8.76)	
	Overall health	Very good		1.00	
		Good	**.07**	0.42 (0.16–1.07)	
		Very bad/bad/fair	**.01**	0.24 (0.09–0.66)	

There are high levels of doubting information from organisations (mean = 3.3828), with the majority of respondents (74.7%) having doubted information from all of the organisations listed in the survey (score of 3). All respondents have doubted information from at least one of the organisations listed as no participant scored 6 (they have not doubted any of the organisations).

A statistically significant association was found between the independent variables health status (p = 0.043), income (p = 0.001), presence of a chronic health condition (p = 0.000), age (p = 0.015), and the dependent variable measuring reflexivity (doubted information from organisations/institutions).

People with ‘bad’ health are significantly more likely to likely to doubt information from organisations (mean = 3.14) than people with health indicated to be ‘very good’, ‘good’, ‘fair’ and ‘very bad’ (means ≥ 3.35).

As income increases, the level of doubt in information from organisations increases. Respondents in the lowest income bracket are less likely to doubt organisations (mean = 3.48) while respondents in the highest income bracket are the most likely to doubt (mean = 3.25).

People with a chronic health condition are more likely to doubt information from organisations (mean = 3.31) than people without a chronic health condition (mean = 3.42).

As age increases, the level of doubt in information from organisations decreases. Respondents in the lowest age bracket (18–34) are most likely to doubt organisations (mean = 3.22). Respondents in the highest age bracket (85+) are the least likely to doubt (mean = 3.67).

The variables used in the multivariate analysis were overall health, chronic health, income, age, length of time with current GP, and sex. After controlling for these variables it was found that overall health, presence of a chronic health condition, and income have statistically significant associations with doubting information from organisations.

Respondents who do not have a chronic health condition are less likely to doubt information from organisations (OR 0.38; CI 0.021–0.69), as are people with vary bad/bad/fair health (OR 0.46; CI 0.23–0.95). Respondents who have an annual household income of $105,000–150,000+ are significantly more likely to doubt information from organisations (OR 3.58; CI 1.66–7.72) than respondents with an annual household income of $0–49,999. Respondents with a chronic health condition, respondents who have very good health, and respondents with an annual household income of $105,000–150,000+ are the most likely to doubt information from organisations (Table 35).

Table 35: Multivariate odds ratios of factors associated with doubting information from organisations/institutions (all variables)

		p	OR (CI)
Presence of a chronic health condition	Yes		1.00
	No	**.002**	0.38 (0.21–0.69)
Overall health	Very good		1.00
	Good	.34	0.73 (0.38–1.40)
	Very bad/bad/fair	**.04**	0.46 (0.23–0.95)
Income	$0–49,999		1.00
	$50,000–104,999	.21	1.41 (0.83–2.39)
	$105,000–150,000+	**.001**	3.58 (1.66–7.72)

Model stable (Hosmer and Lemeshow 2000). Chi square 4.87, p = 0.77

13. How much do you trust various groups of people?

a. All variables analysing for reflexivity

Respondents were asked whether they trust each of the following: family, neighbours, people they meet for the first time, family doctor, doctors in general, a doctor they are seeing for the first time, people of another religion, people of another nationality, local politician, national political leader, police officers. Respondents were given a score of 1 if they answered 'have not thought about it' (low reflexivity) and a score of 0 if they answered that they trust completely, somewhat, not very much and not at all.

Respondents were then given an overall score of 0–11 for their level of reflexivity in their decisions to trust, with 11 being the lowest level of reflexivity. The results indicate that people are highly reflexive with regard to their decisions to (dis)trust, with 76.7% of respondents scoring 0 (highest level of reflexivity). The lowest level of reflexivity with regard to the decision to (dis)trust was 7/11, scored by 0.5% of respondents.

A statistically significant association was found (p = 0.000) between sex and reflexivity with regard to trust. Males are much more likely to be reflexive with regard to their trust (mean = 0.33) than females (mean = 0.55).

Multivariate analysis was carried out using the variables overall health, IRSD quintiles, length of time with GP, age, and sex. No statistically significant associations were found after controlling for the variables.

14. How much do you trust various organisations/institutions?

a. All variables analysing for reflexivity with regard to trust in organisations/institutions

Respondents were asked whether they trust each of certain organisations or institutions (religious organisations, the press, the legal system, the media, your government, United Nations, banks). When analysing for reflexivity, respondents were given a score of 1 if they answered 'have not thought about it' (low reflexivity) and a score of 0 if they answered that they trust the organisation or institution completely, somewhat, not very much and not at all.

Respondents were then given a score of 0–7 for their level of reflexivity in making decisions to trust organisations/institutions, with 7 being the lowest level of reflexivity. The results indicate that people are highly reflexive with regard to their decisions to (dis)trust organisations, with 88.5% of respondents scoring 0 (highest level of reflexivity).

A statistically significant association was found between reflexivity with regard to trust in organisations and the independent variables overall health ($p = 0.029$), IRSD score ($p = 0.026$), sex ($p = 0.005$), age ($p = 0.017$), and income ($p = 0.003$).

Respondents in 'bad' or 'very bad' health are less reflexive about their trust in organisations (mean ≥ 0.50) compared with those in 'fair', 'good' and 'very good' health (mean ≤ 0.22).

Respondents living in areas classified as quintile 1 or 2 (disadvantaged areas) are less reflexive about trust in organisations (mean ≥ 0.29) than people living in quintiles 3–5 (mean ≤ 0.17).

Males are more reflexive with regard to their trust in organisations (mean = 0.16) than females (mean = 0.24).

Respondents in the age range of 18–24 are significantly less reflexive about their trust in organisations (mean = 0.75) than respondents in all other age brackets (mean ≥ 0.26).

The results indicate that people in the middle income bracket are the most reflexive with regard to trust in organisations (mean = 0.12). Respondents in the highest income bracket scored a mean of 0.16 and the lowest income group ($0–49,999) was the least reflexive with a mean score of 0.32.

The variables used in the multivariate analysis were overall health, IRSD quintile, sex, age, and income. After controlling for these variables it was found that age has a statistically significant association with reflexivity with regard to trust in organisations/institutions (Table 36). Respondents in the age bracket 55–74 are more reflexive with regard to trust in organisations/institutions (OR 11.85; CI 1.22–115.44) than respondents aged 18–34.

Table 36: Multivariate odds ratios of factors associated with reflexivity with regard to trust in organisations/institutions

		p	OR (CI)
Age	18–34		1.00
	35–54	.06	5.70 (0.94–34.68)
	55–74	**.03**	11.85 (1.22–115.44)
	75–85+	.40	2.66 (0.27–26.14)

Model stable (Hosmer and Lemeshow 2000). Chi square 0.000, p = 1.00

6.24 Interpersonal and institutional trust

15. How much do you trust various groups of people (all variables)?

Respondents were asked to what extent they trusted various groups of people (family, people they meet for the first time, neighbours, their regular doctor, doctors in general, a doctor they are seeing for the first time, national political leader, local politician, people of another religion, people of another nationality, police officers). Listed below are the outcomes for multivariate odds ratios for each individual variable (Table 37). Detailed analysis of univariate, bivariate and multivariate results for each variable can be found in Appendix 14 on the attached compact disc.

Table 37: Multivariate odds ratios of factors associated with trust in groups of individuals (all variables)

Group of individuals	Dependent Variables		*p*	OR (CI)	Hosmer Lemeshow
Trust family	**Overall health**	Very good		1.00	*Only one association*
		Good	**.01**	5.82 (1.59–21.36)	
		Very bad/bad/fair	.50	0.76 (0.33–1.71)	
Trust neighbours	**Age**	18–34		1.00	*Chi square 4.41 p = 0.62*
		35–54	**.02**	2.26 (1.16–4.39)	
		55–74	**.00**	8.71 (3.83–19.79)	
		75–85+	**.00**	16.01 (3.40–75.29)	
	Income	$0–49,999		1.00	
		$50,000–104,999	**.003**	2.72 (1.41–5.28)	
		$105,000–150,000+	**.02**	2.21 (1.14–4.27)	
Trust people you meet for the first time	**Age**	18–34		1.00	*Only one association*
		35–54	**.02**	1.85 (1.11–3.10)	
		55–74	**.00**	4.93 (2.87–8.47)	
		75–85+	**.00**	7.57 (3.24–17.67)	
Trust people of another religion	**Sex**	Male		1.00	*Chi square 0.53 p = 0.97*
		Female	**.02**	1.89 (1.12–3.21)	
	Age	18–34		1.00	
		35–54	.24	1.54 (0.75–3.14)	
		55–74	**.00**	4.14 (1.87–9.17)	
		75–85+	**.00**	7.33 (1.94–27.65)	
Trust national political leader	**Overall health**	Very good		1.00	*Chi square 1.64 p = 0.95*
		Good	**.04**	0.70 (0.49–*0.*99)	
		Very bad/bad/fair	**.02**	0.64 (0.43–*0.*93)	
	Age	18–34		1.00	
		35–54	.93	1.02 (0.62–1.70)	
		55–74	.65	1.13 (0.68–1.87)	
		75–85+	**.05**	1.88 (1.00–3.56)	
Trust your local politician	**Overall health**	Very good		1.00	*Chi square 4.73 p = 0.58*
		Good	**.02**	0.68 (0.49–0.94)	
		Very bad/bad/fair	**.00**	0.51 (0.36–0.74)	
	Income	$0–49,999		1.00	
		$50,000–104,999	**.01**	0.64 (0.47–0.88)	
		$105,000–150,000+	**.00**	0.51 (0.36–0.73)	
Trust police officers	**Age**	18–34		1.00	*Chi square 0.15 p = 1.00*
		35–54	**.04**	1.88 (1.04–3.41)	
		55–74	**.00**	2.73 (1.47–5.06)	
		75–85+	**.00**	3.82 (1.54–9.48)	
	Sex	Male		1.00	
		Female	**.00**	2.19	

Respondents were given a score from 1–4 for their level of trust in each of the 11 groups of people listed (1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all). In order to determine generalised trust in groups, each respondent's scores were summed to give an overall score from 11–44, with 11 being the most trusting for respondents who answered 'trust them completely' for all 11 groups. While only 0.2% had complete trust, none of the respondents indicated that they had no trust (score of 44). A mean of 21.5 indicates that respondents had relatively high levels of trust in groups of people.

A statistically significant association was found between trust and the independent variables of income (p = 0.000) and age (p = 0.000).

Respondents in the lowest income bracket ($0–49,999) were found to be more likely to trust groups of people (mean = 20.5) than people with household incomes of $50,000+ (mean ≥ 22.02).

Younger people are less likely to trust groups. The mean score for people aged 18–24 was 25.5. This score decreased as age increased, with the lowest mean score being 17.8 for those 85+.

The variables used in the multivariate analysis were age, income, and length of time with GP. After controlling for these variables it was found that age has a statistically significant association with individual trust (Table 38).

The findings suggest that respondents aged 55–85+ are more likely to trust groups of individuals than respondents aged 18–34 (OR 8.63; CI 2.84–26.25).

Table 38: Multivariate odds ratios of factors associated with trust in groups of individuals

		p	OR (CI)
Age	18–34		1.00
	35–54	.078	2.30 (0.91–5.82)
	55–85+	**.00**	8.63 (2.84–26.25)

16. How much do you trust the following organisations or institutions (all variables)?

Respondents were asked to what extent they trusted various organisations (religious organisations, the press, the legal system, the media, the national government, the United Nations, banks) on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Listed below are the outcomes for multivariate odds ratios for each organisation or institution (Table 39). Detailed analysis of univariate, bivariate and multivariate results for each variable can be found in Appendix 14 on the attached compact disc.

Table 39: Multivariate odds ratios of factors associated with trust in organisations/institutions (all variables)

Organisation/ institution	Independent variable		*p*	OR (CI)	
Trust religious organisations	**IRSD quintile**	Low		1.00	*Chi square 8.74 p = 0.37*
		2	**.05**	0.60 (0.36–1.00)	
		3	**.03**	0.56 (0.34–0.94)	
		4	.74	1.09 (0.65–1.82)	
		High	.18	0.71 (0.43–1.17)	
	Age	18–34		1.00	
		35–54	.47	1.20 (0.73–2.00)	
		55–74	**.00**	2.23 (1.32–3.76)	
		75–85+	**.00**	4.95 (2.34–10.50)	
	Sex	Male		1.00	
		Female	**.00**	1.95 (1.42–2.69)	
Trust the press	**Overall health**	Very good		1.00	*Chi square 1.72 p = 0.97*
		Good	**.08**	0.74 (0.52–1.04)	
		Very bad/bad/fair	**.02**	0.62 (0.42–0.92)	
	Income	$0–49,999		1.00	
		$50,000–104,999	**.00**	0.58 (0.41–0.81)	
		$105,000–150,000+	**.07**	0.72 (0.50–1.03)	
Trust the media	**Income**	$0–49,999		1.00	*Chi square 12.41 p = 0.13*
		$50,000–104,999	**.00**	0.58 (0.40–0.84)	
		$105,000–150,000+	.37	0.84 (0.58–1.23)	
	Presence of a chronic health condition	Yes		1.00	
		No	**.02**	1.47 (1.05–2.04)	
	Length of time with current GP	< 1 year		1.00	
		1–5 years	**.00**	2.36 (1.36–4.10)	
		6–10 years	.11	1.67 (0.90–3.11)	
		> 10 years	**.05**	1.726	
Trust United Nations	**Sex**	Male		1.00	*Only one association*
		Female	**.000**	1.88 (1.44–2.56)	
Trust banks	**Sex**	Male		1.00	*Chi square 4.04 p = 0.78*
		Female	**.02**	1.44 (1.07–1.93)	
	Overall health	Very good		1.00	
		Good	.11	0.76 (0.53–1.06)	
		Very bad/bad/fair	**.00**	0.52 (0.35–0.76)	
	Age	18–34		1.00	
		35–54	.14	1.47 (0.89–2.44)	
		55–74	**.00**	2.35 (1.41–3.92)	
		75–85+	**.00**	4.70 (2.41–9.17)	

In order to determine generalised trust in organisations, each respondent's scores were summed to give a total of 7–28, with 7 being the most trusting for respondents answering 'trust them completely' to all 7 groups of organisations. While only 0.2% had complete trust (score of 7), 1.8% of the respondents indicated no trust (score of 28). A mean of 18.7 indicates that overall across the respondent groups the level of trust in organisations is not very high.

A statistically significant association was found between generalised trust in organisations and the independent variables of sex (p = 0.000) and the presence of a chronic health conditions (p = 0.004).

Males are slightly less likely (mean = 19.42) than females (mean = 18.21) to trust in organisations. People with a chronic health problem are less likely (mean = 19.02) than those without a chronic health problem (mean = 18.55) to trust in organisations.

The variables used in the multivariate analysis were overall health, chronic health, sex, age, and income. After controlling for these variables it was found that chronic health, income, and sex have statistically significant associations with trust in organisations (Table 40).

People without a chronic health condition are more likely than those with a chronic health condition to trust organisations (OR 1.51; CI 1.11–2.07). Respondents with an income of $50,000–104,999 are less likely to trust organisations (OR 0.66; CI 0.46–0.93) and females are more likely than males to trust organisations (OR 1.44; CI 1.07–1.94). Females, respondents without a chronic illness, and respondents with an annual household income of $50,000–104,999 are the most likely to trust organisations.

Table 40: Multivariate odds ratios of factors associated with trust in organisations/institutions

		p	OR (CI)
Presence of a chronic health condition	Yes		1.00
	No	**.010**	1.51 (1.11–2.07)
Income	$0–49,999		1.00
	$50,000–104,999	**.018**	0.66 (0.46–0.93)
	$105,000–150,000+	.115	0.74(0.51–1.08)
Sex	Male		1.00
	Female	**.017**	1.44(1.07–1.94)

Model stable (Hosmer and Lemeshow 2000). Chi square 2.41, p = 0.96

17. *If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?*
    a. *The way they are dressed*

Respondents were asked to what extent the way the doctor was dressed would affect their trust in a doctor they had never seen before. Reponses indicated that for the majority of respondents, the way that a doctor they have never seen before dressed would not influence their trust. Only 6.6% suggested that they way the doctor was dressed would influence their decision to trust a lot while 42.1% indicated it would influence it somewhat and 51.2% indicated it would not influence their trust at all.

A statistically significant association was found between the level of influence on respondents' trust of the way a doctor they have never seen before is dressed and the independent variables income ($p = 0.034$; Cramer's $V = 0.077$), age ($p = 0.028$; Cramer's $V = 0.105$), IRSD quintile ($p = 0.003$; Cramer's $V = 0.112$), and sex ($p = 0.009$; Cramer's $V = 0.101$).

Respondents with lower incomes are less likely to be influenced by the way a doctor is dressed, with 56.9% of respondents in the lowest income ($0–49,999) bracket indicating that the way a doctor is dressed would not influence their trust at all compared with 43.9% of those in the highest income bracket and 50.8% of those in the middle bracket ($50,000–104,999).

The way a doctor is dressed influences trust in respondents aged 18–44 year more than in respondents aged 45+, with 10.3% of the cohort aged 18–24 suggested the way the doctor is dressed affects their trust a lot, which is similar to the findings of those aged 25–34 (12.5%). However, less than 5.8% in the cohorts aged 35+ indicated that the way a doctor is dressed would influence their trust a lot.

Respondents living in areas identified as IRSD quintile 1 are the least likely to have their trust influenced by the way a doctor is dressed, with 63.6% of respondents living in quintile 1 indicating the way a doctor dresses would not influence their trust at all while ≤ 54.5% of respondents living in the other quintiles saying the way a doctor dresses would not influence their trust at all (Table 41).

Table 41: Association between IRSD quintile and the level of influence the way a doctor dresses has on trust

		The way the doctor dresses influences trust		
		A lot	**Somewhat**	**Not at all**
Quintile	Lowest	6.5%	29.9%	63.6%
	2.00	7.1%	41.5%	51.4%
	3.00	6.7%	38.8%	54.5%
	4.00	6.1%	43.7%	50.3%
	Highest	6.8%	53.4%	39.7%

The findings indicate that the way a doctor is dressed influences level of trust in a doctor they have never seen before slightly more in females than in males, with 8.7% of females compared with only 3.6% of males saying that the way the doctor is dressed would influence their level of trust a lot.

The variables used in the multivariate analysis were overall health, chronic health, IRSD quintile, sex, age, and income. After controlling for these variables, it was found that IRSD quintile and age have statistically significant associations with the extent to which trust is influenced by the way a doctor is dressed (Table 42).

Older respondents are less likely to say that the way a doctor is dressed influences their trust. People who live in areas identified as IRSD quintile 4 and 5 are significantly more likely to say that the way a doctor is dressed influences their trust (OR ≥ 1.65). Respondents aged 18–34 and respondents from areas identified as IRSD quintile 5 are the most likely to say that they way a doctor is dressed influences their trust.

Table 42: Multivariate odds ratios of factors associated with the extent to which the way a doctor is dressed influences trust

		p	OR (CI)
Age	18–34		1.00
	35–54	.24	0.74 (0.46–1.21)
	55–74	**.01**	0.53 (0.33–0.87)
	75–85+	**.05**	0.51 (0.26–1.00)
IRSD quintile	Low		1.00
	2	.25	1.32 (0.82–2.14)
	3	.31	1.29 (0.79–2.09)
	4	**.04**	1.65 (1.03–2.64)
	High	**.00**	2.42 (1.52–3.84)

Model stable (Hosmer and Lemeshow 2000). Chi square 3.10, p = 0.93

18. *If you had a health problem that needed immediate attention and your usual doctors was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?*

    a. *They are wearing a white coat*

Respondents were asked to what extent the doctor wearing a white coat would affect their trust in a doctor they had never seen before. Reponses indicated that for the majority of respondents, the fact that a doctor they have never seen before is wearing a white coat would not influence their decision to trust. Only 0.9% suggested that wearing a white coat would influence their decision to trust while 7.1% indicated it would influence it somewhat and 92% indicated it would not influence their trust at all.

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No multivariate analyses were carried out because only IRSD quintile had a probability of≤ 0.250. When analysing for associations between trust being influenced by the doctor wearing a white coat and the independent variables overall health and age, no suitable collapse could be found to help the data meet the assumptions; chi square analysis could not be carried out. According to Hosmer and Lemeshow (2000), the probabilities found when analysing the associations between the level of influence the doctor wearing a white coat has on trust and the independent variables presence of a chronic health condition, income, and length of time with current GP were too high to be included in the multivariate models.

19. *If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?*

    a. *They seem to be caring*

Respondents were asked to what extent the doctor seeming to be caring would affect their trust in a doctor they had never seen before. Reponses indicated that for the majority of respondents, the fact that a doctor seemed to be caring would influence their decision to trust, with 54.2% suggesting that the doctor seeming to be caring would influence their decision to trust a lot, 33.0% responded that it would influence their decision to trust somewhat and 12.8% indicated it would not influence their trust at all.

A statistically significant association was found between the extent to which the doctor seemed to be caring and the independent variables income (p = 0.029;

Cramer's V = 0.077), age (p = 0.001; Cramer's V = 0.127), IRSD quintile (p = 0.028; Cramer's V = 0.095), and sex (p = 0.000; Cramer's V = 0.190).

Respondents in the lowest income bracket ($0–49,999) were found to be the least influenced in terms of trust by the doctor seeming to be caring, with 50.1% indicating it would influence them a lot. The proportion of respondents answering it would influence their decision a lot increases with income, with ≥ 55.4% of the respondents with an annual household income above $49,999 indicating that the doctor seeming to be caring would influence their trust a lot.

The fact that a doctor seems to be caring influences trust in respondents aged 18–34 more than respondents in any other age cohorts. The oldest cohort (aged 65+) was found to be least influenced by their doctor seeming to be caring. Only 45.5% of respondents aged over 65 indicated that it would affect their trust a lot compared with all other cohorts (≥ 51.2%). The cohort most influenced by the doctor seeming to be caring were those 18–34, with 62.5% indicating it would influence their trust a lot.

People living in an area identified as IRSD quintile 1 (most disadvantaged) were found to be the least likely to be influenced by the doctor seeming to be caring. As IRSD quintile increases from 1 to 5, the percentage of people whose trust is influenced not at all by the doctor seeming to be caring decreases, with the exception of quintile 4 where the percentage of respondents answering not at all was slightly higher than quintile 3. A total of 18.0% of people living in areas identified as quintile 1 said that the doctor seeming to be caring influenced their level of trust not at all compared with 6.7% of people in quintile 5 (most advantaged (Table 43).

Table 43: Association between IRSD quintile and the level of influence of the doctor seeming to be caring on trust

		The doctor appearing to be caring influences trust		
		A lot	**Somewhat**	**Not at all**
Quintile	Lowest	57.1%	24.8%	18.0%
	2.00	51.3%	35.6%	13.1%
	3.00	55.2%	32.6%	12.2%
	4.00	52.7%	31.7%	15.6%
	Highest	55.6%	37.7%	6.7%

The doctor seeming to be caring influences females' level of trust in a doctor they have never seen before more than males, with 61.7% of females but only 43.1% of

males saying that the doctor seeming to be caring would influence their level of trust a lot.

The variables used in the multivariate analysis were length of time with current GP, IRSD quintile, sex, age, and income. After controlling for these variables it was found that IRSD quintile, sex, and income have statistically significant associations with the extent to which trust is influenced by the doctor seeming to be caring (Table 44).

Respondents living in areas identified as IRSD quintile 5 are significantly more likely to say that a doctor who seems to be caring influences their trust (OR 2.17; CI 1.07–4.38). Females are more likely to say that the doctor seeming to be caring influences their trust (OR 2.39; 1.59–3.60), as are respondents with an annual household income of ≥ $50,000. Females, respondents with an annual household income of $105,000–150,000+, and respondents who live in an area identified as IRSD quintile 5 are the most likely to say that a doctor who seems to be caring influences their trust.

Table 44: Multivariate odds ratios of factors associated with the extent to which the way a doctor seems to be caring influences trust

		p	OR (CI)
IRSD quintile	Lowest		1.00
	2	.52	1.23 (9.65–2.33)
	3	.48	1.26 (0.661–2.40)
	4	.80	0.93 (0.51–1.68)
	Highest	**.03**	2.17 (1.07–4.38)
Sex	Male		1.00
	Female	**.00**	2.39 (1.59–3.60)
Income	$0–49,999		1.00
	$50,000–104,999	**.03**	1.65 (1.04–2.63)
	$105,000–150,000+	**.01**	2.18 (1.27–3.76)

Model stable (Hosmer and Lemeshow 2000). Chi square 6.49, p = 0.59

20. *If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?*
    a. *They appear to be competent in their ability as a doctor*

Respondents were asked to what extent their doctor appearing to be competent would affect their trust in a doctor they had never seen before. Reponses indicated that for the majority of respondents, the fact that a doctor appears to be competent

would influence their decision to trust, with 75.7% suggesting that the doctor appearing competent would influence their decision to trust a lot, 15.2% indicating it would influence it somewhat, and 9.1% suggesting it would influence their trust not at all.

A statistically significant association was found between the level of influence the doctor appearing to be competent has on trust and the independent variables income ($p = 0.000$; Cramer's $V = 0.140$), age ($p = 0.000$; Cramer's $V = 0.170$), IRSD quintile ($p = 0.000$; Cramer's $V = 0.124$), sex ($p = 0.000$; Cramer's $V = 0.153$), and the length of time with current GP ($p = 0.019$, Cramer's $V = 0.090$).

As income increases, the level of influence a doctor appearing to be competent has on trust also increases, with 67.8% of people in the lowest income bracket influenced by the appearance of competence a lot. The percentage increases with income, with 86.5% percent in the highest income bracket indicating the appearance of competence would influence their trust a lot.

The fact that a doctor appears to be competent influences trust in respondents aged 18–34 more than respondents in any other cohorts, with 88.6% indicating it affects their trust a lot. The oldest respondents (aged 65+) were found to be least affected by their doctor appearing competent, with 61.8% indicating it would affect their trust a lot.

People living in an area identified as IRSD quintile 1 (most disadvantaged) are least likely to be influenced in their level of trust in doctors by the doctor appearing to be competent. As IRSD quintile increases from 1 to 5, the percentage of people whose trust is influenced a lot by their doctor appearing to be competent increases, except that in quintile 4 the percentage of respondents answering 'a lot' was slightly lower than in quintile 3. In all, 65.9% of people living in areas identified as quintile 1 said that the doctor appearing to be competent influences their trust a lot compared with 81.4% of people in quintile 5 (most disadvantaged).

The appearance of competence in a doctor they have never seen influences levels of trust in females more than males, with 81.2% of females but only 67.8% of males saying that the doctor appearing competent would influence their level of trust a lot.

Respondents who have been seeing their GP for 1–5 years are the most likely to say that the doctor appearing to be competent affects their trust a lot, with 81.2% of respondents who have been seeing their GP for 1–5 years saying that the doctor appearing competent affects their trust a lot, which is significantly higher than those who have been seeing their GP for any of other length of time (Table 45).

Table 45: Association between length of time seeing current GP and the level of influence the doctor appearing to be competent has on trust

		The doctor appearing to be competent influences trust		
		A lot	**Somewhat**	**Not at all**
Length of time with current GP	< 1 yr	73.9%	18.5%	7.6%
	1–5 yrs	81.2%	13.6%	5.2%
	6–10 yrs	70.1%	15.9%	14.0%
	> 10 yrs	72.6%	16.4%	11.0%

The variables used in the multivariate analysis were overall health, length of time with current GP, IRSD quintile, sex, age, and income. After controlling for these variables it was found that IRSD quintile, sex, and income have statistically significant associations for the extent to which the doctor appears to be competent influences trust (Table 46).

Respondents who live in areas identified as IRSD quintile 2 and 4 are significantly more likely than respondents living in quintile 1 to say that the doctor appearing to be competent influences their trust. Females are significantly more likely than males to say the doctor appearing to be competent influences their trust (OR 2.17; 1.34–3.51). Respondents with an annual household income of ≥ $50,000 are significantly more likely to say that the doctor appearing to be competent influences their trust than respondents with an annual household income of $0–49,999. Females, respondents who live in an area identified as IRSD quintile 5, and respondents with an annual household income of $105,000–150,000+ are the most likely to say that the doctor appearing to be competent influences their trust.

Table 46: Multivariate odds ratios of factors associated with the extent to which the doctor appearing to be competent influences respondents' trust

		p	OR (CI)
IRSD quintile	Lowest		1.00
	2	**.06**	2.07 (0.97–4.43)
	3	.30	1.46 (0.71–3.00)
	4	.72	0.89 (0.47–1.70)
	Highest	**.01**	3.41 (1.38–8.41)
Sex	Male		1.00
	Female	**.00**	2.17 (1.34–3.51)
Income	$0–49,999		1.00
	$50,000–104,999	**.02**	1.86 (1.11–3.12)
	$105,000–150,000+	**.00**	8.23 (3.19–21.24)

Model stable (Hosmer and Lemeshow 2000). Chi square 4.58, p = 0.80

21. *If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?*
    a. *They appear to be older than 40*

Respondents were asked to what extent the doctor appearing to be older than 40 would affect their trust in a doctor they had never seen before. Reponses indicated that for the majority of respondents, the fact that a doctor they have never seen before appeared to be older than 40 would not influence their decision to trust. Only 5.5% suggested that appearing to be over the age of 40 would influence their decision to trust a lot while 15.9% indicated it would influence it somewhat and 78.6% suggesting it would influence their trust not at all.

Statistically significant associations were found between the extent to which a doctor appearing to be over 40 would influence trust and the independent variables income (p = 0.033; Cramer's V = 0.076), age (p = 0.000; Cramer's V = 0.168), and length of time with current GP (p = 0.023, Cramer's V = 0.089).

Respondents in the lowest income bracket ($0–49,999) were found to be most influenced in terms of trust by their doctor appearing to be over 40, with 7.6% indicating that it would influence them a lot. The percentage of respondents who responded that the doctor appearing over 40 would influence their trust decreases as income increases, with 5.1% of those in the middle income bracket and 3.1% in

the highest income bracket, respectively indicating the doctor appearing to be over 40 would affect their trust a lot.

Respondents aged 35–74 are significantly more likely that those aged younger than 34 and older than 74 to be influenced in terms of trust by the doctor appearing to be over 40 (Table 47).

Table 47: Association between age and the level of influence the doctor appearing to be older than 40 has on trust

		Age			
		18–34	**35–54**	**55–74**	**75–85+**
Extent to which a doctor appearing to be older than 40 influences their trust	Influences their trust	8.5%	35.2%	38.2%	18.2%
	Does not influence their trust	11.9%	41.3%	40.3%	6.6%

Respondents who have been seeing their doctor for between 1–10 years are significantly less likely to say that the doctor appearing to be older than 40 influences their trust a lot (≤ 3.7%) than respondents who have been seeing their doctor longer than 10 years or less than 1 year (≥ 7.9%) (Table 48).

Table 48: Association between length of time with current GP and the level of influence the doctor appearing to be older than 40 has on trust

		The doctor appears to be older than 40		
		A lot	**Somewhat**	**Not at all**
Length of time with current GP	< 1 year	8.4%	19.3%	72.3%
	1–5 years	3.7%	14.6%	81.7%
	6–10 years	2.5%	12.9%	84.7%
	> 10 years	7.9%	17.5%	74.6%

The variables used in the multivariate analysis were length of time with GP, age, and income. After controlling for these variables it was found that age and length of time with GP have statistically significant associations with the extent to which the doctor appearing to be older than 40 influences trust (Table 49).

Respondents who have been seeing their GP for between six and ten years are significantly less likely to say that the doctor appearing to be older than 40 influences their trust (OR 0.47; CI 0.24–0.94) than respondents who have been seeing their GP for any other length of time. Respondents aged 75 and over are significantly more likely to say that the doctor appearing to be over 40 influences their trust (OR 3.60; CI 1.67–7.75) than respondents aged 18–34. Respondents aged 75 and over and respondents who have been seeing their GP for less than

one year are the most likely to say that the doctor appearing to be older than 40 influences their trust.

Table 49: Multivariate odds ratios of factors associated with the extent to which the doctor appearing to be older than 40 influences trust

		p	OR (CI)
Length of time with current GP	< 1 year		1.00
	1–5 years	.27	0.72 (0.41–1.28)
	6–10 years	**.03**	0.47 (0.24–0.94)
	> 10 years	.88	1.05 (0.60–1.83)
Age	18–34		1.00
	35–54	.72	1.13 (0.59–2.17)
	55–74	.54	1.23 (0.64–2.37)
	75–85+	**.00**	3.60 (1.67–7.75)

Model stable (Hosmer and Lemeshow 2000). Chi square 3.05, p = 0.93

22. If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?

a. They appear to be younger than 40

Respondents were asked to what extent their doctor appearing to be younger than 40 would affect their trust in a doctor they had never seen before. Reponses indicate that for the majority of respondents, the fact that a doctor they have never seen before appears to be younger than 40 years of age would not influence their decision to trust. Only 1.8% suggested that the doctor appearing to be younger than 40 years old would influence their decision to trust a lot while 14.6% indicated it would influence it somewhat and 83.6% suggested it would influence their trust not at all.

A statistically significant association was found in the extent to which a doctor appearing to be over 40 would influence trust and the independent variables of age (p = 0.007; Cramer's V = 0.125) and income (p = 0.014; Cramer's V = 0.099).

Respondents aged 75 and over are significantly more likely that those aged younger than 75 to be influenced in terms of trust by the doctor appearing younger than 40, with 31.7% of respondents 75–85+ indicating it would influence their trust compared with ≤ 15.4% in all other cohorts (Table 50).

Table 50: Association between age and the level of influence the doctor appearing to be younger than 40 has on trust

		Level of influence	
		The doctor appearing to be younger than 40 does not influence trust	**The doctor appearing to be younger than 40 influences trust**
Age	18–34	87.5%	12.5%
	35–54	84.6%	15.4%
	55–74	85.2%	14.8%
	75–85+	68.3%	31.7%

Respondents in the income bracket $0–49,999 are significantly more likely to be influenced in terms of trust by the doctor appearing to be younger than 40 than respondents in higher income brackets, with 20.8% of respondents in the income bracket $0–49,999 indicating that the doctor appearing to be younger than 40 influences their trust while ≤ 13.9% of respondents in the other two income brackets stating that it would influence their trust (Table 51).

Table 51: Association between income and the level of influence the doctor appearing to be younger than 40 has on trust

		Level of influence	
		Does not influence their trust	**Influences their trust**
Income	$0–49,999	79.2%	20.8%
	$50,000–104,999	87.2%	12.8%
	$105,000–150,000+	86.1%	13.9%

The variables used in the multivariate analysis were age and income. After controlling for these variables it was found that age has a statistically significant association with the extent to which the doctor appearing to be younger than 40 influences trust (Table 52).

Respondents aged 75 and over are significantly more likely to say that the doctor appearing to be younger than 40 influences their trust (OR 3.24; CI 1.41–7.47) than respondents aged 18–34.

Table 52: Multivariate odds ratios of factors associated with the extent to which the doctor appearing to be younger than 40 influences trust

		p	OR (CI)
Age	18–34		1.00
	35–54	.50	1.28 (0.63–2.58)
	55–74	.59	1.22 (9.60–2.46)
	75–85+	**.01**	3.24 (1.41–7.47)

23. *If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?*

    a. *They are female*

Respondents were asked to what extent a doctor being female would affect their trust in a doctor they had never seen before. Reponses indicated that for the majority of respondents, the fact that a doctor is female does not influence their decision to trust a doctor they have never seen before. Only 5.7% suggested that the doctor being female would influence their decision to trust a lot, while 10.4% indicated it would influence trust somewhat and 84.0% suggested it would influence their trust not at all.

A statistically significant association was found between the level of influence a doctor being female would have on trust and the independent variables income ($p = 0.000$; Cramer's $V = 0.115$), IRSD quintile ($p = 0.023$; Cramer's $V = 0.098$), and age ($p = 0.006$; phi = 0.105).

Respondents in the lowest income bracket are more likely to be influenced by the doctor being female, with. 77.1% of respondents in the lowest income bracket, compared with 87.9% and 89.5% in the middle and highest income brackets respectively, indicating that the doctor being female would influence their trust not at all.

Respondents living in areas identified as IRSD quintile 2 and 4 are most likely to be influenced a lot by the doctor being female in terms of their trust in a doctor they have never seen before. Less than 4.2% of respondents living in areas identified as IRSD quintiles 1, 3 and 5 responded that the doctor being female would influence their trust a lot. Conversely, 8.1% of respondents living in quintiles 2 and 4 suggested their trust in a doctor they have never seen before was influenced a lot by the doctor being female (Table 53).

Table 53: Association between IRSD quintile and the level of influence the doctor being female has on trust

		The doctor being female influences trust		
		A lot	**Somewhat**	**Not at all**
Quintile	Lowest	3.3%	13.8%	82.9%
	2.00	9.2%	10.9%	79.9%
	3.00	3.4%	6.7%	89.9%
	4.00	8.1%	8.1%	83.8%
	Highest	4.1%	12.8%	83.1%

A doctor being female influences females' level of trust in a doctor they have never seen before more than males, with 7.6% of females but only 2.9% of males saying that the doctor being female would influence their level of trust a lot.

The variables used in the multivariate analysis were chronic health, IRSD quintile, sex, age, and income. After controlling for these variables, it was found that IRSD quintile, age, income, and chronic health have statistically significant associations with the extent to which the doctor being female influences trust (Table 54).

Respondents aged 35–74 are significantly less likely to say that the doctor being female influences their trust than respondents aged 18–34 (OR≤ 0.52). Respondents who do not have a chronic health condition are significantly more likely to say that the doctor being female influences their trust (OR 1.69; CI 1.06–2.71) than respondents with a chronic health condition. Respondents who live in areas identified as IRSD quintile 3 are significantly less likely to say the doctor being female influences their trust than respondents living in areas identified as IRSD quintile 1 (OR 0.45; CI 0.21–0.96), as are people with an annual household income of $50,000+ compared with respondents with an income of $0–49,999. Respondents without a chronic health condition, respondents aged 18–34, respondents living in an area identified as IRSD quintile 1, and respondents with an annual household income of $0–49,999 are the most likely to say that the doctor being a female influences their trust.

Table 54: Multivariate odds ratios of factors associated with the extent to which the doctor being female influences trust

		p	OR (CI)
Age	18–34		1.00
	35–54	**.00**	0.35 (0.18–0.67)
	55–74	**.04**	0.52 (0.28–0.97)
	75–85+	.62	0.81 (0.35–1.88)
Presence of a chronic health condition	Yes		1.00
	No	**.03**	1.69 (1.06–2.71)
IRSD quintile	Lowest		1.00
	2	.77	1.10 (0.58–2.09)
	3	**.04**	0.45 (0.21–0.96)
	4	.42	0.76 (0.39–1.480
	Highest	.99	1.00 (0.52–1.92)
Income	$0–49,999		1.00
	$50,000–104,999	**.01**	0.49 (0.29–0.82)
	$105,000–150,000+	**.01**	0.45 (0.25–0.81)

Model stable (Hosmer and Lemeshow 2000). Chi square 7.57, p = 0.48

24. If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?

a. They are male

Respondents were asked to what extent a doctor being male would affect their trust in a doctor that they had never seen before. Reponses indicate that for the majority of respondents, the fact that a doctor they have never seen before is male does not influence their trust in a doctor they have never seen before. Only 3.9% suggested that the doctor being male would influence their decision to trust a lot, while 10.8% indicated it would influence it somewhat and 85.3% suggested it would influence their trust not at all.

A statistically significant association (p = 0.001; Cramer's V = 0.099) was found between income and the amount of influence a doctor being male has on trust. Respondents in the lowest income bracket are much more likely to be influenced by the doctor being male, with 79.8% indicating that it would influence their trust not at

all compared with 89.6% and 89.8% in the middle and highest income brackets indicating that the doctor being male would influence their trust not at all.

The variables used in the multivariate analysis were sex, age, and income. After controlling for these variables it was found that income and age have statistically significant associations with the extent to which the doctor being male influences trust (Table 55).

Respondents aged 35–54 are significantly less likely to say that the doctor being male influences their trust (OR 0.42; CI 0.22–0.83) than respondents aged 18–34. Respondents with an annual household income of $50,000+ are significantly less likely to say that the doctor being male influences their trust than respondents with an annual household income of $0–49,999. Respondents aged 18–34 and respondents with an annual household income of $0–49,999 are the most likely to say that they doctor being male influences their trust.

Table 55: Multivariate odds ratios of factors associated with the extent to which the doctor being male influences trust

		p	OR (CI)
Age	18–34		1.00
	35–54	**.01**	0.42 (0.22–0.83)
	55–74	.10	0.58 (0.30–1.10)
	75–85+	.57	1.27 (0.56–2.87)
Income	$0–49,999		1.00
	$50,000–104,999	**.02**	0.53 (0.32–0.90)
	$105,000–150,000+	**.05**	0.55 (0.31–0.99)

Model stable (Hosmer and Lemeshow 2000). Chi square 2.67, p = 0.85

25. If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?

a. All variables

Respondents were asked whether certain doctor characteristics would influence their decision to trust a doctor they had never seen before. Their responses were summed to give a score of 8–24, with 8 indicating that each characteristic would influence their decision to trust a doctor they had never seen before a lot and 24

indicating that each of the characteristics would influence their trust not at all. The mean score was 19.52, indicating that in general respondents' trust is influenced by the listed characteristics.

A statistically significant association was found between the level of influence of certain doctor characteristics on respondents' trust in a doctor they have never seen before and the independent variables age ($p = 0.005$) and IRSD quintile ($p = 0.005$).

Respondents aged 18–24 were the most likely cohort to be influenced by the characteristics listed (mean = 17.9524). Respondents aged 65–74 were found to be the least likely to be influenced (mean = 20.0827). All other age groups were fairly similar, with mean scores of 18–19.

Respondents living in areas identified as IRSD quintile 1 (most disadvantaged) were less likely to be influenced by certain doctor characteristics (mean = 20.06) than people living in areas identified as being IRSD quintile 2–5 (means ≤ 19.72) (Table 56).

Table 56: Association between IRSD quintile and the level of influence certain GP characteristics have on respondent trust

Quintile	N	Mean
Lowest	138	20.0580
2.00	165	19.2788
3.00	170	19.7235
4.00	181	19.5746
Highest	210	19.1381

The variables used in the multivariate analysis were chronic health, age, and IRSD quintile. After controlling for these variables, it was found that age has a statistically significant association with the level of influence certain characteristics have on trust in doctors (Table 57).

Respondents aged 35–54 are significantly less likely than those 18–34 to be influenced in terms of trust by certain GP characteristics (OR 0.42; CI 0.19–0.94).

Table 57: Multivariate odds ratios of factors associated with regard to the extent to which certain GP characteristics influence trust

		p	OR (CI)
Age	18–34		1.00
	35–54	**.04**	0.42 (0.19–0.94)
	55–74	.37	0.71 (0.34–1.50)
	75–85+	.23	1.74 (0.70–4.36)

6.25 Operationalisation of trust

The following analyses were carried out as a means of investigating the operationalisation of trust. Data were analysed to investigate the association between interpersonal trust and institutional trust, and the association between two or more institutions. Analyses were carried out investigating the association between respondents' trust in doctors in general, and a doctor they are seeing for the first time (interpersonal trust). In order to determine the interrelationships between trust in individuals, the seven demographic characteristics and trust in individuals were controlled for. In addition, the data were analysed for associations between trust in doctors and trust in organisations. As a means of investigating this, analyses were carried out investigating the association between respondents' trust in doctors in general, and a doctor they are seeing for the first time, controlling for the seven demographic variables and trust in all organisations/institutions.

Additional analyses were run investigating trust in doctors in general and a doctor the respondents had never seen before, controlling for the seven demographic characteristics, trust in individuals, and trust in organisations/institutions.

These analyses are relevant in that they have assisted in determining the relationship between trust in individuals and trust in other individuals/institutions as a means of investigating the operationalisation of trust (the one-dimensional or multidimensional nature of trust).

Although the intention was to use the variable of trust in respondents' regular doctor as one of the dependent variables, the number of respondents who distrusted their doctor was too small to carry out the investigation. As a result, only the variables trust in doctors in general and trust in a doctor the respondent is seeing for the first time were used as dependent variables. In addition, the variable 'trust in regular doctor' was removed as one of the independent variables due to low cell count.

26. *Investigating the association between the dependent variable of trusts doctors in general and the independent variables IRSD, chronic health, overall health, sex, age, length of time with current GP, income, trusts police officers, trusts doctor the respondent is seeing for the first time, trusts people of another religion, trusts people of another nationality, trusts neighbours, trusts family, trusts their national political leader, trusts their local politician, and trusts people the respondent meets for the first time.*

Results indicate that respondents who trust their local politician (OR 2.98; CI 1.39–6.38), trust police officers (OR 2.95; CI 1.51–5.75), and trust doctors they are seeing for the first time (OR 28.99; CI 15.31–54-88) are the most likely respondents to trust doctors in general (Table 58).

Table 58: Multivariate odds ratios of factors associated with trust in doctors in general after controlling for trust in all groups or individuals and demographic variables

		p	OR (CI)
Trusts their local politician	No		1.00
	Yes	**.005**	2.98 (1.39–6.38)
Trusts police officers	No		1.00
	Yes	**.002**	2.95 (1.51–5.75)
Trusts a doctor they are seeing for the first time	No		1.00
	Yes	**.000**	28.99 (15.31–54.88)

Model stable (Hosmer and Lemeshow 2000). Chi square 0.65, p = 0.89

27. *Investigating the association between the dependent variable trusts a doctor the respondent is seeing for the first time and the independent variables IRSD, chronic health, overall health, sex, age, length of time with current GP, income, trusts police, trusts doctors in general, trusts people of another religion, trusts people of another nationality, trusts neighbours, trusts family, trusts their national political leader, trusts their local politician, and trusts people the respondent meets for the first time.*

The findings indicate that respondents who trust people they meet for the first time (OR 10.33; CI 4.61–23.14), trust doctors in general (OR 77.40; CI 29.19–205.19), and trust people of another religion (OR 3.09; CI 1.49–6.40) are the most likely respondents to trust doctors they are seeing for the first time (Table 59).

Table 59: Multivariate odds ratios of factors associated with trust in a doctor the respondent is seeing for the first time after controlling for trust in all groups or individuals and demographic variables

		p	OR (CI)
Trusts people they meet for the first time	No		1.00
	Yes	**.000**	10.33 (4.61–23.14)
Trusts doctors in general	No		1.00
	Yes	**.000**	77.40 (29.19–205.19)
Trusts people of another religion	No		1.00
	Yes	**.002**	3.09 (1.49–6.40)

Model stable (Hosmer and Lemeshow 2000).Chi square 0.35, p = 0.84

28. *Investigating the association between the dependent variable of trusts doctors in general, and the independent variables IRSD, chronic health, overall health, sex, age, length of time with current GP, income, trusts religious organisations, trusts the press, trusts the legal system, trusts the media, trusts the national government, trusts the United Nations, and trusts banks.*

The results show that respondents from the $105,000–150,000+ income bracket are significantly less likely to trust organisations than respondents with an annual household income of $0–49,999. Results indicate that respondents with an income of $0–49,999 (OR 1.00), respondents who have been seeing their GP for 1–5 years (OR 3.13; CI 1.23–7.96), respondents who trust religious organisations (OR 2.14; CI 1.15–3.99), the legal system (OR 2.99; CI 1.48–6.02), and the United Nations (OR 2.56; CI 1.30–5.08) are the most likely to trust doctors in general (Table 60).

Table 60: Multivariate odds ratios of factors associated with trust in doctors in general after controlling for trust in all organisations/institutions and demographic variables

		p	OR (CI)
Length of time with current GP	< 1 year		1.00
	1–5 years	**.02**	3.13 (1.23–7.96)
	6–10 years	.07	2.55 (0.92–7.07)
	> 10 years	.24	1.65 (0.72–3.80)
Income	$0–49,999		1.00
	$50,000–104,999	.64	0.83 (0.38–1.81)
	$105,000–150,000+	**.02**	0.42 (0.20–0.89)
Trusts religious organisations	No		1.00
	Yes	**.02**	2.14 (1.15–3.99)
Trusts the legal system	No		1.00
	Yes	**.002**	2.99 (1.48–6.02)
Trusts the United Nations	No		
	Yes	**.007**	2.56 (1.30–5.08)

Model stable (Hosmer and Lemeshow 2000). Chi square 7.36, p = 0.50

29. *Investigating the association between the dependent variable of trusts a doctor the respondent is seeing for the first time, and the independent variables IRSD, chronic health, overall health, sex, age, length of time with current GP, income, trusts religious organisations, trusts the press, trusts the legal system, trusts the media, trusts the national government, trusts the United Nations, and trusts banks.*

Results indicate that respondents who trust religious organisations (OR 2.24; CI 1.36–3.67), trust the United Nations (OR 2.02; CI 1.22–3.35), and trust banks (OR 2.48; CI 1.40–4.39) are the most likely respondents to trust a doctor they are seeing for the first time (Table 61).

Table 61: Multivariate odds ratios of factors associated with trust in a doctor the respondent is seeing for the first time after controlling for trust in all groups and individuals and demographic variables

		p	OR (CI)
Trusts religious organisations	No		1.00
	Yes	**.001**	2.24 (1.36–3.67)
Trusts the United Nations	No		1.00
	Yes	**.007**	2.02 (1.22–3.35)
Trusts banks	No		1.00
	Yes	**.002**	2.48 (1.40–4.39)

Model stable (Hosmer and Lemeshow 2000). Chi square 0.78, p = 0.99

30. *Investigating the association between the dependent variable of trusts a doctor the respondent is seeing for the first time and the independent variables IRSD, chronic health, overall health, sex, age, length of time with current GP, income, trusts religious organisations, trusts the press, trusts the legal system, trusts the media, trusts the national government, trusts the United Nations, trusts banks, trusts police, trusts doctors in general, trusts people of another religion, trusts people of another nationality, trusts neighbours, trusts family, trusts their national political leader, trusts their local politician, and trusts people the respondents meets for the first time.*

Results indicate a statistically significant association between trust in a doctor the respondent is seeing for the first time and trust in other groups or individuals. Respondents who trust people they meet for the first time (OR 8.83; CI 4.66–16.34) and respondents who trust doctors in general (OR 43.51; CI 20.77–91.15) are significantly more likely to trust a doctor they are seeing for the first time (Table 62).

Table 62: Multivariate odds ratios of factors associated with trust in a doctor the respondent is seeing for the first time after controlling for trust in all groups or individuals, all organisations/institutions and demographic variables

		p	OR (CI)
Trusts people they meet for the first time	No		1.00
	Yes	**.000**	8.73 (4.66–16.34)
Trust doctors in general	No		1.00
	Yes	**.000**	43.51 (20.77–91.15)

Model stable (Hosmer and Lemeshow 2000). Chi square 0.21, p = 0.65

31. *Investigating the association between the dependent variable of trusts doctors in general and the independent variables IRSD, chronic health, overall health, sex, age, length of time with current GP, income, trusts religious organisations, trusts the press, trusts the legal system, trusts the media, trusts the national*

government, trusts the United Nations, trusts banks, trusts police, trusts doctors the respondent is seeing for the first time, trusts people of another religion, trusts people of another nationality, trusts neighbours, trusts family, trusts their national political leader, trusts their local politician, and trusts people the respondents meets for the first time.

Results indicate that there is a statistically significant association between trust in doctors in general and trust in other groups or individuals. Respondents who trust their local politician (OR 3.24; CI 1.42–7.38), trust police officers (OR 3.93; CI 1.90–8.11), and trust doctors they see for the first time (OR 42.40; CI 18.82–95.54) are significantly most likely to trust doctors in general. Results also suggest that, contrary to findings about trust in a doctor the respondent is seeing for the first time, people who trust doctors in general are significantly less likely to trust people they meet for the first time (OR 0.41; CI 0.18–0.94) (Table 63).

Table 63: Multivariate odds ratios of factors associated with trust in doctors in general after controlling for trust in all groups of individuals, all organisations/institutions and demographic variables

		p	OR (CI)
Trusts people they meet the first time	No		1.00
	Yes	**.04**	0.41 (0.18–0.94)
Trusts their local politician	No		1.00
	Yes	**.005**	3.24 (1.42–7.38)
Trusts police officers	No		1.00
	Yes	**.000**	3.93 (1.90–8.11)
Trusts doctors they see for the first time	No		1.00
	Yes	**.000**	42.40 (18.82–95.54)

Model stable (Hosmer and Lemeshow 2000). Chi square 3.49, p = 0.48

6.3 Summary of the quantitative results

The quantitative data provided a means of achieving objectives 2–4, and 7-8. The data have highlighted the social factors affecting patient trust and reflexivity (objectives 2, 3, 4). The results indicate that the social factors SES, age, income, presence of a chronic health condition, sex, length of time with GP, overall health, and IRSD quintile are all associated with trust in doctors, individuals and

organisations. However, the predominant social factors affecting trust and reflexivity across all findings are age and sex. Overall, the findings are consistent, suggesting that older people are most likely to trust individuals, institutions and doctors. Older people are also significantly more likely than younger people to trust doctors. Wealthy young females with chronic health conditions were found to be the least trusting respondents.

The findings about trust are consistent with findings about reflexivity in participant trust. Older people are less reflexive with regard to trust in individuals, institutions and doctors. Younger females are more reflexive with regard to trust.

Objective 7 was to examine the extent of interpersonal and institutional trust in Australia. Overall, the findings suggest that Australians are very trusting both of individuals and institutions, with 79.5% of respondents saying that in general, most people can be trusted. Although trust is high in all areas, trust in doctors was found to be very high. For example, 98.1% of respondents trust their regular doctor. While trust in doctors is high, findings suggest that respondents consider that the characteristics of doctors that generate trustworthiness are the appearance of being caring and competent.

Objective 8 was to investigate how trust is operationalised. The findings suggest that people who trust individuals or institutions are also much more likely than other respondents to trust doctors in general and a doctor they are seeing for the first time. This finding was also beneficial in developing a model of Giddens' and Luhmann's theories of trust (objective 9).

This thesis now moves on to Chapter Seven which provides a discussion of the qualitative and quantitative results in relation to applied and theoretical trust literature.

Chapter 7: DISCUSSION

The following chapter is presented in three parts. The first section provides a brief overview of the research process. The second section introduces the discussion by addressing how the objectives outlined in the literature review were met. The third section is a discussion of the qualitative and quantitative results. It begins by outlining how this research has addressed the objectives of this thesis that were detailed in the literature review. The section then moves on to unpack the findings in relation to theoretical development. Relevant links are provided to applied and theoretical trust literature.

The goal of the qualitative and quantitative data collection was theoretical development, thus the data from both methods are discussed together. Given the nature of each of the two methods, separate aspects of the theoretical model were investigated using the different techniques. The following discussion will include only relevant findings from the qualitative, the quantitative, or both, depending on the component of the theory being discussed.

7.0 Discussing the research process

Prior to discussing the findings of this thesis, it is important to acknowledge and discuss the ways in which the process of this research has affected the data collection and interpretation. In addition, this section will outline the limitations and strengths of this thesis.

7.01 The reflexive sociologist

As researchers, sociologists must be reflexive and consequently aware of the effects of their position and prejudices. My role as the researcher has shaped my interpretation of the design of this thesis. Additionally, my role affected the ways in which the subjects conveyed and communicated their information (Bourdieu 1990). As such, my role has influenced the data collection and interpretation of the results presented in this thesis. As a 25 year old female collecting data, it must be acknowledged that my demographic characteristics influenced the way in which participants communicated with me. Outlined below is an overview of my interview process and experience.

The nature of this research necessitated the discussion of medical information. Initially I was concerned that participants may have been unwilling to share personal medical experiences. This did not prove to be the case. At the beginning of interviews some participants were hesitant to share information. However, the more we talked, the more comfortable they appeared to become. I was surprised to have men share with me personal information regarding the side effects of their heart disease including information regarding intimacy with partners. As the interviews went on, participants began to see me as a researcher but also as a person who listened to them. The people I found to be the most disclosing were often older respondents who treated our interview as a social gathering. For example, I spent four hours with one participant eating a picnic lunch in the park.

A second reason why I feel that participants were so open with me was because many of them initially thought I was a medical doctor. Although the information packages identified me as a student, many of them did not realise at first I was a researcher. The content covered in interviews dealt a lot with patient–doctor relationships which may be why participants initially assumed I was a medical doctor. This was a finding in itself because the indication it gave was that they were willing to share their medical histories with me because of the profession they perceived me to be part of.

I was surprised at the amount of personal information I received and I feel that another reason for this was that I spent a lot of time building rapport with the participants. As indicated previously, many of the participants saw our interview as a social meeting. I went to their homes where we had tea, talked about grandkids, friends, family, and many other things. We also discussed my life and I shared with them why I moved from Canada to study in Australia and other aspects of my personal life. For many participants a friendship was developed upon the initial visit or over the phone when I got lost on my way to see them. For two participants, a friendship was developed and extended to a few emails following the interview.

As outlined in the methodology, this research is interpretive and my role as the researcher is to give meaning to the findings. The chosen epistemology of this research, constructivism, argues that meaning is constructed by humans as they engage with the world they are interpreting – meaning is not discovered but constructed (Crotty 1998). A reflexive sociologist is one who conducts research with conscious attention to the effect of their own position. I acknowledge that the

dynamic way in which I interacted with the research participants, and the way in which I interpreted the data, is a reflection of myself as the researcher (Bourdieu 1990).

7.02 Limitations

Difficulty collecting a divergent sample

Given that many participants did see the interview as a social visit, I must acknowledge that it is possible that my participant group are not necessarily the most diverse group or most representative sample of people with CHD. Most of the participants did not do paid work, they were retired or on leave because of their heart condition. In addition, the majority of higher risk CHD participants were recruited through cardiac rehabilitation programs. These rehabilitation programs are offered to most people who end up in the cardiology ward of a hospital. However, only a small proportion of people asked to attend cardiac rehabilitation actually attend. These are often people who are retired or on disability leave from work. In addition, the nature of CHD itself played a part in this research. In addition to lifestyle factors, increased age and being male increase the risks of heart disease (Dunn 2009; National Heart Foundation of Australia 2009). As a result, the majority of higher risk participants were older males.

As a result of the dynamics of this group, it is likely that this participant group is not formed from the most distrustful people. The participants were often looking for interaction. It is also evident that they are trusting people as they allowed me, a stranger, to come into their homes and talk to them about their health. This may be one explanation for why the results of this thesis indicate that trust is not declining. The quantitative results also show high levels of trust in doctors despite the survey being randomly distributed. However, this too may be the case of bias on the basis of the argument that only certain people are likely to respond to survey research. The demographics of non-respondents were not analysed although it is acknowledged that these data are valuable.

Despite these potential biases, I did aim for diversity with regard to demographics. I did actively seek out higher and lower SES participants, people of different ages, males, females, and people with higher and lower CHD risk. Throughout the sampling process, I identified types of participant I needed to interview before carrying out additional recruitment. Sampling continued until saturation of data. In

addition, the quantitative data collection employed stratified sampling. As noted in the methods section, this was necessary in order to divide the national population into strata (Alreck and Settle 2004). Since this study was sampling a national sample, the data were stratified on the basis of states and territories.

In addition to the above limitation, this thesis has a number of strengths.

7.03 Strengths

Innovative areas of investigation

The data from this thesis have been used to model social theories of trust, which has not been done previously. In addition, the model presents a means for operationalisation in future research. No other research has investigated how trust has been operationalised; the relationships between interpersonal and institutional trust. The theoretical (re)development in this thesis is innovative and thus is of value both to applied research on doctor–patient trust and future theoretical investigation.

The strengths of this thesis are also apparent in the noted semantic distinction between trust and dependence. The findings regarding this dichotomy provide an initial conceptualisation of dependence that has not been noted in previous sociological literature on doctor–patient interactions. In addition, the findings from this thesis provide a platform from which future research into patient dependence may be launched.

This thesis also identified the usefulness of abductive and retroductive logic in research. Using the methodological tools of critical realism proved to be a functional means of analysing data in terms of theoretical development. The use of abductive logic highlighted aspects of social theories of trust that were not identified by Giddens and Luhmann (e.g. sex). Retroductive logic was used to interpret the underlying social realities and structures shaping the results. For example, retroductive logic was used to interpret how the asymmetrical power relationships between patient and doctor affect trust.

A final strength of this thesis is that it employed methodological pluralism. As noted earlier, Sale, Lohfeld et al. (2002) suggest that mixed methods research has been adopted uncritically by a new generation of researchers. As a member of this new generation, I found that using both qualitative and quantitative methods was

beneficial in theoretical development. Each method was beneficial in achieving different objectives of the research; the nature and extent of trust. Perhaps most important was that together, both methods provided a means of reaching the overarching aim of this research, theoretical development.

The above section has identified the strengths and limitations of this thesis. This chapter now moves to a discussion of the findings.

7.1 Introduction to the discussion

The following sections (7.1–7.9) address the lines of inquiry outlined by the critiques and apparent gaps identified in the literature review. The following headings are used as a means of outlining the discussion: the extent of trust in Australia; lay conceptualisations of trust; the role of power in patient trust and/or dependence; challenging the medicalisation argument; declining trust in healthcare and health professionals; trustworthy characteristics; the operationalisation of trust.

Before moving on to a detailed discussion of the findings, an overview of the thesis objectives and how they have been addressed is provided below. In addition, a new model of trust is presented. This model is based on the empirical findings and is an essential component of the remainder of the chapter.

OBJECTIVE 1: To critique current social theories of trust

A systematic critical review of the literature was undertaken as a means of providing the theoretical frame of this thesis. This critique was published in Health Sociology Review (2008) and subsequent publications have further developed and applied this theoretical frame. Please see the list of publications available on the attached compact disc.

OBJECTIVE 2: To explore the importance of socio-economic status and level of CHD risk as factors in patient trust.

Socio-economic status was found to affect participants' trust and reflexivity. Higher SES participants were more reflexive with regard to interpersonal trust and compliance than lower risk participants. Higher SES participants were also more likely to play an active role in their dietary decisions while many of the lower SES participants 'just followed' the dietary advice of healthcare professionals.

The level of CHD risk affected both patient compliance and dependence. Higher risk participants discussed times when they were dependent on the system; that they had no choice but to trust because they were dependent on healthcare professionals for treatment. Lower risk participants did identify a level of dependence on the medical system and healthcare professions for access to treatment and medications. However, the lower risk participants differed in the fact that they have been able to choose the doctors they see.

Participants who perceived the risks of their CHD to be high were found to be more compliant with dietary recommendations. However, as time passed, the level of perceived risk appeared to decline and consequently, so did participant's level of compliance.

OBJECTIVE 3: To explore and explain the role of social factors (including experience, sex, age) affecting trust in doctors

The quantitative results indicate that the social factors of age, income, presence of a chronic health condition, sex, length of time with GP, overall health, and IRSD quintile are all associated with respondent's trust in doctors, individuals and organisations. However, the prominent social factors affecting trust and reflexivity across all findings are age and sex. Overall the findings are consistent, suggesting that older people are most likely to trust individuals, institutions, and doctors. Older people were found to be significantly more likely than younger people to trust doctors. Wealthy young females with chronic health conditions were found to be the least trusting respondents. The findings regarding age and trust in doctors are consistent with findings from the qualitative interviews. Older interview participants are very trusting of healthcare professionals because they grew up trusting doctors.

The qualitative interviews investigated the role of experience in patient trust. The results suggest that negative experiences related to healthcare do not affect patient trust.

OBJECTIVE 4: To explore and explain the social factors affecting reflexivity in (dis)trusting

The quantitative results indicate an association between reflexivity and the social factors SES, age, sex, health status, income, and IRSD quintile. Overall, the

quantitative findings suggest that younger females with poor health/chronic health conditions are the most reflexive with regard to trust/doubt in doctors, organisations and institutions. Older participants are the least reflexive with regard to trust and doubt in individuals, organisations and doctors. The quantitative findings are consistent with the qualitative results which suggest that older participants from lower SES areas are less likely to be reflexive with regard to trust in their doctors.

OBJECTIVE 5: To investigate how lay individuals conceptualise trust

Findings suggest that participants do not distinguish between interpersonal and institutional trust. Many participants discussed their trust in the healthcare system or in specific clinics when asked about their interpersonal trust in doctors. Unanticipated results also came out of the data. When discussing the concept of trust, the notions of power and dependence arose. These findings helped to identify how individuals conceptualise trust. The findings suggest that the inconsistencies in applied literature (Calnan and Sanford 2004; Hall 2005; Evetts 2006; Kuhlmann 2006; Dew, Morgan et al. 2007) regarding the decline in trust in healthcare may be the result of the blurring of lay conceptualisations of trust.

OBJECTIVE 6: To explore the nature of trust and the extent to which trust impacts on patient compliance with dietary recommendations

The findings do not identify a direct link between trust and compliance. While patients trusted their healthcare professionals, not all of them were compliant with the dietary recommendations they received. However, participants' perceived risk associated with their CHD did influence the level of compliance. The notion of time was also apparent in participants' compliance. As time passed, their perceived level of risk appeared to decline and consequently so did their compliance.

OBJECTIVE 7: To examine the extent of interpersonal and institutional trust in Australia through a national survey

Overall, the findings suggest that Australians are very trusting both of individuals and institutions. Overall, 79.5% of respondents said that in general, most people can be trusted. Although trust is high in all areas, trust in doctors was found to be very high. For example, 98.1% of respondents trust their regular doctor. While trust is high in doctors, findings suggest that respondents consider that characteristics of trustworthiness include doctors appearing to be both caring and competent.

OBJECTIVE 8: To investigate how trust is operationalised

Findings from the qualitative interviews suggest an association between interpersonal trust in one individual (for example, a GP) and interpersonal trust in a secondary individual (for example, a specialist). These findings are consistent with quantitative results which suggest that respondents who trust doctors are significantly more likely to trust other groups of individuals. Qualitative findings also suggest that there is an association between trust in one institution and separate but mutually interacting institutions. However, contrary to Luhmann's argument, the findings do not suggest that trust in one institution (for example, the government) necessitates trust in a mutually interacting secondary institution (for example, the health system). In addition, there appears to be an association between trust in a healthcare institution and trust in its representatives.

OBJECTIVE 9: To understand and model the theories of Giddens and Luhmann based on empirical findings

Overall, the findings suggest that risk, age, SES, sex, and income are social factors associated with trust in individuals and institutions, as is familiarity. In addition, the findings suggest there is an association between and within interpersonal and institutional trust. As part of addressing objective 9, outlined below (Figure 4) is a model depicting a new social theory of trust that was developed from empirical results; one that has practical implications for applied research into doctor–patient trust. Combining Giddens' and Luhmann's social theories and addressing the suggested gaps in the practical application of their theories has been useful for addressing the operationalisation of trust. Three key ideas have been addressed in the new model regarding the operationalisation of trust. Firstly, the model addresses the multidimensionality in the operationalisation of (dis)trust both at a systems level and an interpersonal level. Rather than trust being initiated at a systems level (Luhmann) or interpersonal level (Giddens), the model suggests that trust may originate at either level. Secondly, rather than conceptualising trust as linear, the model also addresses the multidirectional trusting relationships that exist between and within social systems. For example, the healthcare system was found to be associated with the education system, the government and regulatory systems. Thirdly, the model takes into account factors that have been found to predict trust; namely, risk, familiarity, doctors' characteristics, time, and social factors (SES, age, sex, income).

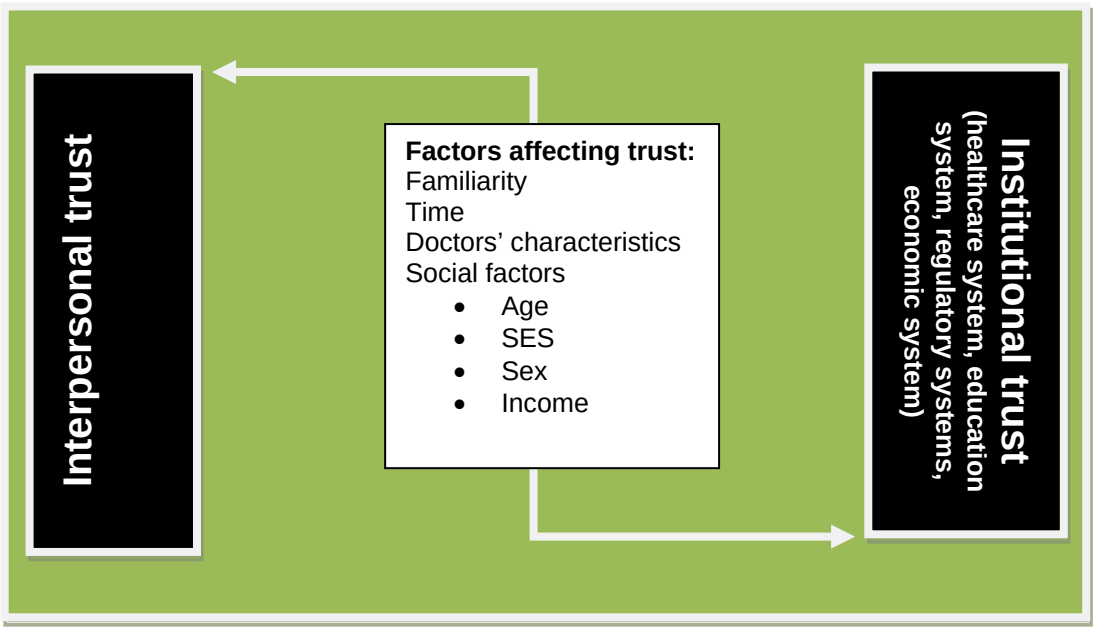

Figure 4: Redeveloping the social theory of trust based on empirical results

Addressing the operationalisation of trust also proved beneficial for investigating the usefulness of the methodological toolkit employed in this thesis. As noted earlier, both abduction and retroduction were employed in the analysis of data. It was suggested that, fundamentally, abduction differs from induction and deduction in that abduction builds on creativity and imagination as a means of forming associations that enable the researcher to discern relations and connections that are not evident or obvious. While doing the research for this thesis, many of the findings fitted the mould of social theories of trust. The findings did, or did not, prove to be trust based on Giddens' and Luhmann's conceptualisations of trust. However, taking the analysis a step further and making abductive inferences reveals a differential conceptualisation of trust.

Abduction also proved beneficial for identifying the concept of dependence. For example, some of the participants indicated that they trust doctors but their responses may be interpreted as dependence. As a result, the findings of this research have also led to development of a preliminary model regarding patient dependence (Figure 5). As noted in the methodology, in social science, (re)interpretation often leads to the formation of a new conceptual framework (Danermark, Ekstrom et al. 1997). This was the case in the findings from this research. In researching trust, the concept of dependence was identified. The findings suggest that power and perceived risk play an influential role in patient

dependence. It has been suggested that perceived risk associated with illness may play a role in the importance of trusting relationships (Mechanic 1998a; Mechanic and Meyer 2000). Within this study, perceived risk appears to play a central role in differentiating between trust and dependence. While risk remains a part of trusting relationships, the level of risk involved is the determining factor for participant trust versus dependence. When risks are perceived to be very high, participants no longer trust, they depend. Although the theory of dependence is in need of further investigation, it remains useful as an initial framework for applied research.

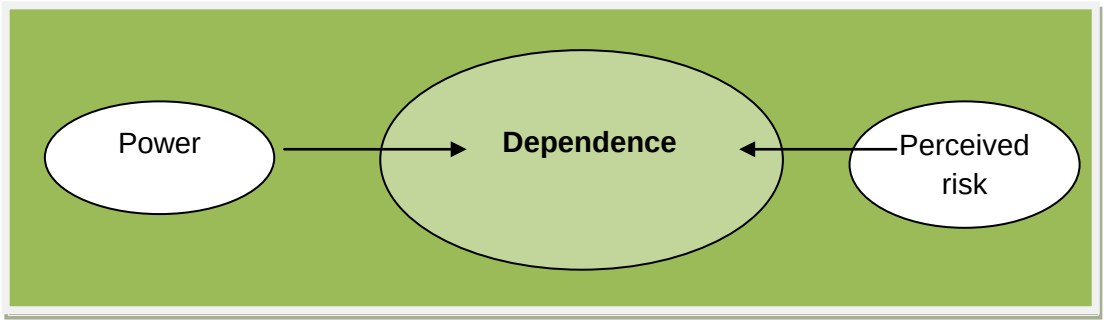

Figure 5: A model of dependence

7.2 The extent of trust in Australia

As noted above, empirical literature suggests that trust in healthcare is declining. This decline has been theorised to be the result of increased individual and societal reflexivity. Late modernity (Bauman 1987; Giddens 1990; Beck 1992; Beck, Giddens et al. 1994; Beck 1999) has enabled people to become aware of, and act upon risk/trust (Beck, Giddens et al. 1994). As some modern patients become more reflexive and more aware of the risks involved in trusting, they have become more critical of 'expert' advice and consequently, patient trust in healthcare is reported to be declining (Birungi 1998; Davies and Rundall 2000; Mechanic and Meyer 2000; Gilson 2003; Russell 2005). However, the results from qualitative and quantitative data presented in this thesis indicate that Australians are very trusting of both healthcare professionals and the healthcare system. Although this thesis focuses centrally on the nature and extent of respondents trust in healthcare professionals, an additional objective was to investigate the extent to which Australians trust other groups of individuals and organisations/institutions. If individuals are becoming more reflexive with regards to trust, it was important

to determine if high levels of trust in healthcare was consistent with findings regarding trust in other groups of individuals and organisations. As a means of investigating this topic, the quantitative component of this thesis asked respondents to indicate their level of trust in groups of individuals and organisations.

7.21 Australians' trust in groups of individuals

Australians are very trusting of groups of individuals. While it was found that trust in the respondent's regular doctor is higher than respondent trust in any of the other groups of individuals, trust in other groups is also high. Trust in family and in neighbours is very high which suggests that familiarity may play a role in trust. However, the findings also indicate that the majority of Australians trust people they meet for the first time. This is supported by the findings regarding generalised trust whereby 79.5% of respondents said that most people can be trusted. This was further substantiated by findings which indicate that 72.7% of respondents do not feel that people would take advantage of them if given a chance. In addition, when analysing the data for overall trust in the 11 groups of individuals, the findings indicated high levels of trust across all groups of individuals.

High levels of respondent trust were also found in other individual groups. The majority of Australians trust people of another religion (70.8%), people of another nationality (88.8%) and police officers (86.4%). In contrast, levels of trust were found to be the low in politicians including both the national political leader (42.1%) and local politicians (47.3%). The findings regarding trust in politicians coincides with the qualitative findings as the interview participants also indicated low levels of trust in politicians, 'I would not entirely trust a politician…but I would trust a nurse and a doctor – maybe even a police officer (Paul).'

Age was found to be the biggest predictor of trust in individuals. Respondents aged 55-74 were 7.08 times more likely to trust groups of individuals than respondents aged 18-34. These findings may be explained by the results of data regarding reflexivity in trusting individuals. Young participants are the most likely to doubt information from groups of individuals while older individuals are more likely to say they trust individuals. Older respondents are less reflexive in their decision to trust individuals which may be why they are more likely to trust, and less likely to doubt

individuals. It may be that they are blindly trusting or that they have generalised or habitual trust which may be theoretically interpreted something other than trust. The fact that older individuals may not be reflexively making the decision to trust may indicate that they are confident and/or they have faith in other individuals but not necessarily that they trust individuals (Luhmann 1979; Luhmann 1988).

7.22 Australians' trust in organisations/institutions

The data were analysed to determine Australians' overall trust in organisations/institutions. While overall trust was found to be high in groups of individuals, the overall level of trust in organisations/institutions was found to be significantly lower. These findings regarding low levels of trust were consistent across each of the individually listed organisations.

While respondents trusted people of another religion, trust in religious organisations was found to be lower with roughly 55% indicating they trust religious organisations somewhat. These findings were similar to respondents' low trust in banks as only 42.3% of individuals indicated that they trust banks somewhat.

Consistent with findings regarding trust in politicians, trust in government is low with the majority of respondents indicating they do not trust the government (>50%). Trust is also low in the press and the media. Trust in these two organisations was found to be significantly lower than trust in any other organisation/institution. The majority of respondents (>70%) do not trust the media or the press. Trust is also low in the legal system with roughly half of respondents indicating that they do not trust the system.

The findings regarding Australians' lower levels of trust in organisations than individuals may be explained by the fact that respondents are not familiar with all of the listed organisations and therefore, they are unsure of whether they trust them. Hardin (1998:16) suggests that individuals can and do trust specific institutions but in the absence of history or experience (familiarity) with the given system, individuals cannot say 'confidentially one way or the other whether they [institutions] are trustworthy' (Hardin 1998). The findings may be in part a reflection of the fact that the respondents were not familiar with all of the listed organisations. The finding that people only trust the government somewhat coincides with Hardin's (1998)

argument. He suggests that for a government to work properly, all that is required is that citizens do not actively distrust the government.

Trust in institutions although low, is also stratified across the population. Health status, income, length of time with current GP and sex are associated with trust in institutions. Quantitative findings indicate that wealthy females without a chronic illness are the most likely to trust organisations. These findings are consistent with earlier literature which suggested that among others, gender is relevant to trust (Taylor-Gooby 2006c).

Australians are reflexive with regards to trust in organisations/institutions which may account for the lower levels of trust in organisations. The findings suggest that health status and income are associated with reflexivity. Wealthy respondents with a chronic health condition but who have very good health are the most likely to doubt information from organisations. This is consistent with findings regarding reflexivity and trust in individuals which suggested that more affluent, younger respondents with a chronic health condition are the most reflexive. However, regarding trust in medical advice and trust in individuals, females were found to be more reflexive than males. The findings noted above regarding females' institutional trust may be reflective of females' lack of reflexivity with regards to trust in organisations. While females are very reflexive with regards to trust and doubt in individuals and doctors, they may be less reflexive with regards to trust in organisations.

While the new model of trust presented in Figure 4 (Section 7.1) is specifically related to trust in healthcare, these findings suggest that the model may prove useful for trust research in other areas. This chapter now moves on to a discussion regarding lay conceptualisations of trust.

7.3 Lay conceptualisations of trust

As noted in the literature review, Giddens' and Luhmann's explanations of the driving force(s) behind why people trust in situations of uncertainty remain difficult to operationalise. Giddens says that trust rests on a vague and partial understanding of the matter in question, for example medical advice (Giddens 1990). Luhmann suggests that trust relies on some form of illusion (or 'operation of will') necessary to overcome a shortfall of information. As a result of this gap, the theoretical model

supporting the research design of this thesis included personal experience as a variable with the goal of investigating the nature of trust.

Several of the interview participants (George, Cindy, Jill, and Fennel) suggested that they have had negative experiences with healthcare professionals including alleged misdiagnoses and oversights regarding diagnoses. However, despite these alleged errors, George, Cindy, and Fennel said that they still trust the doctors that made the mistakes. This suggests that negative experience may not be the only determinant of distrust. However, upon further analysis it is evident that these participants do not necessarily trust the healthcare professionals, if we use Luhmann's and Giddens' conceptualisations of trust. George, for instance, states that he still trusts the cardiologist who did not call him back for follow-up appointments regarding his heart murmur. This eventually led to George having a heart infection and subsequent bypass surgery. However, although he suggested he trusts the cardiologist, his trust stems from the fact that he feels it was the fault of the hospital system that he was not contacted, not the cardiologist specifically. George does not distinguish between interpersonal and institutional trust. Trust and its meaning varies among individuals (Hupcey and Miller 2006). These findings suggest that the way in which lay individuals conceptualise trust makes it difficult to determine whether trust is in fact influenced by personal experience.

The ways in which Cindy and Fennel conceptualise trust also make it difficult to determine whether healthcare experiences do in fact influence trust in healthcare and healthcare professionals. Both participants had alleged negative experiences with healthcare professionals resulting in poor health outcomes; heart surgery for Cindy and trauma for Fennel who was rushed to hospital after being dismissed by her GP. Both participants say that they still trust their doctors. However, upon analysis, it is evident that Cindy was dependent on the GP who did not realise she was having a heart attack. She was dependent on him for medical advice because he was the only doctor who works on Sunday. Similarly, Fennel said that she still trusts her doctor who made an alleged error, but following her comment she also said 'look, I don't know'. Fennel's response indicates doubt. It has been noted in applied literature that generalised trust can coexist with high levels of scepticism (Taylor-Gooby 2006a). It is evident in their responses that the way in which these participants conceptualise trust differs from an academic conceptualisation because what they have identified as trust indicates dependency. Current theory suggests that trust is a reflexive 'choice' that involves agency, not dependence. It may be that

these participants are dependent or it may be that participants conceptualise trust differently to academics and the lay conceptualisation of trust may not always involve agency.

Although Cindy's response indicates that she is dependent, the response about her trust in the doctor before the incident is consistent with Luhmann's conceptualisation of trust. Cindy indicated that she was partially to blame for the medical error that she experienced. She feels that it is partially her fault because she should have taken more responsibility and insisted that the doctor do the echocardiogram. As noted earlier, Luhmann makes a semantic distinction between trust and confidence. He argues that if we choose one action in preference to another, despite the possibility of being disappointed, we are trusting. However, because the decision to trust is a choice we make, any disappointment is attributed internally (Luhmann 1988). Findings from Cindy's interview support Luhmann's argument. Cindy said that she feels partially responsible for the medical error. It may be that Cindy attributes some of the blame internally because she chose to trust the doctor who made the error. This finding is consistent with applied research which suggests that many influences leading to loss of heath are beyond the control of doctors (lifestyle, environment). This has led to the expectation that patients will accept some responsibility for their own health (Cruess 2006). With the growth of medical information in the media and health promotion campaigns there may be a shift in the role of the patient who is increasingly responsible for personally modifiable aspects of health (smoking, drinking, dietary behaviour).

As noted in the literature review, Knight, Holdsworth et al. (2007:795) state that 'trust is a concept that is generally understood by the public, yet academics in several disciplines have devoted much effort to defining it' (Knight, Holdsworth et al. 2007). The argument was made that the lay public may differentially conceptualise trust. The way in which academics construct trust differs from lay individuals constructions. As noted earlier, it has been suggested that lay people equate the terms trust, faith, and confidence, for example (Kent 1998). The findings suggest that despite the efforts that academics have devoted to conceptualising trust, the lay public do indeed conceptualise it differently. This is supported by Hupcey and Miller (2006) who found that the way participants described interpersonal trust is very different to the ways in which healthcare providers describe trust.

Two major themes were evident in the qualitative data which suggest that academics conceptualise trust differently from lay individuals. The following discusses the qualitative findings in relation to these two major themes: (1) Lay individuals do not always distinguish between the concepts of interpersonal and institutional trust; and (2) Although participants often suggested that they trust in the health system or healthcare professionals, their responses indicate dependence.

7.31 Distinction between interpersonal and institutional trust

An additional gap presented within the literature review related to the inconsistencies within trust literature regarding the decline in trust. The argument is that the inconsistency may be the result of a blurring of the lay conceptualisations of interpersonal and institutional trust.

Lay individuals do not always distinguish between the concepts of interpersonal and institutional trust. Findings from trust literature concerned with healthcare are conflicting, in that some academics argue trust in the healthcare system is declining while trust in medical professionals remains strong (Calnan and Sanford 2004; Hall 2005; Dew, Morgan et al. 2007) while other applied literature suggests the contrary (Evetts 2006; Kuhlmann 2006); that there has been a shift from trust in professionals to confidence in a system (Brownlie and Howson 2005a).

Consistent with the argument made in the literature review, the findings suggest that lay individuals conceptualise interpersonal and institutional trust differently, which may account for the inconsistencies in current trust literature. Several of the participants from each of the four groups discussed institutional trust when they were asked about interpersonal trust in specific healthcare professionals. When asked about trust in their GPs, many participant responses suggested that they trust their GPs because of their qualifications. This suggests that the participants have institutional trust in the body of knowledge behind the GPs' medical degree, the education system or subsequent qualifications received after completing medical school. This finding is consistent with Kuhlmann's (2006) argument that GPs compete for trust in their knowledge and information systems; that trust in the professional lies in their individual qualifications. This finding is also consistent with Giddens' (1990:85) argument that 'the real repository of trust is in the abstract system.' While individuals say they trust specific healthcare professionals, their trust lies in the systems that are behind the professionals. As a result, if the systems

behind the medical professionals (government, healthcare system, education system) are not seen as trustworthy, patients may as a result, distrust health interventions and/or healthcare professionals (Brownlie and Howson 2005a). This may be problematic for health promotion and prevention strategies such as providing dietary guidelines.

The findings suggest that there is a blurring of the lay conceptualisations of interpersonal and institutional trust. However, as noted in the literature review, the question also remains as to whether interpersonal trust can be viewed as one dimensional; whether interpersonal trust in a patient's regular GP is the same as interpersonal trust in a doctor they have never seen before. A study by Keating, Gandi et al. (2004) found that 79% of their participants had trust and confidence in specialists. However, trust and confidence are conceptualised differently in the theoretical literature. Luhmann argued that trust only occurs in situations of familiarity (Luhmann 1979). This thesis also investigated familiarity as a role in interpersonal trust. Familiarity was investigated by discussing participants' trust in doctors they have never seen before. The findings outlined below suggest that familiarity does play a role in participant trust. In the absence of familiarity, findings indicate that participants are dependent, not trusting.

A prominent theme evident in participants' responses regarding the conceptualisation of trust is Luhmann's notion of familiarity. As noted earlier, Luhmann regarded both familiarity and trust as complementary ways of absorbing complexity (Luhmann 1988), and as being linked to one another, with trust presupposing familiarity (Luhmann 1979). Familiarity is based on experience that is represented in history. Many participants' responses indicated that familiarity played a role in their trust in their GPs. For example, Sam talked about his previous GP whom he 'learned to trust'. Luhmann says that the notion of time is central to the relationship between trust and familiarity. The length of time that Sam has been with his GP played a role in his familiarity, and consequently, his trust. Similarly, Lexi said that the trust in her GP 'definitely' had to do with the fact that she has been seeing her for a long time. Bob, on the other hand, talked about trust in unfamiliar situations. He suggested that in situations where he is not familiar he 'has to trust'. Bob's response suggests that he is dependent on healthcare providers when he is not familiar with them. Luhmann argues that familiarity, like trust, limits our options by narrowing down our choices based on past experiences. When we have had a good experience with a GP, it is easier to trust him or her, based on the assumption

that we have not been let down in the past. Consistent with Luhmann, Bob's response indicates that the lack of familiarity complicates his decision to trust. When Bob says that he *has* to trust, he indicates that he is not making a conscious decision or choice to trust, he is dependent. The finding regarding familiarity has been included in Figure 4 (Section 7.1), showing familiarity as a component of interpersonal trust.

This section now moves on to the concept of dependence that was evident in a number of participants' responses when discussing situations of emergency (or risk) or in unfamiliar situations.

7.32 Dependence

The majority of trust research focuses on trust as a problem, the decline in trust being the topic of interest. However, it is not often discussed that individuals depend on medical services regardless of whether trust in healthcare is declining (Pescosolido, Tuch et al. 2001). A theoretical finding apparent in data analysis is the distinction between trust and dependence. The argument in this section is that participants conceptualise trust differently to Luhmann and Giddens. The findings suggest that many of the participants do not distinguish between trust and dependence. This is consistent with Kent's (1998) argument regarding lay people equating terms such as trust, confidence, and faith. In his conceptualisation of trust, Luhmann makes semantic distinctions between trust and confidence, and trust and familiarity. He does not however make the semantic distinction between trust and dependence. This distinction has shown to be significant in researching trust in healthcare (Ward, Bissell et al. 2000; Meyer and Ward 2009b), especially given the nature of the doctor–patient relationship.

As noted in the methodology, the method of retroduction was employed in the interpretation of the data. The aim of this was to interpret the meanings of certain mechanisms including trust. This process proved beneficial in identifying the role of reflexivity in trust and dependence. Many participants indicated that they trusted doctors whom they saw in emergency departments. However, through the process of recontextualisation it became evident that participants were not reflexively trusting in the context of emergencies, but rather, they were dependent. In the context of a GP visit, findings suggested the opposite; some patients were reflexively choosing

to trust or distrust specific doctors. The process of retroduction was beneficial for highlighting the ways in which meaning can be viewed in different contexts.

Although participants often suggested that they trust in the health system or healthcare professionals, their responses indicate dependence. The higher risk participants said that they trust in situations of emergency, one might argue that rather than placing trust in medical professionals, the participants are instead dependent on them. While trust indicates choice, dependence indicates a lack thereof. This was evident in participant responses suggesting that they had no choice but to trust. This indicates they are dependent on professionals in times of increased risk. When a patient presents at the emergency room with a heart attack, there is a great deal of risk involved in the medical situation. It is in times like these that, regardless of whether they trust the medical professionals, they depend on them. This suggestion is consistent with Luhmann's argument that trust has to be achieved within a familiar world. Luhmann (1979, 1998) would argue that because the participants were not familiar with the medical professionals treating them in emergency situations, that they were not trusting in them, because interpersonal trust cannot exist in the absence of familiarity.

Trust is often seen as crucial for understanding perceptions of risk (Sjoberg 2001). As noted above, Luhmann suggests that an individual's decision to trust is based on both experience and the risks associated with the decision. The findings indicate that in situations of risk, patient compliance with treatment options or submission is not a matter of trust but rather dependence. A person who is dependent does not base their decision to put their life in the hands of a doctor on past experience, as they would in situations of trust. They base their decision on the immediate risk and urgent need for medical attention that only a medical professional can provide.

As is seen in Luhmann's distinctions between trust/confidence and trust/familiarity, making the distinction between trust and dependence adds to the knowledge of sociology because it delineates the semantically different concepts. In addition, this distinction has sociological ramifications regarding human agency. In the theoretical literature, trust is conceptualised as being a matter of choice. When individuals trust, they retain their agency because if the trust is broken, they attribute the blame internally. Conversely, when individuals place confidence, they give over their agency and blame is attributed externally. When we are dependent, we do not act (we are passive). A dependent individual has no agency because they do not

consciously decide to place trust or confidence. They passively accept decisions to be made for them (docile bodies) (Lupton 1997b).

Participant responses indicated that in times of high risk (when patients are faced with emergency medical situations) they have no choice but to trust – they have no agency. Indeed, Crawford (2004:521) argues: 'If significant risks are regarded as uncontrollable, an assessment of controllable risk factors provides little assurance.' Instead of weighing the risks involved with their medical decisions, patients just trust. The findings were consistent with Crawford's argument; for example, Philip's response indicated that he had no control over risk factors and that trust was the only option when he presented at the emergency department: 'I had to [trust], didn't I?' (Philip). Despite the suggestion that patients are increasingly self-reliant and reflexive with regard to healthcare, patients still become vulnerable when illness strikes (Anon 2006): 'Trust, thus, serves the patient's needs especially well during periods of greatest vulnerability' (Mechanic 1998b:662). It may be argued that in periods of heightened or extreme vulnerability, patients are dependent.

The concept of dependence has highlighted some inconsistencies in the ways in which lay individuals conceptualise trust. For both higher and lower risk participants, dependency appears to be based on the risks involved in their situation, the urgency for access to 'expert' medical information. A person who is dependent appears to base their decision to comply with medical professionals on the immediate risk and the urgent need for medical advice and treatment from an 'expert'.

These findings have been highlighted above in Figures 4 and 5. While risk has been identified as relevant to both trust and dependence, the level of risk is what differentiates the two. When the risks involved in trust are perceived to be very high, people become dependent. However, as Luhmann suggests, trust must exist in situations of risk. While risk remains an element of trust, this research suggests that there is a point where the risks become too substantial for individuals to trust; rather, people become dependent.

The findings also suggest that academics conceptualise trust differently than lay individuals. While participants may say that they trust, their responses at times indicate dependence (Meyer and Ward 2009b). These findings regarding patient dependence may be the result of the nature of the doctor–patient relationships. The findings can be explained using Luhmann's theorisations of power (Luhmann 1979).

In situations of risk, the power imbalance between doctors and patients becomes more clearly defined. Luhmann (1979:109) suggests that 'power involves causing outcomes despite possible resistance' which is evident in participants' responding that they do not have a choice. The findings presented above also support the critique of Giddens which suggests that his theory does not take into account the social factors and external influences that play a role in individuals' abilities to act as reflexive agents. By representing patients as reflexive consumers, he does not give recognition to the often unconscious, unarticulated dependence that patients may have on doctors (Lupton 1997a).

This chapter now moves on to discuss the role of power in patient agency.

7.4 The role of power in patient trust and/or dependence

The findings regarding patient dependence may also be explained using Foucault's discussion of the 'clinical gaze' and the notion of medicalisation (Foucault 1973). Foucault suggests that since the birth of the medical clinic, discourse and dialogue between doctors and patients has changed. This shift altered the patient–doctor relationship as the divide between 'lay' and 'expert' was cultivated. The lay–professional relationship remains asymmetrical and therefore, the patient falls dependent on the medical professional and the medical system in times when 'expert' information is needed. Starr (1982:144) suggests that the basis of the medical profession's status 'is its authority, which arises from lay deference and institutionalized forms of dependence.' Indeed, Foucault's suggestion of the asymmetrical relationship is evident in participants' discussions regarding their trust in times of risk. In situations of risk, the asymmetry is heightened and there is no choice but to trust. Similarly, Luhmann (1979:114) argued that power 'secures possible chains of effect independent of the will of the participant which is subjected to power – whether he so wishes or not – the causality of power lies in neutralizing the will, not necessarily in breaking the will of the interferer – this affects him also, and most precisely when he intended to do the same thing and then learns that he has to do it anyway'. Regardless of whether they would have trusted the medical professional in times of emergency, patients have no choice but to trust.

Despite increasing patient autonomy, access to information, and the recent shift in the imbalance between citizens and dominant professionals (Kraetschmer, Sharpe

et al. 2004; Thompson 2007), the patient–doctor relationship involves a level of vulnerability. This stems from the imbalance of knowledge and power and the inherent risk involved in medical decisions (Dugan, Trachtenberg et al. 2005). Indeed, there has been a shift in the doctor–patient relationship; the patient is seen as a consumer of healthcare as the result of the rise in managed care or citizenship (Britten 2001; Schnittker 2004). The consumerist approach tends to represent people as autonomous, self-reliant individuals. However, this does not acknowledge that in times of serious illness there are still emotional ties that bind people to each other in ways that they are often not fully aware, and these are times when people need to allow themselves to be dependent upon others (Lupton 1996). Dugan, Trachtenberg et al. (2005), argue that without vulnerability, there is no need for trust. Patients' trust involves vulnerability and a resulting reliance on, and confidence in, their doctor. This indicates that despite increased agency in a proportion of the population regarding their medical care, the medical profession still holds power in situations of vulnerability. Seligman (1998:393) writes:

> *Trust is needed when there is no basis for confidence, for example, when behavior cannot be predicted or when strangers are part of the interaction. Trust is necessary when the other is unknowable, when behavior cannot be imputed or predicted, because either a) there is no system within which sanctions can be imposed or b) there is no underlying sense of or terms of familiarity or sameness that would allow such prediction (Seligman 1998).*

Seligman's (1998) quote, contrary to Luhmann's writings, suggests that trust exists in the absence of familiarity. Nonetheless, both authors acknowledge that power is a component of trust (Luhmann 1979). Power is inherent in doctor–patient relationships because of patient reliance on medical practitioners for expert information and treatment. The extent to which reliance or need is a component of trust is in need of investigation. Hupcey, Penrod et al. (2001:290) write:

> *Trust emerges from the identification of a need that cannot be met without the assistance of another and some assessment of the risk involved in relying on the other to meet this need. Trust is a willing dependency on another's actions, but it is limited to the area of need and is subject to overt and covert testing. The outcome of trust is an evaluation of the congruence between expectations of the trusted person and actions (Hupcey, Penrod et al. 2001).*

Hupcey, Penrod et al. (2001) identify dependence as a component of trust as does other applied trust literature (Lupton 1996; Lupton 1997a; Ward, Bissell et al. 2000;

Meyer and Ward 2009b). With regard to trust in healthcare, Lupton (1997a) argues that dependency is a feature of an individual's illness experience; lay people lack the specialised knowledge that medical professionals possess which leads to dependence in medical encounters. Similarly, Ward, Bissell et al. (2000) found that consumer's dependence on medication appeared to be more powerful than their fear of the risks involved in taking prescription medications (Ward, Bissell et al. 2000). These two studies suggest a level of dependency on medication and the medical system. However, similar to Luhmann, they acknowledge that dependency exists in relationships but they do not provide a semantic distinction between trust and dependence. What remained unresolved when designing this research is the extent to which individuals are trusting in situations of power, dependence, and vulnerability. For example, Lupton (1996) argues that trust relationships in the doctor–patient relationship are characterised by ambivalence, uncertainty, and risk because the relationship characteristically involves a high level of vulnerability and dependency. The findings from this thesis suggest that when there is such a high level of risk and vulnerability, in situations of medical emergency, trust no longer plays a role in the doctor–patient relationship. Their relationship becomes one of dependence, not trust. Using Luhmann's conceptualisation of trust, the findings suggest dependence rather than trust because trust indicates 'choice' (agency) whereas dependence indicates 'no choice' (no agency).

Outlined above is the argument that despite the apparent increase in reflexivity in lay individuals, people are still dependent on medical professionals at certain times. As noted above, the level of perceived risk inherent in medical decisions is what moves the doctor–patient relationship from one of trust to one of dependence. The chapter now moves to discuss the significance of the asymmetry of power between the lay person and the 'expert'.

7.41 Medicine as a form of social control

Medical practitioners have been described as agents of social control (Charon 2001). Although it has been argued that patients have recently sought empowerment through the rejection of medical paternalism (May 2007), empirical findings suggest that for some individuals, even when their trust has been violated, it is difficult to challenge a doctor because of their institutional power (Lupton 1997a).

From the very beginnings of the sociological investigation of medical

> *practice (Henderson 1935) it has been conceived as a dyadic encounter, defined by asymmetries of power, the negotiation of rational and authoritative scientific knowledge, and private, proximal, relations (May 2007:29).*

Foucault's connection between knowledge and power has clarified how professional social control emerged (Waitzkin 1989a). Professions such as medicine have developed and taken on positions of control in society. The control of medical professionals lies in the knowledge and language they use as a means of intervening in and controlling others' behaviours (Waitzkin 1989a); they act as gatekeepers to treatment and services (Mechanic and Schlesinger 1996; Gifford 2002; Allsop 2006; Dew, Morgan et al. 2007). As noted above, a central component of the doctor–patient interaction is the asymmetry of power (Arrow 1963; Parsons 1964).

Schnittker (2004) suggests that, in view of the uncertainties and asymmetries in a doctor–patient relationship, patient trust is crucial. However, the present findings suggest that this is not the case. For many of the participants, their access to care and medication prohibit them from making the choice to trust. For example, participants suggested that because they needed medication, access to pathology tests or emergency medical procedures, that they had no choice but to trust. This indicates that although trust may be therapeutic and enhance doctor–patient relationships, the control that medical professionals have does not make their relationship with patients one that necessarily warrants trust. Of significance to this research is the finding that, despite the alleged increase in patient agency, the power inherent in the medical profession will, at present, render lay individuals dependent.

Although trust has been related to power in the literature there has been little empirical evidence reported about the relationship (Wright 2004). The findings of this research suggest that power is not necessarily a factor that influences trust but rather, one that influences dependence (see Figure 5, Section 7.1).

7.5 The role of risk and reflexivity in patient compliance

The extent to which trust plays a role in patient compliance remains unresolved. All of the participants trusted the information that they received regarding dietary

recommendations but not all participants were compliant. Horace and Jill, for example, are not compliant but trust their doctors. This would suggest trust may not play a role in compliance. Alternatively, many participants trust their doctors and are compliant. It is unclear what role trust plays in patient compliance given the high levels of trust that participants demonstrated in the medical professionals. However, investigating patient compliance proved useful for considering risk and reflexivity. The findings suggest that the participant's perceived level of risk involved in their CHD played a role in their compliance with the dietary recommendations provided by healthcare professionals. As suggested in the qualitative results, participants who perceived their risks to be higher (comparatively within the group), indicated that the level of risk in their CHD is what kept them compliant. Many of the participants, for example John and Philip, indicated that right after their surgery, they were extremely vigilant with their diet and followed the professional's recommendations. However, as the perceived level of risk involved in their CHD decreased, they allowed themselves to relax with regard to their restrictions. The idea that risk is linked to compliance was also evident in Fennel's and Steve's responses. They suggested that, as their health worsened, they became more vigilant with their dietary restrictions. The participant's perceived risk of their CHD appears to be inherently linked to compliance.

Many of the lower risk participants indicated that they sometimes slip back into old behaviours despite having been given dietary recommendations. Crawford (2004:507) suggests that people who are health conscious are aware that no matter how much one complies with advice, there will always be health risks that far exceed 'personal capacity for protection through lifestyle changes or other preventative actions'. This author suggests that regardless of the preventative actions people take regarding their health, there are more hidden dangers to be discovered. Many of the participants in this study indicated similar sentiments in their responses. Specifically, Ryan suggested that it would be sad to go through life restricting oneself only to get hit by a truck. This idea is consistent with Davison, Frankel et al. (1992) who suggest that one of the major problems facing professionals in preventative medicine is the failure of many individuals to comply fully with healthy lifestyle advice. The failure to comply has been linked to lay attitudes which sees health as being largely determined by external forces that are outside the control of the individual and 'thus denies the possible relevance of personal behavioural change' (Davison Frankel et al. 1992:676). The suggestion is that in contrast to patients who see themselves as having a role in risk minimisation,

other patients have a fatalistic attitude regarding their health. As a result, they do not believe that they have much control over their health status, which provides little incentive for making preventative changes such as complying with dietary recommendations.

The term ‘perceived’ risk is used here because although the participants were identified for the purpose of this study as being higher or lower risk CHD patients, many of participants who self-identified as lower risk could have been categorised as being high risk and vice versa. As a result, the findings were not consistent within groups of participants. Rather, it was found that the participants’ perceived level of risk affected their compliance, not whether they have high cholesterol levels or have had a heart attack. Davison, Davey Smith et al. (1991) suggest that individuals may identify themselves as ‘coronary candidates’, where one of the identifying factors is having a family history of heart disease (Davison, Davey Smith et al. 1991). It has been argued that lay people make a distinction between what is within the realm of personal control and what is not (Crawford 2004). This was evident in some of the lower risk participants. Many identified themselves as candidates for heart disease and consequently they were compliant because they saw themselves as having a role in minimising the risks of CHD. Leslie, for example, was identified as a lower risk participant for the purpose of this thesis. However, she was extremely committed to following the recommendations of her healthcare professionals because of risks inherent in CHD. The literature also suggests that perceived risk plays a role in the functioning of the doctor–patient relationship. When patients are seriously ill, their fears become more specific and are devolved into emotional dependency and in this case, the doctor is no longer threatening or controlling, but rather reassuring (Lupton 1996).

While Luhmann argues that trust must exist in situations of risk, the findings have identified a gap in this conceptualisation. Luhmann suggests that trust is only possible in a situation where the negative outcomes (risks) may be greater than the positives that successful trust awards (Luhmann 1988). However, the findings of this research suggest that in situations where the risks may be greater than the positives that successful trust awards, patients ‘depend’ on healthcare professionals. They do not necessarily trust them. The problem is that the extent to which risk plays a role in trust in doctor–patient relationships is difficult to determine, given the nature of the doctor–patient relationship. There are many factors that influence an individual’s decision to ‘trust’ or to depend on healthcare professionals in situations of risk or

emergency. One of these factors is the asymmetrical power relationship between doctors and patients. The findings indicate that risk is a component of both trust and dependency. What is in need of further investigation is how much risk is necessary to move a patient from reflexive trust to submissive dependency.

Contrary to the literature, findings suggest that, along with risk, reflexivity plays a role in patient compliance. Literature has suggested a shift toward incorporating patients' perceptions into medical decisions (Thompson 2007). It has been suggested that the idea that patients are 'compliant' is at odds with the argument that some patients are playing a larger role in their medical decisions (Meyer, Ward et al. 2008). This idea is also suggested by Giddens' notion of reflexivity. It has also been suggested that the word concordance be used as a means of combating this problem. However, the findings suggest that the word 'compliance' does not indicate a lack of reflexivity on the part of the patient. While participants said that they were 'compliant', many responses indicated that the participants were still playing a reflexive role in the degree of their compliance; compliance does not always indicate submission or lack of reflexivity.

It has been suggested that the aim of concordant relationships is the establishment of a therapeutic alliance between a doctor and patient (Bell, Airaksinen et al. 2007), rather than patient dependence (Meyer and Ward 2009b). However, the results suggest that for some participants, compliance still indicates a form of alliance. Many participants followed their healthcare professional's recommendations to a degree but also made a reflexive choice to veer away from the provided instructions. Ryan and Fennel, for example, made the reflexive choice to cheat from time to time because the risks of non-compliance do not outweigh the benefits of enjoying life. Horace chose not to follow the recommendations at all, despite the fact he trusts his GP. The key here is that these participants are actively making a reflexive choice regarding their level of (non)compliance.

Concordant relationships indicate reflexive agency. A patient who wants their doctor to make all of the decisions may still have a concordant relationship with their doctor; the key is that they make a reflexive choice with the doctor to agree that the doctor will make the decisions and they will actively follow the doctor's recommendations. Conversely, compliance indicates a lack of reflexivity. For example, patients 'just follow' the recommendations with no question or doubt. While this still indicates that agency is involved because the patient makes the active

choice to comply, it suggests a lack of reflexivity in that they do not consider the alternatives (for example, another line of treatment). Trust plays a major role in concordant relationships because these require the professional to communicate with the patient so that he/she is aware of their specific interests and is familiar enough with the professional to be assured of their care and competence (Brown 2008).

The findings also suggest that, at times, compliance is a non-reflexive act – patients are submissive. For example, Bob relentlessly follows the dietary recommendations that he received because they were recommended to him by a professional and it would be 'foolish' to do otherwise. Bob's response indicates a lack of reflexivity. He is compliant because he feels the doctor knows best. On the contrary, for George being compliant was too complex, the decisions of what (not) to eat made him trust his intuition and be sensible. George's response may indicate a lack of reflexivity, or alternately what Lehrer (1997) refers to as self-trust. It has been argued that because trust in healthcare is declining, individuals have become reliant upon themselves; self-trust is a way to reduce the complexity of their decisions. This idea fits in with Luhmann's conceptualisation of trust; that trust is a means of reducing complexity (Luhmann 1979). However, George's trust is placed in himself: 'the first step in a life of reason is self-trust' (Lehrer 1997:5).

The findings suggest that reflexivity can be a part of a compliant doctor–patient relationship. A question that arose from this finding became, is there a semantic distinction between concordance and compliance? Can we use the terms interchangeably (despite the political implications)? The findings from the study indicate that in both compliant and concordant doctor–patient relationships, following dietary recommendations or not following recommendations (compliance or non-compliance), involve a level of agency – patients choose to be compliant or choose not to be compliant. The key is that patient compliance does not always involve reflexivity, which is what differentiates it from doctor-patient concordance. While a compliant patient may actively choose to be compliant, they may not reflexively consider their compliance or question the advice they are receiving – they may just simply follow the doctor's orders. This lack of reflexivity may stem from dependence on 'professional' or 'expert' advice, or it may be the result of social factors (information rich versus information poor). This chapter now moves on to discuss the social factors affecting patient trust and reflexivity.

7.6 The impact of social change on patient trust

While it appears that power is an influential component of the doctor–patient relationship, the medicalisation argument has been challenged by recent trust literature (Lupton 1997b). Recent sociological literature suggests that patients are taking back control over their medical decisions (Crawford 2004; Kraetschmer, Sharpe et al. 2004) and are increasingly critical of the wisdom of authorities (Kelleher, Gabe et al. 1994; Taylor-Gooby 2006d) and those making decisions on their behalf (Birungi 1998; Davies and Rundall 2000; Mechanic and Meyer 2000; Russell 2005) as late modern individuals become more autonomous through access to information and technology. However, it was argued earlier that there are a number of factors that act upon an individual's ability to take control and act as a reflexive agent. Giddens, it was argued, does not successfully address social factors when arguing that all modern individuals make the reflexive choice to trust. This gap was also evident in applied research. It was apparent from the review of the literature that more research was needed to investigate the social factors affecting patient reflexivity and the extent to which these social factors play a role in trust.

Reflexivity with regard to trust in medical professions is stratified. Consistent with earlier arguments, the quantitative results indicate that individuals differ with regard to their reflexivity when trusting medical professionals. The present findings indicate that only a proportion of the lay population are reflexive when it comes to medical decisions. Reflexivity may be predicted by the social factors sex, age, health status, and SES.

As noted in the results, only 53% of respondents have requested a second opinion from medical professionals. The findings suggest that females aged 18–34 without a chronic health condition who live in advantaged areas are the most likely to have requested a second opinion from a doctor. The results may be explained by the fact that this group of individuals is likely to have, on average, more visits to medical professionals. Females have been shown to use healthcare services more frequently than men (Cleary, Mechanic et al. 1982; Bertakis, Azari et al. 2000) and because these women are between the ages of 18 and 34 the results may also reflect that young women are the most likely to have children who they take to doctors. The number of visits may be directly related to the higher level of requests for second opinions. Age may also play a role in the fact that these women do not have a chronic health condition. The fact that these women live in advantaged areas

may explain their access to healthcare as the result of income and their ability to buy private health insurance. Health service utilisation is preconditioned by accessibility (Thiede 2005).

These findings are consistent with results regarding doubt in information from the family doctor. Females aged 18–34 are the mostly likely to doubt their family doctors and respondents aged 18–34 are the most likely to doubt information from doctors in general.

The findings also indicate that a certain proportion of the population are more likely to be reflexive in general; they are more likely to doubt information from individuals and institutions. Consistent with reflexivity about trust/doubt in doctors, young females with a high income, fair/bad/very bad health, and a chronic health condition are the most reflexive about doubt and trust in doctors and groups of individuals. Again, both of these findings are probably a result of the fact that women are more likely to use health services.

The findings suggest that while not all individuals have concordant relationship with their doctors, there are indeed patients who have and want a concordant relationship with their healthcare providers. For example, John and Steve discussed the shift in the role of the doctor–patient relationship and that they now play a more active role in their medical decisions. As noted extensively in the discussion on doctor–patient interaction, the social status of the medical practitioner has changed over time (Haug and Lavin 1981; Kelleher, Gabe et al. 1994; Lupton 1997b; Scambler and Britten 2001; Lupton 2003; Germov 2009). However, this was not the case for all participants. Several participants did not question their doctor's judgement and did not take an active role in their medical decisions. For example, Cindy suggested that a doctor is someone to be respected and she would never question the authority of a doctor. Carrie and Cindy, for example, suggested that they grew up respecting doctors – the doctor is the expert. This finding suggests that these participants are unreflexive when it comes to medical advice. The qualitative data suggests that age and socio-economic status are factors influencing the level of reflexivity or responsibility patients want in their medical decisions. Participants from lower SES areas who are older are less reflexive about medical advice which may explain why they are less likely to participate in a concordant relationship. Findings suggest that they are less likely to doubt or question their healthcare professionals.

The qualitative findings regarding reflexivity are consistent with the quantitative findings. People aged 85 and over are the least likely to doubt information from doctors. The findings suggest that a proportion of individuals are not reflexive when it comes to trust. As a result, the doctor–patient relationship in these respondents' situations is one of compliance, not concordance. However, the respondents least likely to doubt are the oldest generation of respondents, and the most likely and most reflexive are consistently the younger generation. As a result, research around the role of doctor–patient concordance will become increasingly important. These findings may be explained by the findings in the qualitative research. Several of the older participants said that they grew up respecting doctors and that as the expert, they would not doubt doctors. This idea is supported by an earlier study which suggested that older people were much less likely than younger participants to have sought treatment from alternative therapists (Lupton 1997a).

The findings are consistent with earlier suggestions that older people were less likely to demonstrate consumerist behaviours, as were socio-economically deprived individuals (Lupton 1997a). Similarly, in another study it was found that younger female individuals with higher incomes and more education were more likely to believe that power and information should be shared between doctor and patient (Krupat, Bell et al. 2001; Trachtenberg, Dugan et al. 2005).

The above discussion has focused on the factors associated with trust. These factors include reflexivity, risk, power, dependence, and compliance. In addition, it was discussed that the lay conceptualisation of trust differs from academic definitions which may explain why there is such inconsistency as to whether trust in healthcare is indeed declining. The findings suggest that academics do not appreciate the ways in which lay individuals conceptualise trust. The following section of this chapter discusses the quantitative findings with regard to trust in healthcare.

7.7 Declining trust in healthcare and health professionals

7.71 Trust in healthcare professionals

Applied literature has suggested that trust in healthcare professionals is declining. The findings of the qualitative and quantitative components of this thesis are not

consistent with this argument. Findings indicate that trust in health professionals is strong.

The quantitative findings suggest that trust in health professionals is high. With regard to trust in the respondents' regular doctor, 98.1% of respondents suggested they trust their regular doctor somewhat or completely. These findings were consistent with regard to trust in doctors in general, with 22.4% suggesting they trust them completely and 70% indicating they trust them somewhat. Luhmann argues that trust has to be achieved in a familiar world, but 76.7% of respondents said that they would have some degree of trust in a doctor they have never seen before. This may suggest that respondents are familiar with the medical system, even if they are not familiar with a specific healthcare professional. For example, it was noted earlier that in modernity, we deal with virtual time and space and as result expert systems deploy technical knowledge that has validity independent of the practitioners who make use of it. The notion of time has been included in the model outlined in Figure 4 because these findings suggest that time invested in the system or the individual healthcare practitioner may play a role in familiarity and dependence. Respondents' suggestion that they trust doctors in general also indicates that familiarity with the medical system may influence trust.

The notion of time was also apparent in the quantitative findings. Respondents who had been seeing their GP for one to five years were 2.78 times more likely to trust doctors in general than respondents who had been seeing their GP less than one year. The longer the individual had been seeing their current GP, the more likely they were to trust doctors in general. The findings which suggest that respondents trust doctors in general also support the familiarity argument. This indicates that they trust doctors they do not know, and it also suggests that familiarity in the system may influence trust.

Lupton (1997a) has suggested that factors like social class (SES) and age shape the way lay people approach medical encounters (Lupton 1997a). In keeping with this argument, the findings suggest that there are specific social factors that influence trust in doctors. Findings from the multivariate analysis suggest that people with an annual household income of $0–49,999 who have been seeing their GP for 1–5 years are more likely to trust doctors in general. In addition, older respondents living in disadvantaged areas are the most likely to trust a doctor who

they have never seen before. These findings will be explored in relation to empirical literature.

The quantitative findings are consistent with literature that shows increased duration of the doctor–patient relationship is associated with increased trust (Kao, Green et al. 1998; Thom, Ribisl et al. 1999; Mainous III, Baker et al. 2001). As indicated earlier, the notions of time and familiarity may provide insight into the association between the length of time that respondents have been with the GP and trust. The findings are also consistent with the suggestion that increased age is related to higher levels of trust in doctors (Thom and Campbell 1997; Thom, Ribisl et al. 1999; Mainous III, Baker et al. 2001; Thom 2001; Hall, Camacho et al. 2002).

There are also some inconsistencies between the findings and the literature. The literature around trust and income is itself inconsistent. It has been suggested in one study that income has a weak relationship with trust (Thom, Ribisl et al. 1999; Mainous III, Baker et al. 2001) while a separate study suggests that the wealthy are more trusting than their poorer counterparts (Schnittker 2004). The findings are also inconsistent with regard to SES (based on relative income and IRSD). Literature suggests that lower socio-economic status has a weak relationship with trust (Schnittker 2004) which is at odds with the findings of this thesis suggesting that poorer people living in disadvantaged areas are most likely to trust. The inconsistency in findings about income and SES may be explained by the fact that earlier studies were conducted in the United States and the United Kingdom. As noted earlier, it has been argued that the decline in trust varies according to the values and organisation of a country's healthcare system (Calnan and Sanford 2004). It was also suggested earlier that non-profit healthcare arrangements are more trustworthy (Schlesinger, Quon et al. 2005). It cannot be assumed that respondents with low income living in disadvantaged areas do not use private healthcare. However, if this were the case, it would be more likely that respondents who use public healthcare have higher trust in healthcare professionals.

In order to analyse respondents' overall trust in doctors, they were given a score of 3–12 (with 3 being the most trusting) for their level of trust in doctors overall (trust in their regular doctor, doctors in general, and a doctor they have never seen before, recoded as one variable). The findings from this analysis also suggest that trust in doctors is high (mean score of 5.23). This indicates a high level of generalised trust in doctors among respondents.

The quantitative findings regarding age are consistent with the qualitative findings. Participants Carrie, Jim, Will, and Cindy, for example, said that they are from a generation raised to respect doctors. Each of these participants was from the lower SES group and aged between 71 and 77 years. Schnittker (2004) suggests that lower SES individuals are more sceptical towards medicine in general, which may be rooted in their awareness of historical abuses in medicine or that people of lower SES report they are less likely to participate in medical consultations than people of higher status. However, the findings in this study differ. The participants identified as lower SES in the qualitative research were more trusting and less reflexive with regard to their trust. This may be reflective of the age of the participants (mean 66, median 68) however the quantitative findings are consistent with the qualitative findings, with respondents of lower SES having higher levels of trust.

The findings regarding the association between length of time with the GP and trust are also consistent with the qualitative results of this thesis. As noted in the findings, some of the participants indicated that the length of time they have been seeing their GP influences their trust. Lexi, for example, said that the length of time she has been seeing her doctor definitely impacts on her trust. The notion of time is a central concern to Luhmann in relation to trust and familiarity, and he outlines the problematic relationship between trust and time: 'To show trust is to anticipate the future. It is to behave as though the future were certain' (Luhmann 1979:10). Luhmann's argument fits in with the findings of this thesis. Familiarly plays a role in participants' trust in their GP.

The qualitative findings also suggest that trust in health professionals is strong. As noted above, the structure of the healthcare system in Australia may explain why, contrary to other applied literature, trust in Australian healthcare professionals is still strong. The Australian healthcare system is structured in a way that allows for most Australians to choose their own GP (Willis, Reynolds et al. 2009). This was the case for the majority of the participants in the qualitative sample. As a result, participants were able to choose doctors who they trusted and, indeed, a number of the participants changed GPs when they were not satisfied with the care they received. It would be unlikely for patients to continue to see a GP who they did not trust (Hall, Camacho et al. 2002). For example, when asked why he trusts his GP Ken states '…you don't trust your GP you go elsewhere don't you? I mean you have to.' Participant responses indicate that because they had the choice, they could

reflexively weigh the risks involved in trusting a certain GP (and change GPs if they were unhappy). Trust in their GP was a matter of 'choice', regardless of whether the patient was identified as being higher or lower risk. This finding is supported by earlier applied work which found that patients who changed doctors in the past have greater trust of their current doctor (Balkrishnon, Dugan et al. 2003) and that trust was higher among patients who actively chose their doctor (Thom, Ribisl et al. 1999).

Although a large number of the participants were able to choose their own GPs, many participants in the qualitative study did not have private health insurance. As public patients, they have no choice or preference for their specialists, cardiologists or surgeons. This differs from private patients who are able to choose the doctors they see (unless they present at the emergency department). However, despite this, the public patients said that they trusted the doctors and the health professionals they had not met before consulting with them at specialist appointments or in hospital. This finding is consistent with an earlier study which found that 79% of participants trusted a specialist after an initial visit (Keating, Gandhi et al. 2004). This may be the result of their dependence in these circumstances (when they were seeing a doctor in times of emergency). However, the present findings also suggest that, because for many their GP referred them to a specific cardiologist or health professional, their trust was transferred from their GP to the specialist they were seeing. This will be discussed in more detail below with regard to the operationalisation of trust. It appears that trust in one healthcare professional is linked to trust in a secondary health professional and that trust is transferrable. This finding may also suggest that the participants are familiar with the healthcare system which influences their trust in the professionals within the system.

7.72 Trust in the healthcare system

As mentioned in the introduction of this thesis, empirical research indicates that trust in the health system is declining, along with a number of organisations/institutions in democratic societies (Birungi 1998; Davies and Rundall 2000; Mechanic and Meyer 2000; Gilson 2003; Russell 2005). However, the qualitative findings of the present research suggest that trust in the healthcare system remains strong.

As suggested in the literature review, there is a lack of empirical research investigating institutional trust in Australian healthcare. As a result, the qualitative

component of this thesis investigated institutional trust in both the structure of the healthcare system and also in the role of influential social systems affecting the organisation, operation, and management of the Australian healthcare system. The findings suggest that the structure of the healthcare system, a two-tiered system, may be one of the reasons that Australians have maintained trust in healthcare.

A large proportion of the participants discussed problems with the current medical system which were primarily problems with funding. This is consistent with earlier research which suggests that concerns regarding healthcare institutions stem from financial concerns regarding cost cutting and waiting lists (Calnan and Sanford 2004). However, despite their concerns, the majority of participants trust the healthcare system. Both public healthcare system users and private insurance holders noted the problems with cost cutting, which included extended waiting lists and other issues for public patients. However, the participants trust the health system and healthcare professionals and place the blame for medical shortages on the government. The link between government and the healthcare system will be discussed in more detail with regard to the operationalisation of trust below (section 7.9). More pertinent here is the argument that participants appear to trust their healthcare systems.

The reason the word ‘systems’ is used is because of the two-tier healthcare arrangement in Australia. While participants did indicate they trust their healthcare system, the ‘system’ they were discussing depended on their medical insurance cover. A common trend in the findings was the distrust in the public system among participants who held private healthcare insurance. While they trust the private system, many said that they would not be without private health cover.

These findings are inconsistent with the literature. Schlesinger, Quon et al. (2005) found that non-profit healthcare arrangements provide more trustworthy services. This occurs for two reasons. The first is that doctors are less motivated than those working privately to pursue practices that generate surplus return because they cannot personally profit. The second reason is that non-profit health systems have more open governance and are those more open to the influence of community members (e.g. via voting) (Schlesinger, Quon et al. 2005). These findings are beneficial for making sense of the data presented in this thesis. Participants without private health insurance were very happy with the healthcare system and many did not understand the need for private health insurance. They did not see the rationale

for paying for a service that was already provided. However, the participants who have always had private health insurance were so trustful of the private system that they would not be without it. Their responses indicated a fear of losing their health insurance. Media coverage on health matters is typically analysed in terms of risk amplification (Brownlie and Howson 2005a). Media stories appear to have fuelled a fear that for those without health insurance, healthcare is not trustworthy because participants spoke of their fears of waiting times for elective surgeries and overcrowded hospitals.

An additional explanation for the maintenance of trust can be found in the above argument which suggests that although the participants say they trust, they are in fact dependent on the healthcare system. This is an additional, not alternative explanation, because the findings indicate that situations in which people trust and situations in which individuals depend are entirely different. Indeed, participants discussed trust in specific clinics and the medical education system. It was only in discussing emergency situations, for example having emergency heart surgery, that dependence was evident in the responses.

The following section turns to a discussion regarding the characteristics of doctors that were found to be related to trustworthiness, from both the qualitative and quantitative analyses.

7.8 Trustworthy characteristics

Literature suggests that patients appear to understand and value trust, and identify specific actions of doctors that diminish or enhance such trust (Thom and Campbell 1997). In the qualitative interviews participants were asked to identify characteristics of their healthcare professionals that they deemed trustworthy.

Consistent with Giddens' argument, findings suggest that participants see their GPs and other healthcare professionals as representing the system; they are the 'face' of the system. Facework commitment, as Giddens (1990) discusses, is dependent on the demeanour of the 'expert' (in health systems, the doctor or other health professionals). Their level of professionalism, their mannerisms, and other aspects of their personality affect our impression and expectation of them. While participants did suggest that their trust in healthcare professionals was inextricably linked to their

trust in the systems behind the individuals, participants also talked about the specific characteristics that made them trust certain healthcare professionals. Many of the participants discussed trustworthy characteristics such as feeling comfortable with their GP, their GP is caring and listens to them, spends time with them, involves them in their medical decisions, and talks to them in their language. These findings are consistent with the applied literature which suggests that competence, honestly, morality, integrity, accountability, and empathy are seen as trustworthy characteristics (Gambetta 1988; Mechanic 1998b; Thom 2000; Hall, Dugan et al. 2001; Hall, Camacho et al. 2002; Hall, Dugan et al. 2002; Fiscella, Meldrum et al. 2004; Russell 2005; Cruess 2006; Silvester, Patterson et al. 2007; Thompson 2007; Meyer and Ward 2008). These findings may indicate that a proportion of the participants want shared decision making with their healthcare professionals. The concordance literature defines this relationship as one that incorporates patients' perceptions into medical decisions (Thompson 2007). This coincides with participants' descriptions of a trustworthy doctor as one who listens to them, involves them in medical decisions and speaks their language. The finding may suggest that for some participants, concordance between patient and doctor is a defining characteristic of a trusting relationship.

Mullen (1997:691) suggests that concordance is the concept that can be used to combat the 'compliance problem.' There is currently a shift toward incorporating patients' perceptions into medical decisions (Thompson 2007). Post-industrialised countries have witnessed a shift from acute to chronic health conditions due to improved living conditions and access to healthcare. Consequently, contributions on the part of patients in managing their chronic conditions have become increasingly important (Thompson 2007), requiring patients to take an active role in their own healthcare.

The above discussion related to characteristics that participants found to be trustworthy in doctors they know. The participants in the qualitative study were speaking of doctors they see currently or have seen in the past; doctors with whom they are familiar. However, earlier it was argued that recent studies investigating trustworthy characteristics have not investigated characteristics participants finding trustworthy in a doctor they have never met before. As a result, the quantitative aspect of this thesis asked respondents to identify the characteristics affecting trust in a doctor they had never seen before. Respondents were asked to identify the extent to which certain characteristics would influence their decision to trust a doctor

they have never seen before. Findings from the quantitative component of this thesis suggest that in the absence of familiarity, there are still specific characteristics that are seen as being trustworthy.

A doctor's appearance does not seem to influence respondents' trust. Only 6.6% of respondents said that they way the doctor is dressed would influence their trust. The respondents most likely to be influenced in terms of trust are those aged 18–34 living in areas identified as highly advantaged. Similarly, only 7.1% of respondents indicated that their doctor wearing a white coat would influence their trust somewhat, but not a lot.

The findings suggest that respondents want their doctors to appear to be caring and competent, with 87.2% indicating that a doctor appearing to be caring influenced their trust somewhat or a lot while 90.9% indicated that the doctor appearing to be competent influenced their trust somewhat or a lot. Results of multivariate analyses of both questions indicate that female respondents living in advantaged areas with an income of $105,000–150,000+ are the most likely to be influenced in terms of trust by the doctor appearing to be caring and competent.

Findings suggest that a doctor's age affects respondents' trust in doctors they have never seen before. Findings suggest that older respondents who have been seeing their GP for less than one year are likely to be influenced in terms of trust by the doctor appearing older than 40. Age was also found to be associated with trust in doctors who appear younger than 40. Older respondents are significantly more likely to be influenced in terms of trust by their doctor appearing younger than 40. The results remain unclear because of the ambiguity in the question. Although the response indicates that respondents' age influences trust, it does not indicate whether their age makes respondents more or less likely to trust.

Findings indicate that the sex of the doctor does not influence individual's trust in a doctor they have never seen before, with 84.0% of respondents indicating that the doctor being female would not influence their trust at all while 85.3% said this for the doctor being male. However, there is a proportion of respondents whose trust is influenced by the doctor's sex. The multivariate odds ratios suggest that wealthy young people with good health are the most likely to be influenced in terms of trust by the doctor being female. Similar to the odds ratios for females, age, and income were found to be associated with trust in the doctor being male. Younger

respondents aged 18–34 with an annual household income of $0–49,999 are the most likely to say that the doctor being male influences their trust. However, contrary to the findings regarding trust in females, people in the lowest income bracket are the most likely to be influenced by the doctor being male. However, given the ambiguity in the question, it is difficult to explain the findings. This remains one of the limitations of this study.

The findings suggest that doctors appearing to be incompetent and uncaring are two characteristics that could make or break trust in unfamiliar situations. These findings are consistent with earlier research suggesting that among other things, a caring doctor is trustworthy (Hupcey and Miller 2006). In addition it has been suggested that trust in health providers includes a strong sense of reliance on the competence of the knowledge the professional provides (Hupcey and Miller 2006).

Hupcey and Miller (2006) found that most participants in their study believed that, contrary to Luhmann's conceptualisation of trust, trust was instantaneous upon meeting an individual or healthcare provider; that familiarity did not play a role in trust. Some of their participants suggested that there was an intuitive or gut feeling that the person could be trusted, which has been noted in other literature (Meyer and Ward 2008). This would suggest that trust in healthcare providers may be inherently based on their profession which indicates that familiarity in healthcare professionals does not always play a role in trust. It may be that trust is the result of familiarity in the system.

7.9 The operationalisation of trust

The most apparent gap across all literature is the lack of understanding regarding the operationalisation of trust. Giddens and Luhmann have both been influential in the pursuit of understanding trust. They have both made significant contributions to understanding the complex trusting relationships that exist between and within different social groups, systems and levels. This thesis was framed by a critique of their theories and investigated the operationalisation of trust.

The objective of investigating the operationalisation of trust was to determine whether social factors play a role in trust and to determine the multidimensionality of how trust operates. Social factors have been dealt with extensively above. As such,

the following discussion deals specifically with the origin of trust and the way in which interpersonal and institutional trust are interconnected and operate. As noted in the literature, Giddens and Luhmann operationalise trust differently. As a result, one of the questions (and initial critique) that drove this research is 'what is the relationship between trust in an individual and/or the social system(s) which they represent?' A secondary question asked: 'what is the direction of that relationship?' In terms of the application to trust in healthcare the questions remained: (1) For someone to trust a doctor, do they first need to invest trust in the medical system (institution) and/or the knowledge base of medicine, and (2) For someone to trust the medical system, do they first have to invest trust in a doctor?

7.91 Link between interpersonal trust and institutional trust

As noted in the literature review, Giddens (1990) says that trust is sustained through interpersonal relationships, termed facework commitments – trust in the doctor is required in order to have trust in the medical system. Participants in the qualitative interviews discussed their trust in individual healthcare practitioners as well as trust in institutions. They suggested that their trust in healthcare professionals was based in their trust in the system behind the healthcare professional; the education system that trained them, the medical system itself, the regulatory systems that ensure they are qualified. Giddens' suggestion that trust is sustained in interpersonal trust could not be investigated in this research. Given the high level of trust in healthcare professionals, it remains unclear if there is an association between distrust in healthcare professionals and (dis)trust in the healthcare system.

The findings however are consistent with Giddens' argument that 'the real repository of trust is in the abstract system, rather than the individuals who in specific contexts "represent" it' (Giddens 1990:85). Giddens moved on to discuss 'access points'. His suggestion is that access points (GP surgeries, the hospital, medical clinics etcetera) are the meeting ground where individuals are seen to represent the system. The present findings suggest that participants do identify healthcare professionals as representations of the system. When they discussed their 'trust' in healthcare professionals, participants often talked about their trust in the institution behind the healthcare professional. It has been suggested that institutional trust can be broken down into trust in the specific (a hospital, clinic or other known institution), and trust in the broad social or professional system (the medical system) (Hall, Camacho et al. 2002). Whether they consciously realised it or not, participant

responses indicated that their trust in healthcare professionals results from their trust in the system.

The quantitative results were also analysed as a means of determining the relationship between interpersonal and institutional trust. As a way of investigating this, two multivariate analyses were carried out identifying the associations between trust in individuals (doctors in general, a doctor the respondents have never seen before) and trust in organisations.

Results indicate that respondents who trust doctors in general are more likely to trust specific organisations. After controlling for the seven listed demographic factors, the findings indicate that respondents who trust doctors in general are more than twice as likely to trust religious organisations, the legal system, and the United Nations. This finding is of interest because overall trust in these three specific organisations was found to be low for the general population, showing that 38.2% of people do not trust religious organisations, 44.3% do not trust the legal system, and 43.5% do not trust the United Nations[11].

These findings are similar to those regarding the association between trust in organisations and trust in a doctor the respondent is seeing for the first time. Respondents who trust a doctor they are seeing for the first time are also more than twice as likely to trust religious organisations, the United Nations, and banks. Trust in banks was also found to be low in the overall respondent group.

It remains unclear whether trust is initiated at an interpersonal or institutional level. However, there is an inherent association between interpersonal trust and institutional trust. It is evident that people who trust doctors are much more likely to trust institutions. In the qualitative interviews participants who trust doctors also discussed trust in specific clinics, the healthcare system, and other systems involved with the healthcare system. However, for the survey respondents the institutions that were found to be associated with trust in doctors are systems that are arguably not associated with the healthcare system (the United Nations, religious organisations, banks, and the legal system). This may suggest that overall, this group of

11 Percentages shown are combined results for ‘do not trust them very much’ and ‘do not trust them at all’.

respondents trusts generally. This would support the finding that these noted systems are not systems in which other respondents trust.

Overall, both the qualitative and quantitative findings suggest there is an association between interpersonal and institutional trust.

7.92 Link between institutional trust and institutional trust

Luhmann argues that trust in the system is necessary before an individual can have trust in the system's representative. For instance, Luhmann would argue that in order to have trust in a medical professional, an individual must first have institutional trust in the medical system and in the systems it mutually interacts with and is influenced by (the economic and education systems among others).

Similar to the problem above investigating the association between interpersonal and institutional trust, the high levels of trust in doctors made it difficult to determine if the origin of trust is in the system, rather than the individual. However, the findings did prove to be useful in investigating participants' trust between mutually interacting systems.

As noted in the findings, participants often discussed the role of the government in healthcare. Participants noted the mutual interaction between systems; whether it is between the healthcare system and the government, the economic system, the education system, or the interconnection between the public and private healthcare systems. The findings do not support Luhmann's argument that trust in one system is a prerequisite for trust in systems that mutually interact with the system under discussion. Several participants said that they trust the medical system but do not trust the government. They identified the government as being responsible for funding and regulation of the medical system, that there is a mutual interaction between the systems. However, the findings suggest that individuals can have trust in a system without having trust in the systems with which it interacts.

Although the findings are inconsistent with Luhmann's theory, these findings may also be explained by the noted blurring in the lay conceptualisation of trust. When asked about their trust in certain healthcare professionals, participants often discussed institutional trust. It appears that lay individuals do not distinguish between these two types of trust. Many of the participants discussed how unhappy

they were with the role of the government in the medical system. While this may indicate that they do not associate trust in the medical system with trust in the government, it may also indicate that the trust in healthcare they discussed is indicative of their trust in specific healthcare professionals. Their trust may actually be in the individual, not the system. If this is the case, the distrust in the government may be associated with distrust in the medical system.

Luhmann's theory is in need of further investigation. It is clear from the findings that individuals do associate systems with one another; the participants discussed trust in the medical system as being associated with trust in the regulatory systems of medicine and the education system. As a result, the model identified in Figure 4 identifies an interrelationship between systems and institutional trust. It may be that Luhmann's theory is not as clear cut as he presents it. Rather, the suggestion is more that there is a mutually interacting relationship between systems which a proportion of lay individuals recognise.

7.93 Link between interpersonal trust and interpersonal trust

Neither Giddens nor Luhmann, in their operationalisation of trust, discussed the interconnection between interpersonal trust in one individual and interpersonal trust in a secondary individual. While Luhmann discusses trust within and between social systems, there is no theory discussing this at an interpersonal level. The qualitative results indicate that there is an association between trust in one individual (their GP) and trust in another (a specialist). Many of the participants indicated that their trust in their GP influenced their trust in other healthcare professionals; cardiologists, surgeons, dietitians. This finding was not only evident in trust within and between doctors. Participants also indicated that they trusted certain healthcare professionals based on referrals from friends/family. This indicates that trust in one individual is associated with trust in a secondary individual; trust may be transferrable. This finding may be another example of the role of familiarity in trust. Luhmann argues that when an individual's level of familiarity changes, it impacts on the development of human relationships (Luhmann 1988). He argues that familiarity is a way of calculating risk. The findings suggest that the participants' trust in and familiarity with family members or doctors provides a means for overcoming the uncertainty or gap in knowledge of an unknown individual (e.g. a specialist).

The quantitative data were also analysed to investigate the association between trust in two or more individuals. Multivariate analysis was conducted to investigate the association between trust in doctors (doctors in general, a doctor the respondents is seeing for the first time) and trust in other groups of individuals. The results indicate that there is an association between trust in doctors in general and trust in other groups of individuals. Respondents who trust doctors in general are almost three times more likely to trust their local politician and to trust police officers. In addition, it was found that people who trust doctors in general are 29 times more likely than respondents who do not trust doctors in general, to trust a doctor they are seeing for the first time. The findings for the association between trust in a doctor the respondent is seeing for the first time and trust in groups of individuals are similar. People who trust a doctor they are seeing for the first time are 10 times more likely to trust people they meet for the first time, 77 times more likely to trust doctors in general, and 3 times more likely to trust people of another religion. As noted above, a similar association has been noted in the qualitative findings of this thesis. Participants were found to have trust in a cardiologist or specialist based on a referral from a trusted friend or doctor. These findings have not been discussed by either Giddens or Luhmann and thus add to the expansion of social theories of trust. There is a multidirectional relationship between interpersonal trust in one individual and interpersonal trust in a secondary individual (Figure 4, Section 7.1).

In order to further investigate the association between interpersonal trust/interpersonal trust and interpersonal trust/institutional trust, two additional multivariate analyses were carried out. The analyses investigated respondents' interpersonal trust in doctors (a doctor they are seeing for the first time and doctors in general) and trust in other individuals/organisations. After controlling for the seven demographic variables, trust in the eleven groups of individuals, and trust in the seven organisations, the results indicate that there is a strong association between trust in doctors and trust in other individuals. People who trust doctors in general are over 3 times more likely to trust their local politician and police officers. They are also over 42 times more likely to trust a doctor they are seeing for the first time. In addition it was found that people who trust a doctor they are seeing for the first time are over 8 times more likely to trust people they meet for the first time and over 43 times more likely to trust doctors in general. This indicates that there is an association between interpersonal trust and institutional trust. People who trust certain individuals are also more likely to have trust in organisations/institutions. Trust is multidimensional.

Although there were links between trust in one individual and trust in secondary individuals in these findings, it was also found that trust in doctors in general is a predictor of distrust in people the participants meet for the first time.

7.94 Conclusion regarding the operationalisation of trust

As noted throughout this thesis, the aim of this research was to determine the practical application of current social theories of trust. The theories of Giddens and Luhmann were critiqued, the critiques were published, and a model developed as a means of driving this research. The research investigated lines of inquiry as a means of further development of this theory. The qualitative research in this thesis has shed light on the applicability of Giddens' and Luhmann's social theories of trust. The findings indicate that specific doctor characteristics, time, familiarity, risk, age, SES, sex, and income are all factors influencing both interpersonal and institutional trust in healthcare (See Figure 4, Section 7.1).

The findings also suggest that trust is indeed multidimensional. Consistent with the earlier critique of social theories of trust, neither Giddens nor Luhmann alone provides a theory that can be applied as a means of investigating how and why trust is (re)built and sustained in society (Meyer, Ward et al. 2008). Both authors provide models of how trust is operationalised but their operationalisation remained difficult in terms of empirical investigation. The results of this thesis offer a model of trust that may be operationalised in empirical research. The findings suggest an association between trust in one individual and trust in secondary individuals; an idea discussed neither by Giddens nor Luhmann. In addition, it was found that there is an association between trust in individuals and institutions. The multidimensionality of trust may be viewed in Figure 4 (Section 7.1). The bidirectional arrows between interpersonal and institutional trust are used as visual aids. The aim is to demonstrate how trust moves within and between social system and individuals.

Chapter 8: CONCLUSION

8.0 Summary of findings

Social theory and the concept of trust are useful for investigating doctor–patient relationships and trust in healthcare. This thesis was informed by a critique of current social theories of trust. The empirical results were used to understand and model Giddens' and Luhmann's social theories of trust.

The aim of this thesis was to utilise the empirical data from this research as a means for theoretical development. In order to realise this aim, this thesis investigated the gaps in current social theories of trust through qualitative and quantitative methods. As a means of achieving this aim, nine objectives were outlined and have been met. In meeting these objectives, several conclusions were drawn regarding the conceptualisation and operationalisation of trust.

8.01 The conceptualisation of trust

Academics conceptualise trust differently to lay individuals. This may indicate a lack of appreciation of lay conceptualisations and may prove to be problematic for sociologists investigating trust. The findings from this thesis suggest that participants do not distinguish between interpersonal and institutional trust. This may be a consideration for future research on trust. Researchers should be appreciative of the difference in lay conceptualisations and be conscious of fact that despite their intentions to investigate trust, they may in fact be researching other concepts such as confidence or dependence.

Many lay individuals use the concept of trust to describe notions which may be identified as power and dependence. This finding is also beneficial for future research on trust. When developing interview guides and survey questionnaires, it must be taken into account that although questions may deal with the concept of trust, responses may not be indicative of what academics conceptualise to be trust. These findings also provide a solution to the inconsistencies in the applied literature (Calnan and Sanford 2004; Hall 2005; Evetts 2006; Kuhlmann 2006; Dew, Morgan et al. 2007) regarding the decline in trust in healthcare. Rather than demonstrating inconsistency, different findings may be indicative of (mis)interpretations of lay individuals' (mis)conceptions of trust.

The methodological tools used in this thesis also proved to be beneficial for identifying the distinction between lay and academic conceptualisations of trust. By recontextualising the data, it was evident that social structures, such as the power of the medical profession, shape the ways in which individuals interact with healthcare professionals. At times, responses indicated that their so-called trust was the result of an asymmetrical power relationship.

8.02 Social factors affecting trust and compliance

Trust

The social factors found to influence trust are socio-economic status, risk, time, familiarity, age, and income. Trust in doctors is also influenced by specific characteristics of doctors; namely, doctors' apparent levels of care and compassion.

The comparison regarding risk and SES outlined by the second objective suggests that both SES and risk affect a patient's trust in or dependence on doctors. Higher SES participants are more reflexive with regard to their trust and are more likely to doubt doctors than lower SES participants. Risk was identified as a means of distinguishing between trust and dependence. Responses from higher risk participants suggested that in emergency situations, participants are dependent on healthcare professionals. Risk was identified as playing a role in participants' decisions in non-emergency situations. These findings suggest that while risk is a component of both trust and dependence, the amount of risk is what distinguishes between the two.

Age was found to affect participants' trust in doctors, individuals and institutions. Older participants from both studies were found to trust doctors more than young people did, and to be less likely than young people to doubt doctors. These findings are consistent with factors affecting trust in individuals and institutions as older people are most likely to trust individuals, institutions and doctors. With regard to sex, it was found that women are less likely than men to trust doctors, individuals and institutions, and are more likely to doubt information from doctors and to request a second opinion.

These findings about the ways social factors are related to trust provide empirical backing for including social factors, along with risk and familiarity, as part of the

model of trust. Including these factors in this model provides a beneficial framework for future investigations into trust in healthcare, and potentially in other public health arenas.

Compliance

Participants' compliance is influenced by the notion of risk. Regardless of whether they were identified as higher or lower risk for the purpose of this thesis, participants who identified themselves as higher risk were more compliant than participants who perceived their risks to be lower. The notion of time was also apparent in participants' risk assessment and consequently, compliance. As time passed, their perceived level of risk appeared to decline and consequently, so did their compliance. Socio-economic status was not found to be directly associated with compliance. However, higher SES participants were found to be more reflexive with regard to their compliance.

These findings highlight target individuals to whom healthcare professionals may direct their attention when advising dietary recommendations. It is of value to know that participants' perceived risks decrease over time and consequently, so does their compliance. This information could perhaps be applied by cardiac rehabilitation programs as they might organise follow-up sessions at a certain period of time after patients' cardiac events.

8.03 The extent of trust in Australia

Australians are very trusting of individuals, institutions and doctors. However, trust in doctors is extremely high with 98.1% of participants saying they trust their regular doctors. While trust is high, target groups where trust is low were identified. The information regarding target areas may be utilised in future campaigns to increase public trust in healthcare professionals or more widely. Females and participants with chronic health conditions have lower levels of trust than the overall population. It has been argued that trust is an essential glue for society (Luhmann 1979; Mechanic 1998b) and that it promotes wellbeing and is 'fundamental to effective interpersonal relations and community living' (Mechanic and Meyer, 2000:657). This thesis has identified target groups where trust in healthcare professionals, individuals and institutions may be (re)built.

8.04 The operationalisation of trust

As outlined in Figure 4, there is a mutually interactive relationship between interpersonal trust (in one or more individuals) and institutional trust (in one or more systems). In addition, many social factors and concepts were found to influence trust. These findings may be used for further trust research or as a platform for further theoretical development.

In addition to operationalising trust, the findings from this thesis also informed the development of a model of dependence. By identifying a semantic distinction between trust and dependence, a new model has been developed as an area of future inquiry.

As noted in the methodology, in social science (re)interpretation often leads to the formation of a new conceptual framework (Danermark, Ekstrom et al. 1997). The use of abductive logic was a beneficial means of identifying factors affecting trust that were not identified in Luhmann's or Giddens' social theories of trust. For example, while doing the analysis for this thesis findings were identified as either fitting, or not fitting, with Giddens' and Luhmann's conceptualisations of trust. However, taking the analysis a step further and making abductive inferences revealed a distinction between what trust might be, other than trust. For example, some of the participants indicated that they have no choice but to trust doctors but their remarks may be interpreted as dependence.

The use of abductive logic was beneficial for understanding and modelling Giddens' and Luhmann's social theories of trust. The use of this logic also filled a methodological gap because the tools borrowed from critical realism have not been applied previously to research on trust in healthcare. The process of analysis and interpretation benefited from the use of abduction and retroduction. This thesis identified useful tools for future research.

8.1 Areas for future investigation

While Figure 4 (Section 7.1) above is a practical framework for future research regarding trust in healthcare, there are further lines of theoretical inquiry to be investigated in future research. The social factor 'personal experience' was an area of inquiry in the original critique driving this thesis. However, as noted earlier, the

participants trust healthcare professionals and it remains unclear if personal health experiences play a role in their trust. However, the findings did suggest that regardless of their negative health experiences, participants are still likely to trust doctors although their trust may be a form of dependence. This area is in need of further investigation.

A second area in need of further investigation relates to the origins of trust. The high level of trust participants have in doctors makes it difficult to determine if trust is initiated at an individual or institutional level. The only way in which this could be investigated would be to talk to participants who distrust healthcare professionals and determine whether their distrust in professionals affects their distrust in the healthcare system. Given the difficulty in determining the association between interpersonal and institutional trust in healthcare, future research might investigate the operationalisation of trust using other areas of applied investigation where interpersonal trust may not be so high. The quantitative results suggest that there are low levels of trust in respondents' local politicians (52.7% indicated they do not trust them very much/at all). Trust in government and political leaders may be an area of future research and may provide insight into the association between interpersonal and institutional trust.

Another area of investigation is the role of risk in trust and dependence. It is evident that risk plays a role in both trust and dependence but a person cannot be both trusting and dependent. Further research is needed to investigate the level of risk required to move an individual from having trust, to being dependent.

Future research might also investigate the association between trust in doctors and religion. The quantitative findings suggest that people who trust doctors are also more likely to trust people of another religion and religious organisations. In addition, a number of the interview participants (Roger, Ann, Cindy, and Ruth, for example) talked about their faith in healthcare practitioners. Although this research did not investigate the role of religion in trust, it is an area worthy of investigation in future research.

A final area of future investigation might be to readdress the role of certain characteristics in an individual's decision to trust a doctor who they have never met. While the survey used for this thesis identified specific characteristics that influence trust, the wording of the question did not allow for insight regarding whether certain

characteristics would influence the participants to trust more or less. Future research might use a similar question in a survey but also investigate the direction in which the characteristic influences trust.

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