

Rationality and Group Decision-Making in Practical Health Care

by

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A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Master of Arts
in
Philosophy

Waterloo, Ontario, Canada, 2006

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Author's Declaration for Electronic Submission of a Thesis

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that this thesis may be made electronically available to the public.

Signature

A handwritten signature in blue ink that reads "Courtney Heffernan". The signature is written in a cursive style with a long horizontal line extending to the right.

Abstract

In this paper, a view of non-compliance in practical healthcare is provided that identifies certain non-compliant behaviours as rational. This view of rational non-compliance is used to update a current form of doctor patient relationships with the aim of reducing non-compliance. In addition to reforming one standard doctor patient relationship model, the normative implications of understanding non-compliance as a rational form of human behaviour are described.

Acknowledgements

I would like to acknowledge the support and guidance provided to me by professors Lorraine Besser-Jones and Paul Thagard. Graduate student funding from the Social Sciences and Humanities Research Council of Canada (SSHRC) provided additional support for this research to me.

Dedication

Dedicated to my best friend, Nathan Kuznia who stays close while living so far.

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Chapter 1

Non-Compliance in Healthcare: Understanding Non-compliance as a Mode of Rational Goal Attainment

1.1 Identifying Predictors of Non-Compliant Behaviours: The Problem

In practical healthcare, non-compliance occurs when patients do not follow the treatment recommendations of their healthcare providers. The problem of non-compliance has serious negative consequences for the healthcare system and for patients who exhibit non-compliant behaviours (Fogarty, 1997). The cost of non-compliance is both financial and personal. For example, the healthcare system in the United States spends an estimated forty-six billion dollars per year as a result of medical non-compliance, while patients who are non-compliant are stuck with the burden of additional costs for treatment, unnecessary illnesses, and may ultimately face death (Wong, 2005). Determining causes of non-compliance, however, has been exceedingly difficult because there have not yet been any reliably predictive indicators of non-compliant behaviour. Approximately two hundred variables have been examined over a thirty-year period, and not one has proved to be predictive of non-compliance (Vermeire et al, 2001). Instead, non-compliance has been shown to result from many interacting variables and this complexity makes non-compliance a difficult problem to resolve (Ibid). Despite these difficulties, because non-compliance is a problem with such serious consequences, we need to keep looking for a solution.

My contention is that sorting out different types of non-compliant behaviours will point to a thread of unity among cases of what I will call rational non-compliance, and that

identifying this thread can help to reduce the rate of incidence of non-compliance in the future. What I argue has not yet been investigated in the literature on non-compliance is the relationship between compliance and value with the aim of revising doctor-patient relationships in light of rational patient values. I intend to make my case by adding to the traditional intentional/unintentional distinction in non-compliance literature, rational and irrational forms of intentional and unintentional non-compliance. Once I have established the link between rationality and non-compliance, I will subject rational intentional non-compliance to analysis to identify its ultimate cause. Understanding the underlying cause of rational intentional non-compliance can aid in updating shared decision-making model of doctor patient relationships to increase compliance in healthcare.

Improving rates of medical compliance is difficult because identifying the causes of non-compliance is too great a task and likely requires a time-consuming case-by-case analysis. Still, much work has gone into trying to predict non-compliant behaviours by examining the so-called causes of non-compliance (Bissell et al, 2004, Vermeire et al, 2001, Trostle, 1988, Davis, 1967). Non-compliance in the domain of healthcare is especially problematic because of the costs and strains that it puts on healthcare system as well as the individual costs to patients. For example, “noncompliance is commonly estimated to result in 125,000 deaths each year. Roughly one-quarter of nursing home admissions and 10 percent of admissions to acute care hospitals occur because of noncompliance” (Wong, 2005). Together, the physical consequences in combination with the estimated forty-six billion dollars in extra spending by the United States government make non-compliance a costly problem. These costs are staggering, not just in terms of dollars, but also in terms of adverse patient consequences.

However, while the aim of improving rates of compliance has been popularized in recent years it has nonetheless proven to be unsuccessful (Wong, 2005, Trostle, 1988). Furthermore, the popularization of the problem has led to a few post-modernist critiques of non-compliance that hinder progress towards a resolution.

James Trostle in 1988 and others (Mykhalovskiy, 2001) have argued that the reason the problem of non-compliance has been so difficult to resolve is because it has not been properly understood. Trostle's critique of non-compliance is based on the following view of the problem: Traditionally, non-compliance has been understood as a failing on the part of patients to follow the recommendations of their doctors. Built in to this understanding are a couple assumptions:

1. That the doctor knows best for the patient, and
2. That patients do not have values that surpass, or are on par with their value of good health.

Thus, application of the terms "compliance" and "non-compliance" have traditionally relied solely on doctor's expectations and demands, in turn denying patient autonomy. As such, there have been many contemporary critiques of non-compliance research and reduction aiming to emphasize the role of the patient and patient expectations in the healthcare setting, of which Trostle's is one. It has been argued that, "... the popularity of compliance and the uncertainty over its determinants can be understood if compliance is analyzed as an ideology that assumes and justifies physician authority" (Trostle, 1988). This post-modernist view of non-compliance is problematic, however, in that it does not tackle the actual physical

consequences of non-compliance, short of saying they do not exist. The physical consequences of non-compliance, though, have been shown to often be dire and may include fatality. In other words, non-compliance is *actually* troublesome because non-compliant behaviours can result in severe physical and financial consequences felt by both the patient and the healthcare system.

The postmodernist criticism of non-compliance is severely misguided. Non-compliance occurs in the context of healthcare and has real practical consequences, which have been detailed above. Reducing the problem of non-compliance to power differentials between individuals denies the possibility of practical concern in health and will make a resolution of what is obviously a practical problem, impossible. In short, the postmodernist critique is problematic because it denies that non-compliance is actually a problem, instead suggesting that it is an ideology. The postmodernist critique is also unethical because it makes a resolution of a serious problem impossible by denying the practical component of decisions in healthcare.

1.2 What is Non-compliance?

Non-compliance, in the field of medicine, is the occurrence of not following the recommendations of doctors and health-care providers. Thus, “compliance can be said to exist when the patient carries out his doctor’s orders with regard to the medical regimen” and conversely, does not exist when patients do not carry out their doctors orders (Davis, 1967). As such, rates of both compliance and non-compliance are determined by physician standards and recommendations.

1.3 Identifying Two Types of Non-Compliant Behaviour: Intentional and Unintentional Non-Compliance

In this section I will describe the traditional intentional/unintentional distinction in non-compliance literature. This distinction is important, but I will argue that these distinctions alone are inadequate and can be made more relevant by linking intentional and unintentional non-compliant behaviours to human rationality.

Non-compliance can be either intentional or unintentional (Wroe, 2002). Intentional non-compliance refers to the act of consciously acting against the recommendations of a healthcare provider, while unintentional non-compliance tends to result from forgetfulness. Working from the starting point of the intentional distinction of non-compliance provides the groundwork for an understanding of rational intentional non-compliance, which I will later argue can be largely overcome.

Forgetfulness tends to be a problem when medication regimens are either complex, or repetitive (Wong, 2005). With respect to oral contraception, non-compliance rates are generally quite high with women often citing forgetfulness as the primary cause of their non-compliant behaviour (Burke and Blumenthal, 2001). Forgetting to attend to oral contraception is a good example of unintentional non-compliance because it represents a repetitive medical regimen that can result in undesirable consequences; unwanted pregnancies, for example. Unintentional compliance is a large part of the overall problem of non-compliance. However, while unintentional non-compliance is a serious and important issue in practical healthcare, my focus will be on intentional non-compliance. My aim is to argue that linking intentional non-compliant behaviours to rationality will help to identify an

underlying predictor of non-compliance, which, in turn, may suggest a way of improving rates of compliance. My suggestion is that these distinctions, intentional and unintentional, cannot paint a full picture of the problem of non-compliance but rather lay the groundwork for a productive resolution. In contrast, I will show by use of empirical evidence that intentional non-compliance is strongly linked to human rationality because it is a purposive act that is goal directed and based on beliefs about treatment regimens or about spirituality, freedom, familial relations, etc. However, while some have explored the link between rationality and non-compliance the question of resolution has yet remained an open one. I will argue why the link between rationality and intentional non-compliance is important and how it illuminates a predictive cause of non-compliant behaviour, which can be tackled via emotional consensus within the framework of shared decision-making.

1.4 Non-Compliance and Human Rationality:

Intentional non-compliance occurs when patients willfully act contrary to the recommendations of their healthcare providers. There are two reasons why patients might do this: 1. if patients have reason to believe that they know better than their doctors, and 2. if patients consciously decide that taking care of their health will compromise other rational goals. Goal attainment is the subject of human rationality, and thus the latter cause of intentional non-compliance might often represent a form of reasoned decision-making. In order to make this point more clear, I will briefly outline what constitutes rationality and then provide a couple of patient examples highlighting what, I believe, is happening when patients are being *rationally* non-compliant. Additionally, I will argue that rational non-compliance occurs predominantly as a result of values that take priority over the value of wellbeing. One

assumption about value is built into this argument; there are competing values and these values will be taken as rational – hence, *rational* non-compliance. Identifying which values in particular will cause rational intentional non-compliance is a huge endeavour, however as I will show much ground can be covered by knowing that discrepancies between doctor and patient valuations can cause a specific form of non-compliance.

Human rationality has two primary aspects. One aspect of rationality is concerned with the rationality of actions and is practical rationality. The other aspect of rationality is concerned with beliefs and values, and it is termed theoretical rationality. Following Audi and Brandt, my position is that these two components work together. In other words,

Theoretical rationality aims at arriving at true belief and avoiding false belief, nonhaphazardly. Practical rationality, to which theoretical rationality is an important aid, aims at getting what one wants, in accordance with one's beliefs about what one can get and how one can get it...[Furthermore,] [w]e cannot succeed as practical beings in the absence of theoretical rationality (Ludwig, 2004, Audi, 2004).

The explanatory force of any framework of rationality is determined by how well it prescribes human behaviours that fall within these two spheres of rationality. Essentially, “the degree to which someone is rational depends on the degree to which his attitudes exhibit patterns at and across times appropriate for ideal pursuit of his theoretical and practical goals” (Audi, 2004). Conversely, irrationality occurs when one compromises the pursuit of his or her theoretical and practical goals. Thus, some examples of irrationality include “wishful thinking, believing something because you want it to be true ...arbitrary belief formation [and] believing for no good reason” (Ibid). While my aim is not to provide a model of rationality, an important characteristic of one is that it is general. Both rationality

and irrationality must be characterized within a model of rationality and for that model to have explanatory force it must be general. Generality is an advantageous criterion for models of rationality because it will apply to actions and beliefs in a variety of different, lived, contexts. One such context is the sphere of healthcare.

Decisions about medical compliance occur in a context so that decisions about medical compliance are made at the intersection of variable factors including interpersonal relations, financial considerations, etc... and these factors stem from values that are shared across different patient populations. As I will show, discrepancies between doctors' and patients' values can predict rational intentional non-compliance and play an important part in the resolution of rational intentional non-compliance. Patient values that cause non-compliant behaviours can sometimes be rational. Jenny Donovan makes a similar point, “[patients] weigh up the costs and benefits of taking particular medications as they perceive them within the contexts and constraints of their everyday lives and needs”, and in so doing may risk their health in the face of having to compromise other goals (Donovan, 1992).

Prima facie, it may seem that every instance of non-compliance is irrational because health is the most basic component of life upon which all other goal directed actions depend. Thus, it seems as though non-compliant behaviours are ultimately irrational because they potentially compromise the fulfillment of any, and all other goals. However, it may be rational not to comply with the prescriptions of a doctor if patients seeking treatment do a cost-benefit analysis of the cost of their treatment vs. the benefit of living a satisfactory life structured on their system of values. Patients who then decide to forego treatment in order

to live a more satisfying, though possibly shorter, life might be identified as being rationally non-compliant (Donovan, 1992).

In order to make this point more clearly I will provide two empirical case studies and a hypothetical example that represent the sort of rational cost-benefit analysis I am talking about.

1.5 Case Studies

1.5.1 Harold

A study into causes of non-compliance in children and adolescents following renal transplantation conducted by Georg Wolff et al noted that eighty-five patients exhibited non-compliant behaviours¹. Of those eighty-five, thirty-one percent indicated that the reason for their non-compliant behaviour was the intrusiveness of the treatment into their family lives, while fifteen percent communicated that either they, or their families, did not believe the seriousness of their disease. Wolff et al present the following case:

A 13-year-old patient [Harold] stopped taking Cyclosporin A after he became absolutely desperate about his parents' imminent separation, which he wanted to prevent; his non-compliance was like an emergency call so that he could at least have his parents together at his hospital bedside (Wolff et al, 1998).

Harold weighs the cost of his non-compliance -possible kidney failure/death - against his benefit -desire of having his family together - and intentionally acts out against his doctor's recommendations in order to attain the goal of family togetherness. Harold's practically rational action is not complying in order to get his family together, while his theoretically

rational action is the belief that becoming more sick would bring his parents together at his bedside.

1.5.2 George

Next, imagine a patient, George, who has suffered from a now cured/remitted cancer of type A in the past. George is then diagnosed with cancer of type B, which has a fatality rate of eighty-five percent. Believing that he is going to die, George may choose a shorter life without the treatment that prior experience has shown him to be very aggressive and upsetting. This type of cost-benefit analysis may take into considerations the desires of his family - for example, spouse, children, parents - and the financial costs of treatment, as well as the personal desire to avoid pain and discomfort associated with the treatment. This hypothetical, but not unrealistic, situation illustrates that medical decisions are not made in isolation and that many variables may contribute to compliance decisions. The practical goal of this hypothetical patient may be to spend the most time with loved ones, a goal more easily attained outside of a hospital or other treatment facility. The theoretical goal of this hypothetical patient is to employ the belief that a shorter life at home with family is more satisfying than a longer life in the hospital. Both of these goals are satisfied in our hypothetical circumstance, and so the prior example resembles a case where it is perfectly rational to not comply with the recommendations of one's doctor.

1.5.3 Margaret

An alternate view is that, "in a medical context, patients' perceptions of threats to their freedom or control may induce noncompliance" (Fogarty, 1997). In other words, patients

might perceive the recommendations of their doctors as threats to their freedom or personal control and so either “subtly or overtly refuse to co-operate with a medical treatment” (Ibid). Imagine a patient, Margaret, who has a family history of lung cancer, but who continues to smoke against the recommendations of her doctor. Margaret believes that it is her right to choose to smoke, and that she should be afforded that freedom but her doctor has told her that he will refuse treatment if she continues to smoke. Alison Pilnick and Tim Coleman have shown that this type of scenario does in fact occur frequently. They argue that,

Despite evidence from other areas of health care that advice is most effective when it is personalised, and despite GPs’ expressed views that a preferred way of topicalising smoking is to make links to a patient’s current medical problems, this is not generally the case in these consultations. Linking smoking to current problems commonly results in explicit resistance from patients of a kind that is rarely seen in other medical consultations (Pilnick and Coleman, 2003).

The case of Margaret is a hypothetical one based on generalized empirical data. It is not meant as a case to test intuition, but rather as a general representation of actual phenomena. The case presents a situation in which Margaret may feel that her freedom, which she values, is being threatened. Margaret may then actively decide to not comply with her doctor’s recommendations as a reaction to that threat. In this case, Margaret has decided that, at least temporarily, it is okay to undermine the value of her health to maintain her personal freedom. In this case, maintaining personal freedom is a practical goal, and Margaret’s belief that personal freedom is valuable is related to theoretical rationality. Margaret is rational in pursuing her goals by ignoring the recommendations of her doctor if she believes that so doing will compromise attaining both her theoretical and practical goals.

1.6 Case Reviews

Given a review of the previous cases of George and Margaret and Harold, it is evident that all three were rational in their intentional non-compliant behaviours toward their treatment plans. In George's case, he had decided to forego treatment in order to spend valuable time at home with his family despite knowing that his life would be shorter than it otherwise could be. George placed a higher value on his time spent with his family than his overall health, and decided that that value gave him reason enough to be non-compliant. Similarly, Harold, in an attempt to bring his family back together, acted out against his doctor intentionally – valuing their time together. In Margaret's case, she had decided to not follow a treatment recommendation in order to maintain her sense of personal freedom despite knowing that her life might be shorter than it otherwise could be. Margaret placed a higher value on her personal freedom than her overall health, and decided that that value gave her reason enough to be non-compliant. Rationality is judged relative to practical and theoretical goal attainment, and these goals are founded on patient values. When doctors' and patients' values conflict, intentional non-compliance will occur. Thus, employing a co-operative model of decision-making that allows doctors and patients to share values may help to reduce non-compliance.

I have provided three cases of intentional non-compliance to show that non-compliance can be understood as a goal directed behaviour. At the root of this behaviour are underlying patient values that conflict with the value of health, and so can be seen as predictors of rational non-compliance. In brief, different patient populations will have non-compliant

patients who make a rational decision not to comply with their doctor's recommendations, and their values will contribute to making these decisions.

One important question is brought to light by my analysis – how can jeopardizing one's health be seen as rational goal directed behaviour? In other words, some might object that patients with inconsistent goals are fundamentally irrational. In response to this question, I would respond by arguing that rationality is not concerned with consistency in goals and beliefs, but rather is concerned with determining which goals to pursue given necessary time constraints. Essentially, people always have inconsistent goals and beliefs and are necessarily unable to make these goals and beliefs consistent given time constraints. For example, I want to play for the WNBA but I also want to finish my Masters degree in philosophy and I am unable to pursue these goals simultaneously because honing my basketball skills would take many years. Thus, while both goals are relevant they are inconsistent. Rationality, instead, allows individuals to balance their time relative to their goals. Thus, it may sometimes be rational to pursue a course of action that is detrimental to one's health if the value of health is surpassed by another value at one point in time (Thagard, 2006).

I have so far shown that there is in fact a link between rationality and intentional non-compliance, but have only so far suggested why this link is relevant or important to improving rates of compliance. That is, pushing the link between rational goal-directed actions and non-compliance reveals shared patient values and reduces the magnitude of the problem by breaking general non-compliance down into a more specific form.

The connection between intentional non-compliance and rationality is *prima facie* obvious because non-compliance refers to behaviour, or action (practical rationality), that results from belief formation (theoretical rationality). Understanding non-compliance solely in terms of intentional and unintentional action is problematic because these two categories are both broad and vague. Intentional actions are purposive and unintentional actions are not. This distinction alone is insufficient for understanding the problem of non-compliance because both purposive and non-purposive actions can have many causes, and moving beyond these categories to questions of *why* patients would act purposively or non-purposively may be fruitful. Enjoining the discussion of non-compliance to an understanding of rationality will be helpful in making the categories of non-compliant behaviours more manageable by constraining the discussion to purposive *and* rational goal-directed behaviour. While this seems like a subtle adjustment, I will show that the impact is great.

1.7 Looking Ahead

The more specific rational intentional non-compliance has a predictive cause, I have argued, that is identifiable. I intend to move on to suggest a possible resolution of rational intentional non-compliance by incorporating the notion of emotional consensus for value sharing into a shared decision-making model of doctor patient relationships. This move is largely uncontroversial, as many others have suggested improved doctor patient relationships and better communication between doctor and patient as a possible solution to the problem of non-compliance. In the next section I will briefly detail the three traditional models of doctor patient relationships, and some suggestions made to reduce non-compliance within these

models. Finally, I will identify why the shared decision-making model is best suited to resolving the problem.

Chapter 2

Non-Compliance in Context

In the first chapter I identified the link between rationality and intentional non-compliance. This link points to the significance of patient values that I will argue represent a part of the resolution of one type of non-compliance. In this second chapter I will move on to discuss the context of non-compliance, as well as three existing models of doctor-patient relationships.

The type of non-compliant behaviour that I am interested in is the type that occurs within the context of healthcare be it public or private. As such, non-compliance occurs at the junction of the relationship between doctor and patient and it occurs for a number of reasons, which, it has been shown, are largely indeterminate. However, because the site of non-compliant behaviours is known – the relationship between doctor and patient – that is a reasonable place to start addressing the problem.

There are three principal forms of relationships between doctors and their patients. Two of these three forms have been employed in the health industry with varying degrees of popularity over the years, while one is just now increasing in popularity (Bissell et al, 2004). The newest model of doctor-patient relationships has been touted as being a possible solution to the problem of non-compliance as well as a response to the inadequacies of the other two models. As such, it is of interest to my project of identifying a solution to a particular form of non-compliance. My goal in this chapter is to give a brief description of each of these three forms of doctor patient relationships while arguing why I think that improvements to the

third model – the shared decision-making model - will be the most practically useful tool for responding to non-compliant patients.

2.1 Paternalism

Paternalism, in a medical context, occurs when doctors make decisions for their patients (Whitney et al, 2003, C. Charles et al, 1999, Parsons, 1951, Bloom, 1963). A paternalistic relationship between doctors and their patients is analogous to a relationship between parents and their children. In paternalistic doctor-patient relationships, the doctor “assumes the dominant role” while patients, in turn, assume a passive role accepting treatment plans prescribed by their health-care provider (C. Charles et al, 1999). Similarly, in a family setting, the parent assumes the dominant role while children, in turn; assume a passive role accepting the orders of their parents. Children who obey their parents tend to do so because they believe that their parents are acting in their best interest (Wright, 1987). Similarly, the success of paternalistic relationships is built on the notion of doctor beneficence (Parsons, 1951). So that,

Underlying...deference to professional authority [are] a [number] of assumptions. First...for most illnesses, a single best treatment existed and that physicians generally would be well versed in the most current and valid clinical thinking. Second, physicians would not only know the best treatments available, they would consistently apply this information when selecting treatments for their own patients. Third, because of their expertise and experience physicians were in the best position to evaluate tradeoffs between different treatments and to make treatment decision. Fourth, because of their professional concern for the welfare of their patients, physicians had a legitimate investment in each treatment decision (C. Charles et al, 1999).

In other words, within a paternalistic framework doctors choose a treatment plan that they believe is in the best interest of their patients and this treatment plan represents the best of many possible options. Within the paternalistic framework, the flow of information between doctors and patients is one directional, with doctors providing medical information to their patients. Furthermore, physicians are the sole deliberators, deciding which available treatment plan would be best for their patients. Paternalism is largely unpopular now and the reasons for its decline in popularity are well documented so I will not discuss them here (see Wright, 1987, C. Charles et al, 1992). Importantly however, the decline of paternalism led to the rise of the informed decision model.

2.2 Informed Decision Model

Following the decline of paternalism, patient participation in medical decision-making was encouraged as a way to regain autonomy and disambiguate patient interests (Falkum et al, 2001, Wright, 1987). A new model of doctor-patient relationships was popularized, and remains popular in North American healthcare systems. This model is the informed decision model of medical decision-making. The informed decision model relies on information sharing. That is, the doctor shares information with the patient about treatments and outcomes of treatments and the patient either agrees to, or withholds, consent to a particular treatment. So, like the paternalist model the flow of information in the informed decision model is one directional. The type of information that doctors share with their patients in this model is medical information alone (Wirtz et al, 2006). Very roughly,

In the informed model...the patient proceeds through the deliberation and decision making process on her own. The

physician's role is limited to providing medical/scientific information that will enable her to make an informed decision. Underlying this model are two assumptions. The first is that as long as patients possess current scientific information on treatment benefits and risks, they will be able to make the best decision for themselves. The second is that physicians should not have an investment in the decision-making process or in the decision made (C. Charles et al, 1999).

In other words, patients are the sole deliberators in the informed decision model, and patients alone decide on which treatment to implement (Ibid). This model is in direct contrast to paternalism where doctors deliberate on the best treatment plans, and then make a final decision for the patient about which to implement.

Informed decision, as the name suggests, relies on the transfer of information. The direction of this information transfer is from doctor to patient and consists solely in medical information (C. Charles et al, 1999). Patients become informed in the language of treatment regimens as well as scientific and medical advances in health care, and then make decisions regarding treatment from this informed standpoint. The informed decision model was developed in response to paternalism, and as a response to the limiting of patient autonomy in paternalistic relationships between doctors and their patients.

2.3 Shared Decision-Making:

The final model of doctor-patient relationships is the shared decision-making model. Within the context of a shared decision-making model, doctors and patients make decisions about treatment plans together. Four criteria are satisfied in this model:

1. At a minimum, both the physician and patient are involved in the treatment decision-making process.

2. Both the physician and patient share information with each other.
3. Both the physician and the patient take steps to participate in the decision-making process by expressing treatment preferences.
4. A treatment decision is made and both the physician and patient agree on the treatment to implement. (C. Charles et al, 1999).

Notably, the most important characteristic of this model that sets it apart from the other two is that it “provides a dynamic view of treatment decision-making by recognizing that the approach adopted at the outset of any given physician/patient encounter may change during the course of that encounter” (Ibid). Shared decision-making models allow for flexibility in treatment plans given new information (either from the patient or from the doctor) and this is desirable, particularly if patients know at the outset that the course of their treatment plans depend on the information they share. Furthermore, because the shared decision-making models of doctor-patient relationships allow for a dynamic relationship and dynamic treatment plan it is more psychologically plausible; a point that will come up again in the third chapter. This is one of the primary benefits of the shared decision-making model that sets it apart from the other two. In the shared decision-making model, the flow of information is two-way with doctors and their patients sharing relevant information. Additionally, both doctors and their patients deliberate and decide on the best treatment plan to implement. In contrast to paternalism the shared decision-making model increases patient autonomy and encourages doctor-patient dialogue, and so is, in some ways similar to the informed decision model though in important ways is different.

2.4 How does the shared decision-making model differ from the informed decision model?

The shared decision-making model, like the informed decision model, is in direct contrast to a paternalist model of doctor-patient relationships. There are, however, important differences between these two models that have, in the past, been overlooked. In fact, “these two labels [informed consent and shared decision-making] have often been used interchangeably to describe quite different types of interaction between physician and patient in treatment decision-making” (C. Charles et al, 1999). Furthermore, “Because informed consent and shared decision making can serve the same purpose—to enhance the patient’s control over his or her medical care—it is natural to ask whether they are, or should be, the same process, as some commentators have asserted” (Whitney et al, 2003). The shared decision-making model (also called the collegial model and the co-operative model of medical decision-making) is, in fact, similar to the informed consent model, though there are subtle differences of important consequence. For one, in the context of a shared decision-making relationship both the doctor and the patient share the duty of determining a treatment plan together as opposed to the patient being the sole deliberator and decision maker in the informed decision model. For two, the type of information that is shared differs. Patients who make decisions in an informed model make decisions based solely on medical information, whereas patients who make decisions in a shared decision-making model share all relevant medical and personal information (C. Charles et al, 1999).

In brief, in the informed model, doctors share information and options with patients and patients agree to a treatment plan prescribed by the doctor. Patients are given information and

can choose to comply or not. Sharing information with patients opens a dialogue between doctor and patient, but this dialogue tends to be one-directional. In other words, patients do not develop treatment plans with their doctors and they do not share information with their doctors, outside of relevant medical histories. These are the differences between the informed model and the shared decision-making model that are of important consequence. A simple chart, below, illustrates the significant differences between all three models.

	Information Exchange	Deliberation	Deciding on Treatment to Implement
Paternalism	Flow: one way Direction: doctor-patient Type: Medical Amount: Minimum legally required	Physician, either alone or with other physicians	Physicians
Informed Decision	Flow: one way Direction: Physician → patient Type: Medical Amount: All relevant for decision-making	Patient (and potential others)	Patient
Shared	Flow: Two way	Physician and	Physician and

Decision	Direction: Doctor ← → Patient Type: Medical and Personal Amount: All relevant information to reach a decision	patient (and potential others)	patient
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Table 1.1 Chart of doctor patient relationship models, adapted from C. Charles et al, 1999.

2.5 Moving towards improvement

I have provided a description of each of the three most popular forms of doctor-patient relationships. This overview is meant to motivate a discussion of how each relate to the problem of non-compliance, and assess whether one of these models is better suited than the others to help resolve the problem of non-compliance. Like others, I will argue that adopting a shared decision-making model into our healthcare systems is a viable solution to one particular type of non-compliant behaviour that I have identified as rational-intentional non-compliance (Donovan et al, 1992 C. Charles et al, 1999, Whitney et al, 2003, Bissell et al, 2004). However, I think that the shared decision-making model can be improved by understanding what some of the causes of rational-intentional non-compliance are. As a model of doctor-patient relationships, the shared decision-making model is the most useful. However, as a tool to resolve the problem of non-compliance it is substantially unequipped. This is due in large part to the complexity of the problem, and not due to any shortcomings of

the model itself. The shared decision-making model is unequipped to handle the problem of non-compliance in general, but with some adjustments will be sufficiently improved to handle the problem of rational intentional non-compliance.

To make my case, I will show why paternalism and the informed decision model of doctor-patient relationships cannot adequately resolve the problem of non-compliance, and may, in fact, contribute to the overall problem. I will further show that while adopting a shared decision-making model may represent the best form of doctor patient relations, some improvements can be made to the model aimed specifically at resolving the problem of rational intentional non-compliance. In short, I will argue that a shared decision-making model represents the best available option for resolving rational intentional non-compliance within the context of practical healthcare.

2.6 Doctor Patient Relationships and the Problem of Non-Compliance

Previous suggestions on how to reduce the problem of non-compliance have included, but have not been limited to, improving existing models of doctor-patient relationships. These improvements have been suggested, but arguments about how to make these improvements have not been made explicit (Donovan, 1992). Above, I briefly sketched out the criteria of three traditional models of doctor patient relationships: paternalism, informed decision, and shared decision-making. Furthermore, I have shown how each of these models might be used to tackle the problem of non-compliance. In the paragraphs that follow, I will show why some suggested improvements to the three traditional models of doctor patient relationships have not helped to resolve the problem of non-compliance. Typically, suggested

improvements to doctor patient relationships include increased communication and increased patient involvement (Donovan, 1992). In Jenny Donovan's words,

The key to improving rates of compliance, (although effectively doing away with the concept), is the development of active, co-operative relationships between patients and doctors. For this to be successful, doctors will need to recognise patients' decision-making abilities, to try to understand patients' needs and constraints, and to work with patients in the development of treatment regimes. For their part, patients will need to make more explicit their needs and expectations, and particularly how they reach their decisions about treatments... The solution to the waste of resources inherent in non-compliance lies not in attempting to increase patient compliance *per se*, but in the development of more open, co-operative doctor-patient relationships. (Donovan, 1992).

While Donovan's ideas represent viable choices, they are at this time vague suggestions that do not address the causes of non-compliance.

2.6.1 Paternalism and Non-Compliance

A paternalistic model of doctor patient relationships may induce non-compliant behaviours if patients feel as if their personal freedom is somehow being threatened by the relationships they have with their doctors. Built into the paternalistic model is an asymmetry in power that denies patients autonomy. As such, non-compliance occurs within the paternalistic model when patients fail to meet the recommendations of their doctors who act from a position of authority, and this alone may be enough to cause patients to rationally intentionally be non-compliant. Jeanne Fogarty makes a similar point that psychological reactance against a perceived threat to personal freedom may induce non-compliant behaviours. Fogarty says, "As long as providers seek to maintain the present distribution of power, they will continue

to run headlong into what patients perceive to be their freedom with regard to health management and the door to reactance-induced non-compliance will remain open.” (Fogarty, 1997). Furthermore, the paternalistic model cannot accommodate either of the previous suggestions to improve models of doctor patient relationships – increased communication and increased patient involvement - without resembling one of the other two models. As such, there is no point in implementing these suggestions in a paternalistic framework because it would no longer be a paternalistic framework. If the paternalistic framework cannot accommodate suggestions to combat the problem of non-compliance, then the other two models represent better options to increase patient compliance.

2.6.2 Informed Decision-Making and Non-Compliance

Unlike the paternalistic model, the informed decision model can accommodate the previous suggestions to improve models of doctor patient relationships. Communication between doctors and patients can be increased, but the only information shared will be relevant medical information. Increased communication can occur if doctors share information about new treatment options with their patients, for example. The informed decision-making model will, however, suffer from the problem of disclosure, where the information that doctors provide their patients is subject to their own biases and thus may not accurately reflect every option available to the patient, which may cause the model to collapse into a weak paternalistic model. Furthermore, doctors and patients can develop a better rapport through increased communication, but within the theoretical framework of the informed decision-making model the only information that can be communicated is medical information. This exchange does not leave open the possibility of sharing values, which is a large part of the

resolution of the problem of rational intentional non-compliance. While the informed decision model represents a more viable option than paternalism for decreasing non-compliance in practical healthcare, a better model still exists.

2.6.3 Shared Decision-Making and Non-Compliance

The shared decision-making model shares with the informed decision-making model the problem of disclosure; however it has the benefit of allowing any type of communication relevant to the treatment regimen, including patient values. Open two-way communication between doctors and their patients, as well as patient involvement are inherent components of the theoretical framework of shared decision-making in a health setting. Within the shared decision-making model any type of information that is relevant to treatment can be shared, including patient values that exist outside of a medical context. Rational intentional non-compliance occurs when doctors and patients have values and goals that conflict, and so sharing these values can work to reduce non-compliant behaviours. As such, the shared decision-making model represents the best option for implementing a resolution to the problem of rational intentional non-compliance. However, while this model is a good tool with which to address the problem of non-compliance, it can still be improved. Furthermore, there are some problems relevant to the problem of non-compliance that all three models share.

2.7 Non-Compliance within a Theoretical Framework

Suggested “improvements” to doctor patient relationships as a way to reduce non-compliant behaviour have traditionally failed for a number of reasons. The most basic

problem with the view that improving doctor patient relations will reduce non-compliance is that the idea has been presented to combat the problem of non-compliance without identifying what *causes* non-compliance; because identifying causes of non-compliance in general has proven to be very difficult. In short, the suggestion to improve doctor patient relationships fails because it is based on a superficial understanding of non-compliance. Thus, any suggested improvements to doctor-patient relationships are not able to capture the complexity of the overall problem. Instead what is needed is a revised look at the problem with the aim of improving doctor-patient relations. Furthermore, the terms of improvement are often vaguely defined. Many define improvement in terms of improved communication between doctor and patient but this is insufficient because it does not suggest anything about the form of communication, or what is meant by improved communication. Simple communication of concerns on both the part of the doctor and the part of the patient will not resolve non-compliance because non-compliance, in general, is a hugely complex problem. Additionally, problems of patient/doctor biases as well as a problem with disclosure will persist.

Two of the three principal models of doctor-patient relations - paternalism and the informed decision model - are especially plagued by these concerns, while one – the shared decision-making model - is designed in such a way as to include the criterion of open lines of communication between doctor and patient. This is a start, but it is not the full story. Others have argued that implementing a shared decision-making model in the health system will on its own reduce the degree to which patients are non-compliant, but my view is that the model can be further improved, and offer a way to make improvements to the shared decision-

making model in what follows. My project differs from others because I aim at defining exactly how to improve one doctor-patient relationship model relative to a very specific type of non-compliance.

Chapter 3

Decision Making in Practical Healthcare

3.1 Introduction

In the last chapter I provided an overview of the three principal models of doctor-patient relationships. Of these three models, I argued that one was well equipped to tackle the problem of non-compliance but could benefit from some improvements other than those already suggested. My goal in this chapter is to show that by focusing on a specific form of non-compliance, the rate of occurrence can be reduced by improving a shared decision-making model of doctor patient relations. My suggestion for improvement is to incorporate the idea of emotional consensus for value sharing. I will argue that overcoming rational intentional non-compliance happens by exchanging and sharing values. In the following paragraphs I will provide an overview of two theories of decision-making with the aim of determining how best to share and exchange values in a medical context.

Some values will be shared and others will conflict. At the most basic level, doctors and patients will share the value of health. Doctors value the health of their patients above all else, which is, of course, their job. Patients also value their health, but may have values that surpass the value of health at some point in time. As I have shown, pursuing goals that are detrimental to health can sometimes be rational. While identifying particular values that give rise to rational intentional non-compliance is beyond the scope of this paper, knowing that conflicting values between doctors and patients gives rise to rational non-compliant behaviour allows for significant progress towards a resolution. A resolution to the problem of

rational intentional non-compliance will require developing a framework that helps doctors and patients to share values. This framework is the shared decision-making model of doctor patient relations that incorporates the concept of emotional consensus.

3.2 Decision-making, the Traditional View

Decision-making has traditionally been conceived of as a largely rational process.

Underlying this analysis is the view that decision-making performs a pragmatic function. The function of decision-making has

Been stated traditionally by assuming that the [decider] desires to obtain a maximum of utility or satisfaction... [and] the individual who attempts to obtain these respective maxima is also said to act “rationally” (VonNeumann, and Morgenstern, 1957).

In short, individuals who aim to maximize utility or satisfaction are rational, in the case of economics, consumers, and in the case of practical healthcare, patients.

The above view has been popularized in economics and has also been influential in philosophy. A rough and ready account of the economic view of preferences is that the best way of understanding people’s preferences is to understand preferences as the result of rational belief formation. The economic view of decision-making is also being applied in the context of practical healthcare. Thus, analyzing the healthcare system through the lens of this economic account reveals that patient preferences, like consumer preferences, are rational and they are given. That is, patients’ behaviour will reveal what their preferences are and

these preferences, if they aim at maximizing satisfaction and utility, reflect rational choices that cannot be contested.

The economic view of decision-making, however, does not take us very far with regards to resolving the problem of rational intentional non-compliance. First, within the context of practical healthcare patients can form false beliefs about their preferences and modes of preference satisfaction that can be dangerous (Hausman, 2006). Second, the traditional economic view does not allow for negotiation between doctors and patients of patient preferences. Finally, the psychological plausibility of the economic view of preferences and decision-making has been challenged (Hausman, 2006, Thagard and Kroon, 2006). While the economic model of decision-making may explain certain behaviours in consumers, it is not well suited to explaining certain behaviours in patients. However, there exists a model of decision-making that is better suited to explaining the features of medical decision-making.

3.3 Emotional Consensus

An alternate view of decision-making that is gaining popularity in psychology is that decisions are “inherently emotional” (Thagard and Kroon, 2006, Damasio, 1994, Wagar and Thagard, 2004, Lerner and Keltner, 2000). This alternative explores the significance of emotional reactions to optional courses of actions. This alternate view is appealing because it reflects intuitions about the impact emotions have in our day-to day lives. This view suggests that decisions have a latent emotional component that is brought to light by the decider’s

reactions towards or against represented options. Wagar and Thagard give the emotional, cognitive-affective, theory of decision-making expression in the following example,

Some people like to make decisions by flipping a coin, after assigning one choice to heads and another to tails. The point is not to make the decision indicated by the flip but rather to see how they feel about the choice that the coin flip tells them to do. Flipping a coin is an effective way to find out their emotional reactions to various alternatives, indicating the emotional weight they attach to them (Wagar and Thagard, 2004, p 67).

In particular, decisions pertaining to individual health are likely to elicit highly emotional reactions because they are related to life and death concerns.

In the case of individual decisions, decision-making is the result of aligning reason with emotional reactions. Theoretical and practical rationality will work together to present optional courses of action, and emotional reactions to each option – either positive or negative – will determine the decider’s order of preferences. This is a very rough account of the decision-making process, which is, by no means, meant to be conclusive. Rather, this rough account of the individual decision making process is meant to lay the groundwork for a discussion of shared/group decisions and emotional consensus.

Emotional consensus will occur only in a shared decision-making model of doctor-patient relationships, as opposed to the other two traditional models, because the shared decision-making model is the only framework that allows for communication of information, and thus values, extending beyond the category of medical information.

Thagard and Kroon present an account of the individual decision making process that identifies a link between preferences and emotion. In their words, “preferences arise in favor

of options associated with strong positive emotions, and against options associated with strong negative emotions” (Thagard and Kroon, 2006). Every course of action is an option that is represented. Emotional responses are elicited by those representations. Emotional responses to available courses of action, in turn, form preferences in favour of one decision, against another and so on. So, while individual preferences arise when an available option is associated with either positive or negative emotion towards that option – either the individual will pursue the option represented or avoid it - decisions between two or more people require consensus on factual information as well as an emotional consensus or an approximation to emotional consensus. Thus, group decisions are much more complex than decisions made at the individual level because they involve both competing degrees of knowledge, and competing preferences. When individuals come together to make a decision their preferences are often compromised when seeking consensus.

3.4 Group Decision-making

Group decisions occur when two or more people perceive representations in context. Representations are of available options, and together the group must decide whether to pursue an option, avoid an option, or reassess their options. The healthcare system presents three contexts for decision-making to occur. In a paternalistic framework, decisions are made by physicians and so are individual decisions, in the informed decision model, decisions are made by patients and are also individual decisions, in the shared decision-making model, the decision-making process is shared by the doctor and the patient and thus represents an instance of group decision-making.

Like individual decisions, group decisions have a cognitive component and an emotional component. Unlike individual decisions, group decisions require that factual and emotional consensus is met among participants. Exchanging factual information is relatively easy and can be done through the use of forceful argumentation either by analogy or appeal to expertise, etc. Consensus, in group decisions, occurs when all involved parties share the same cognitive information as well as the same or similar emotional values. In other words, “group decision making will require attainment of a kind of emotional consensus in which members of the group share similar positive and negative feelings about different actions and goals” (Thagard and Kroon, 2006). The elements of a decision that are agreed upon from a purely cognitive standpoint are most often shared verbally, while the elements of a shared decision that have an emotional component are shared through a more subtle “emotional communication”, which can take several forms (Ibid). The forms of emotional communication are social and include emotional contagion, altruism, empathy, means-end and analogical arguments (Ibid). Emotional communication is an important step towards emotional consensus.

3.5 Types of Emotional communication

3.5.1 Empathy

One important way of communicating the emotional status of representations is through empathy. Empathy will play a large role in the shared decision-making process. On the one hand, patients can recognize their doctor’s limitations. For example, doctors are limited in their ability to prescribe treatments outside the bounds of standardized ethical

guidelines, or in their ability to understand the rationality of opting out of treatments that may benefit patients' health. On the other hand, doctors can recognize what may cause patients to willfully opt out of a treatment plan that seems promising or even one that is actually working. Empathy is best described as "putting oneself in another's shoes", however beneath this metaphor is a cognitive basis (See Carr et al, 2003). Detailing the cognitive basis of empathy is beyond the scope of this paper but an important thing to take from the literature on empathy is that empathy develops through an emotional education (Thagard, 2005). Empathy develops either as a by-product of a sound emotional education or as a part of emotional development, which lends support to the idea that decision-making is inherently emotional. So, the resolution of the problem of non-compliance is best understood within a framework of decision-making that takes into consideration the emotional component of decisions.

3.5.2 Emotional contagion

Emotional contagion is another form of emotional communication that is relevant to medical decision-making. Emotional contagion occurs when people "catch" emotions from other individuals. Emotional contagion occurs when individuals mimic the motions and facial expressions of other members of the group, this mimicry, in turn, generates a feedback that causes the emotional reactions being mimicked to result. In this sense, emotional reactions are passed on non-verbally and non-intentionally from individual to individual. (See Thagard and Kroon, 2006. Adapted from Hatfield, Cacioppo and Rapson, 1994). Emotional contagion is not purposefully communicated between individuals, but is rather an inherent feature of emotionally charged decisions. Enthusiasm, for example creates a sort of contagious

atmosphere. A criterion of emotional contagion is that it occurs in “face to face meetings between individuals” as at a meeting between a doctor and patient (Ibid).

3.6 Reviewing Models of Decision-Making in Context

To make clearer the significance of emotional consensus and value sharing, I will review one of my previous case studies from the first chapter to examine the differences between the economic model of decision-making and the cognitive affective model of decision-making. I will also illustrate the different effects of the informed decision model and the shared decision-making model. Recall the case of Harold, the thirteen-year-old patient who was refusing treatment in order to keep his parents together at his bedside.

In the cognitive-affective model of decision-making, Harold’s decision will be affected by reason -to attain the goal of spending time with his family. In turn, Harold will have a negative attitude towards treatment, creating a negative valence relative to the decision to undergo treatment, believing treatment may shorten the time that Harold’s family is all together. Harold may simultaneously have a positive attitude towards treatment because it will help prevent renal failure and death. Thus, Harold has both negative and positive valences relative to the decision to undergo treatment. Harold’s doctor provides him with all of the relevant medical information as a doctor might in the informed decision-making model, and he reasons that refusing treatment may result in some more time spent together with his parents. Harold, thus, employs a type of means-end reasoning and decides to forego treatment in spite of his positive emotional valences toward treatment

Typically, “acceptability and valence usually coincide” so that the action that is most acceptable “has the most emotional support” as in Harold’s case (Thagard and Kroon, 2006). That is, Harold decides to refuse treatment with the knowledge that it may not do him any good in the long run, and also may cause his own death and he maintains a negative valence towards his treatment option. In this analysis, the decision about whether to begin a treatment regimen is Harold’s alone and the decision is affected by Harold’s emotional responses to the treatment.

In the context of shared decision-making Harold and his doctor both have emotional valences, positive and negative, attached to the treatment plan and together they must reach an emotional consensus as well as a factual consensus. Imagine that Harold and his doctor reach a factual consensus regarding the treatment options – there is only one available option left, and struggle towards an emotional consensus or approximation to consensus. The decision to undergo a treatment that compromises one’s theoretically and practically rational goals is emotionally charged, and so too is the decision to prescribe a treatment to which patients have an aversion. Emotional valences with respect to the represented option – take Cyclosporin A - are primarily communicated non-verbally. Harold’s doctor maintains a positive emotional valence towards the treatment because he believes it is Harold’s best option for potential recovery. Harold maintains a negative emotional valence towards the treatment because he believes it will not help him to achieve the goal of family togetherness. The goal of both Harold and his doctor is to arrive at an emotional consensus. Harold’s doctor might tell Harold about another patient he had who was suffering from the same disease and who recovered fully after receiving the same treatment. Harold’s doctor may go

on to add that it would be more fun for Harold to spend time with his parent's outside of the hospital. Harold's doctor, in this instance, would be using an argument from analogy and empathy. In this scenario, it is not unreasonable to imagine that Harold would opt for the treatment – thus complying – given the information he received from his doctor that had both factual and emotional content.

In the economic model of decision-making, Harold's strategies for preferences formation are to maximize his own utility and satisfaction. His preferences are believed to result from reasoned decision-making and preferences are largely unquestioned. If opting out of his treatment plan will maximize Harold's satisfaction and utility, then his non-compliant behaviours will be regarded as rational. It is more likely to be true that accepting treatment would maximize Harold's utility and satisfaction, because he would live longer. This model provides no way for Harold and his Doctor to see value in both of Harold's two options – accept or reject treatment – because those values are linked to each of their own emotional reactions. In other words, there is a viable option for Harold that can be determined through some sort of utility calculus such that the option that undoubtedly maximizes Harold's satisfaction will be the only option he can rationally choose. In short, the problem of non-compliance will arise when doctors expect patients to accept a treatment, but rejecting the treatment maximizes the expected utility outcome for the patient.

3.7 Resolving the Problem

I have so far suggested that the shared decision-making model is a good model of doctor-patient relationships that can be improved, and I have suggested a way to improve it; by

incorporating the idea of emotional consensus, but I have not yet given any indication of how emotional consensus within the shared decision-making model will help to resolve the problem of rational intentional non-compliance. My view is that one of two things will occur when doctors and their patients reach a consensus about treatment that is both factual and emotional. Emotional consensus can help doctors and patients to share values, and two things will happen when doctors and patients share values:

1. Doctors can share the values that their patients have – the same values that may cause rational intentional non-compliance, and they can opt to no longer prescribe treatment plans that they know their patients will be averse towards, or in extreme cases, they may recommend that their patients do nothing at all.
2. Patients can share the values that their doctors have, and they will then come to recognize the importance of a treatment that they otherwise might not have seen and they will thus comply with their doctor's recommendations.

In the first case the problem of non-compliance is moot because non-compliance is judged by physician expectations, and in the first case the physician expects that patients have values that will cause them to not comply. Doctors may then recommend patients to opt in or out of treatment at their discretion, or more likely to seek out alternative treatments that do not have the same qualities towards which their patients are averse. These recommendations will be brought about through a discourse between doctors and patients that exposes patient values. It would be unethical for doctors to either withhold treatment options, or recommend inactivity on the part of patients without just cause. One benefit that the shared decision-making model has is that it allows for dynamic views of treatment options. If doctors are

forced to prescribe treatments that conflict with their intuitions, they may have to seek out alternative methods of treatment. In seeking out alternative methods of treatments, doctors would be updating their knowledge, which, in turn, may have the result of producing better doctors. Or, at a minimum would produce doctors who are open to the idea of varying methods of treatment. Someone might object by saying that it is always unethical for doctors to prescribe that their patients make no motions towards bettering their health, to which I would respond that that may or may not be true but that this is not an investigation into the ethics of treatment. I accept that this view may be contested, but the relevant point is that sharing values through emotional consensus will help to overcome rational intentional non-compliance. In the second case the problem of rational intentional non-compliance is moot because patients will be compliant if doctors are successful in communicating all relevant emotional and factual information.

3.8 Normative Implications of the Shared Decision-Making Model and Future Work

There are several different norms that develop from the shared decision-making model. Thus the question of how to make compliance more medically successful brings to light many normative implications if the answer is within the context of shared decision-making. Daniel Hausman forcibly argues that,

It is difficult to compare health states. One needs detailed information on their character and consequences and hence on the environment that so heavily determines these, and one needs to reflect long and hard on the weight one should place on different ways of valuing health states...If health economists

cannot figure out how to compare health states, lay respondents are going to have trouble, too (Hausman, 2006).

Hausman's analysis of the status of health states highlights the view that laypeople are not suitably equipped to assess the value of health states, nor of their own health preferences. As such, an important element of successful compliance will be increased patient education. A consequence of the shared decision-making model of doctor patient relationships is that health education is a necessity. It would be unethical to implement a model of medical decision-making that requires patients to make decisions that they are, for the most part, incapable of making. For this reason, increased medical education for patients ought to be a priority. Prioritizing medical education is the first step towards making the shared decision-making model of doctor patient relationships feasible as well as having better patients.

Along with the necessity for better patients is the necessity for better doctors – that is, doctors who are educated not only in medicine, but also in the significance of emotional communication. In particular, developing a strong sense of empathy will aid doctors in reaching emotional consensus with their patients. The shared decision-making model, thus, not only requires that health education is emphasized and made accessible, but also that health education is changed in significant ways. Achieving the norms presented here present a partial and preliminary resolution to the problem of rational non-compliance. Training medical personnel in emotional communication, as well as educating regular people in medical critical thinking lays the foundation for a working shared decision-making process that involves emotional consensus. The improved shared decision-making model represents the remaining part of the solution.

3.9 Conclusion

The principal goal of non-compliance research ought to be the reduction of the occurrence of non-compliant behaviours in practical healthcare. This goal has so far been largely un-met. There are a few reasons that non-compliance research has been unsuccessful to date. First and foremost, the problem has been approached from a broad understanding of non-compliance and, in general terms, non-compliance has proven to be a complex, almost unmanageable problem. Second, suggestions have been made to improve existing doctor patient relationships as a way to combat non-compliant patients. However, these suggestions have, until now, been just that – suggestions, and vague suggestions at that. Finally, actual implementation of the suggestions for improvements to existing doctor-patient models has not been undertaken.

In the first chapter, I developed a new understanding of intentional non-compliance, as being either rational or irrational, and argued that focusing on rational forms of intentional non-compliance provides insight into the idea of patient values. In the second chapter, I showed that vague suggestions to improve the traditional models of doctor patient relationships have failed because they are too vague to be implemented. I concluded the second chapter by arguing that a shared decision-making model is the best hope for implementation, and will also respond to some severe failings of the other models. In the third and final chapter, I argued for a shared decision making model that is built on the concept of emotional consensus and discussed the normative implications of this model as well as the normative implications of understanding non-compliance as rational. My view is a preliminary one, and I do not discuss implementation of the model or what implementation

would consist of. However, I have provided a discussion of the benefits of emotional consensus in decision-making as opposed to the deficiencies of the rational preference model of decision-making found in economics and philosophy.

Non-compliance is a multi-faceted problem, and a solution to resolving this problem must match these various dimensions. I have identified one type of non-compliance, and have detailed a possible way to resolve the problem within the health care system. I say possible because a discussion of implementation of the shared decision-making model must still be undertaken. There is still much work that has to go in to resolving non-compliance, but up until this point possible solutions have been offered to resolve the *general* problem of non-compliance. Typically these suggestions are offered as a panacea to non-compliant behaviours. Unfortunately, non-compliance, in general, results from many interacting variables and resolving non-compliance, in general, is difficult if not impossible. Non-compliance, I have argued, can be broken down into manageable forms. One of these forms is rational intentional non-compliance. Most non-compliant behaviours that are rational and intentional are caused by certain patient values. The values that contribute to non-compliant behaviour override patients' value of health, causing doctors and patients to come into conflict with regards to treatment expectations. Sharing values by way of emotional consensus will help to rid the doctor-patient relationship of this conflict, and in so-doing, rid the doctor-patient relationship of rational intentional non-compliance.

¹ These 85 patients represent one-third of the renal transplant patients at the hospital, while the compliance rates of the other two-thirds was not assessed.

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