2.1 DIMENSIONS OF TRUST IN HEALTH CARE

Trust has been defined by five key dimensions by Hall et al, in their review.[8] These dimensions are fidelity, honesty, competence, confidentiality and global trust. Fidelity is the dimension where the provider takes genuine interest in the patient, does all that is possible to the best of his/her ability to help the patients and does not exploit the vulnerability of the patient. Caring, respect, advocacy and avoiding conflicts of interest are the various subdomains in this dimension of trust.

Competence, the next dimension of trust, means avoiding mistakes and working towards achieving optimal health for the patient. Often technical competence is not assessed by the patients due to the inherent difference in the level of knowledge between the doctors and the patient. But communication competence is usually assessed. Communication skills which relate to competent medical decisions such as taking a detailed history, making the patient feel comfortable enough to reveal sensitive personal information etc. are important for building trust. Also important are making eye contact, being polite to the patient, expressing genuine concern by appropriate body language etc. which can influence trust. Honesty as a dimension of trust can have two sides to it. On one hand,
honesty in admitting to mistakes, transparency in health care decision making and full disclosure of all health related conditions to the patient can help in increasing trust. But one concern is that honesty in the form of disclosing lack of knowledge, or disclosing a conflict of interest etc. may lead to erosion of trust. *Confidentiality* is another important expectation and dimension of trust. But there is a lot of scope to explore confidentiality, extent of confidentiality expected by patients and specific conditions where confidentiality is emphasized by patients. Several authors have studied confidentiality as a dimension of trust and have come out with inconclusive results. Expectation of confidentiality may depend largely on type of illness, severity of illness and socio-cultural characteristics of the patients. Therefore confidentiality as a dimension of trust needs greater research especially in the developing country settings. Finally *global trust* is the more holistic dimension of trust which cannot be captured by any of the other dimensions. It can also be viewed as the basket term to refer to dimensions that contribute to trust.

Mechanic and Meyer in their paper argue that though patients can differentiate between the behavioral and technical dimensions of trust, it is not easy for them to point out what makes them trust the doctors. They do not know what exact dimension of trust is more important than others.[29] This may be particularly true in the setting of developing countries where the level of awareness about health care and participation in health care is significantly lesser than the developed settings. The trust which is defined by the above mentioned dimensions, can be increased or decreased by certain factors.
2.2 CHARACTERISTICS OF TRUST IN HEALTH CARE

2.2.1 Confidence – faith – trust and distrust

Trust is a set of expectations that the patient has from the health system. It is a part of a continuum of confidence-trust and faith. Confidence is an objective assessment of the health care provider’s performance based on past experience or based on word of mouth from other members of the community. Thus trust-as-confidence is an objective assessment which is done consciously by the patients. Faith is a belief in the doctor which stems from an emotional plane. Some scholars define faith as an irrational belief not based on objective assessments. Trust-as-faith is blind.[9] Another aspect of trust that needs to be understood is that trust and distrust are not two sides of the same coin. In fact, a patient could have both trust and distrust at the same time. This theoretical concept was first described by Lewicki et al. They propose a matrix in which the four quadrants represent low trust – low distrust, low trust – high distrust, high trust – high distrust and high trust – low distrust. Lewicki’s trust-distrust matrix is shown in Figure 2.1. The low trust – low distrust segment is usually the one in which most human relationship start. Then they slowly progress to one of the other three segments based on experiences. In health care the most desirable is the fourth quadrant with high trust and low distrust. But most health care trust is in the high trust – high distrust quadrant, which is also referred to as the ‘trust but verify’ quadrant. Patients place a high trust on the doctor, but they prefer to verify by means of second opinions. [10]
Figure 2.1: Lewicki’s Trust Matrix showing the four quadrants of trust and distrust combinations

There is strong evidence from qualitative explorations that trust in physicians is a state and not a trait. Respondents in qualitative studies were able to recall specific incidents and anecdotes which increased or reduced their trust in the physician. Also there was little correlation between trust in a particular physician and general trust in people and general trust in health system. This again indicates that trust is specific to individuals and situations. Trust was also found to be different in different physicians for
the same patient. Thus trust is largely a ‘state’ which depends on the experiences. It is dynamic and keeps changing with experiences.[11,12] This trust which is characterized here is of great value in all human relationships especially in health care relations.

2.2.2 Trust as an Intrinsic value in Health Care

Trust has both instrumental and inherent value. Based on this, trust is further classified as strategic trust which is of instrumental value and moralistic or altruistic trust which is more of intrinsic value. In the strategic sense trust can be seen as intentionally exposing one’s vulnerability and taking extra risk of being exploited by the other person so that one benefits out of the relationship. In the altruistic sense, trust can be seen as a belief in the others for larger good as a gift to the community. Therefore strategic trust is a calculated cognitive phenomenon whereas altruistic trust is an affective emotional phenomenon.[13] It is a matter of some concern that implicit trust of the patient on the doctor will discourage them from being autonomous agents participating in their own care. Blind trust in fact, can be dangerous as it can potentially lead to exploitation and medical errors. Therefore ‘trust but verify’ is claimed to be the most appropriate form of trust in health care. This delicate relationship between trust and autonomy is well explained by Lee et al. Promoting trust does not mean making patients dependent on their doctors and non-autonomous. They propose that trust and autonomy are not the two sides of a spectrum and both trust and autonomy can be effectively promoted in order to achieve better health outcomes.[14]
Zaner and colleagues have a slightly different perspective of trust in health care. According to them trust in health care is not optional. They say that trust is an integral and implicit component of all health care interactions.[15] They propose that fiduciary duties be assigned to doctors to protect this inherent trust in the doctor patient relationship.[16] The instrumental value of trust in health care is discussed in greater detail in a later paragraph. Trust which is of such great value in health care can be either interpersonal or instrumental.

2.2.3 Interpersonal and Institutional Trust

Trust in health care can be broadly viewed from two important perspectives: trust in doctors, nurses and other providers which is interpersonal trust and trust in the system which is social trust or institutional trust. These two types of trust are closely related to each other. One might strongly influence the other. Interpersonal trust in the doctor may give a positive trusting attitude towards the system or institution that the doctor is affiliated to and vice versa.[8] In developed countries there have been reports that the general level of trust of the public in the health system is declining. Trust in the public health system in the US has been shown to have declined over the past 30 years.[17,18] Similarly there has been reported reduction in trust levels on the National Health System (NHS) in the UK.[19] But despite such overall erosion of trust in the system, there still remains a great amount of trust in doctors. In the developed countries the emergence of managed care and third party insurance payers has significantly led to doubts among patients about the loyalties of the system. There have been studies to look at how payment mechanisms influence trust.[20] In Kao’s Patient’s Trust Scale, there are specific items on whether the patients think that their doctors are influenced by the limitations placed by the insurer on doing what is best for the patients.[20] Zheng and colleagues have developed a scale to measure the level of public trust on insurers.[21]
Given the extreme complexity and fragmentation of the modern social structure, institutional trust plays a crucial role as it involves a large number of social interactions at a time. Thus institutional trust acts as an assurance for inter-personal trust in the modern society.[22] For health systems to function effectively there is a need for trusting relationships within the system. A conceptual model of increased trust between health care workers in South Africa, did demonstrate higher effectiveness of the health system.[23] Professional and ethical codes within the health systems help to strengthen the trusting relationships between patients and the system.[17] Funding mechanism within the system strongly influences public trust. Appropriate funding allocation, rationing, solidarity in fund distribution for health care and procedural justice and fairness in allocation have all shown to enhance public trust in health care.[24] The health system is a significant part of the social fabric of a community. Therefore system trust is essential as an intrinsic as well as instrumental value. Institutional trust in health system can also be viewed as a source of social capital.

Van der Schee and colleagues present an interesting conceptual framework to explain how the interpersonal and institutional trust is interrelated. Strong health care systems provide good quality care and provide institutional entitlements or guarantees. These are delivered by the providers in the system. The patients come into contact with the providers and their interpersonal trust builds. This interpersonal trust is influenced by the system’s entitlements and quality of care. Moreover the patients also develop trust about the system through media image and network communications.[25] Whether the trust is interpersonal or institutional, it can have two dimensions to it based on whether it is based on experiences or whether it is naïve.
2.2.4 Expectant and Experiential Trust

Expectant trust is the trust that the patient has on the doctor during the first clinical interaction, whereas experiential trust builds over time as a result of positive interactions with the doctor. [26] If the patients have negative experiences with the doctor, especially in the aspects of communication, it leads to reduction in trust. [27] Several studies have reported that provision of full information about the illness and active engagement of the patient in clinical decision making lead to increased trust. [28] These are forms of experiential trust. Expectant trust largely depends on general trusting tendencies of the patients, second hand information from other patients and certain indicators of trustworthiness that the patient perceives before the clinical interaction. For example, the patient may develop a trusting attitude by seeing a huge crowd waiting outside the clinic to see the doctor when compared to an empty waiting room. The trust that has been discussed as the optimistic acceptance of vulnerability of the patient, is an abstract construct and hence can be understood only based on certain dimensions which contribute it.

2.3 FACTORS INFLUENCING TRUST IN HEALTH CARE

Patient characteristics, doctor characteristics and determinants which are related to the health system, all have an influence on trust in health care.
2.3.1 Patient Characteristics which influence Trust in Health Care

In some studies age of the patient has been shown to have an influence on trust. Older the age, greater the trust in the doctor.[8] Trust builds iteratively. Therefore longer the duration of a relationship, greater is the trust.[20] This is more relevant in the settings where patients have long term relationships with providers, such as the National Health System of the UK. But in settings like the public health system in developing countries long term interpersonal relationships are rare because of rotation of physicians within the system and hence this association between age of the patient and trust is less likely.

A study from Thailand showed that among women seeking obstetric care, their socioeconomic status had a big bearing on the trust. Women from middle class social background who had a high perception of risk of obstetric outcomes preferred private obstetricians even if they had to pay more.[30] From the definition of trust it is intuitive that situations which lead to increased vulnerability can lead to higher trust. Gender differentials and socioeconomic status are factors which lead to vulnerability and hence trust.

Race plays an important role in determining trust. In several studies African Americans have been shown to have lower levels of trust in health care compared to the Caucasians.[31] In yet another interesting analysis researcher found that religious affiliation and level of religious activity positively correlated with trust. Those who were very active religiously tend to have higher trust in physician and in health care in general. One explanation for this association could be that religious activity has an influence on general trust of the individual which in turn influences the trust in physicians and health
care.[32] In a study of correlates of trust among cardiac patients it was seen that lesser education, and greater perceived control over their illness led to greater patient trust on doctors.[33] Patients with certain illnesses such as congestive heart failure and depression reported greater levels of trust.[34]

2.3.2 Physician Characteristics which influence Trust in Health Care

Some important physician characteristics such as their attitudes, approach and behavior have an important bearing on trust. In an interesting study of association between patient-centered behavior of primary care physicians and the trust of the patients, researchers recorded the interactions between standardized patients and primary care physicians and also noted the level of trust that patients attending these physicians placed on them. On multivariate analysis of factors influencing the trust certain patient centered behaviors such as exploring patients’ disease and illness experience and greater duration of the visit were positively correlated with trust. Greatest trust was reported by patients visiting family physicians.[34]

In a study of ambulatory care patient experiences Keating et al, showed that experiences related to the interpersonal aspect of physician behavior such as giving enough time to the patient to explain the reason for the visit, providing answers to patient’s questions in an understandable manner, taking enough time to answer patient’s questions, enquiring about the effect of family situation on health, involving the patients in decision making and providing as much medical information as the patient wants were determinants of both trust in physician as well as satisfaction.[27] The physician behavior is a direct reflection on the genuine intentions and the covenant of care between the physician and patient. In rural Cambodia trust in the physician was rated as the second
most important reason to choose a private provider whereas it was the fifth reason to choose a public care provider. Whereas public providers were trusted for their skills, abilities and effective referral system, the private providers were trusted for friendliness, easy approachability and accessibility and being careful and thorough.[35]

In a study carried out in a managed care setting in the US, it was shown that low patient trust was associated with complaints that a requested service was not provided by the doctor. It was also seen that level of trust was positively correlated with satisfaction with care, reporting of positive outcome of treatment and desire to follow the doctor’s advice.[36] In yet another interesting study the association of the doctor’s attire with patient’s trust was studied. It was observed that patients preferred the professional attire with white coat, followed by scrub suits, business dress and finally casual clothes. They felt that they could talk more openly about their social, sexual and psychological problem with a doctor in professional attire. The study further reported that the respondents rated the dress code to be more important for female doctors compared to male doctors.[37] Physician’s perceived technical competence, honesty and patient centered behavior, were all strongly correlated with patients’ trust in doctors.[38] Based on a study from community based clinical practices in the US, it was found that certain patient friendly behaviors were associated with increased physician trust. Being comforting and caring, demonstrating competency, encouraging and answering questions and explaining were associated with trust. The behaviors least important for trust were gentleness during the examination, discussing options/asking opinions, looking in the eye, and treating as an equal.[39]
2.3.3 Health System Characteristics which influence Trust in Health Care

A study from Sri Lanka showed that treatment seeking behavior depended on public trust which is determined by the public perception of functioning of the health system. In Sri Lanka despite the strong public health system, poor quality of interpersonal relationships prevents even the poor from accessing the system. Thus deteriorating interpersonal relationships between the doctors and patients could act as potential threats to universal health access even in robust public health systems.[40]

Transparency is a very important determinant of trust. The World Health Organization guidance document on Pandemic Influenza Preparedness and Response emphasizes the need for commitment to transparency and credible actions. Public perceptions will play an important role in trust building. Trust is very important in times of pandemics in order to curtail the spread of the disease.[41]

Reporting of unmet needs for health care and delayed care is higher among patients who have lower levels of fiduciary trust in the physician. This negative association seems to be more pronounced among the poor, racial minorities and those who are not covered by a health insurance scheme. This association between trust and unmet and delayed healthcare could be reciprocal. Poor trust could lead to delayed or no access to health care and poor access to health care could lead to poor trust.[42] This again is an effect of the insecurity imparted by the vulnerable condition. In certain communities gatekeeping of health care is done as a step to reduce health care cost by streamlining referrals, reducing unnecessary investigations and procedures. In a study, it was shown that communities which had greater gatekeeping activity had lesser trust in health care compared to communities which had lesser gatekeeping.[43] Continuity of
care was found to be significantly associated with patients’ trust in their physician. This was reported in a study from two countries, the UK and the USA.[44] Patients who had a regular physician, to whom they could go, had a higher level of trust compared to those who did not. In another study, practice climate, defined as supportive interactions between practitioners and staff in the clinics, led to significantly higher trust among the patients. The authors substantiate that supportive and interactive positive relationship in the practice environment leads to reduction in the power differential between the doctor and patient thus leading to higher levels of trust.[45]

In a study of trust in physicians across various communities in the USA, it was seen that the level of trust varied across the communities and the variation was explained by the difference in social capital in these communities. Social capital ensures reciprocity and general trust in people. This leads to greater levels of trust in physician. This social capital of the community is a significant determinant of trust in health care in that community.[46]

In a study it was shown that the trust that patients had on their physicians depended on having a choice of physicians, having a long term relationship with the physician and higher levels of trust in the managed care organization. Patients believed that paying the physician per test or procedure rather than a fixed monthly amount would not adversely affect their care. They also believed that paying the physicians more for ordering fewer tests would make the quality of their care worse. They were also willing to accept higher co-payments for obtaining necessary tests.[20] A cross sectional household survey from Washington DC showed that households where the burden of health care expenditure is high, there is lower trust in the physician, and also negative assessment of the quality of care. Thus rising health care cost is an important determinant of patient trust even in developed setting.[47]
Patients who believe that their doctors receive gifts from pharmaceutical industry had lower levels of trust in their doctors compared to those who did not believe so. These patients also reported a high level of health system distrust. The patients who believed that almost all doctors receive some gift from pharmaceutical industry reported even higher levels of distrust in health system.[48]

Thus interventions could be devised to appropriately address the physician, patient and health system characteristics which in turn can influence trust in health care. For any meaningful interventions for influencing trust in health care, there is a need for effective measurement of the construct.
2.4 MEASUREMENT OF TRUST IN HEALTH CARE

2.4.1 Psychometric scales for the measurement of trust

Trust has been described as an ambiguous and abstract construct, difficult to measure. Only in the past 40 years social scientists have started measuring trust in the health system. Most of the scales that have been developed to measure trust have emerged from the developed world. There are no attempts to understand trust in health care and measure trust in the developing countries.[49]

Six tools to measure trust in the health care setting have been described in a review by Goudge and Gilson. These are Trust in Primary Care Physician Scale by Hall et al (2002), Trust in Physician Scale by Anderson and Dedrick (1990), Physician Trust Scale by Kao et al (1998), Medical Professions Trust Scale by Hall et al (2002), Health Insurance Organization Trust Scale by Zheng et al (2002) and Whole Health System Trust Scale by Straten et al (2002). Out of these six tools, five have been developed in the United States and one tool by Straten et al in Netherlands. They measure different aspects of trust. Three of these tools have been developed in the Wake Forest University, North Carolina.[49]

The Wake Forest University trust scales use combinations of positive and negative responses about trust in the health system. The words trust, confidence, faith etc. have been limited as much as possible to avoid biases. While confidentiality features in the insurer trust scale, it is not part of the physician trust scale. Some contents are common among all the tools.[49] Egede and Ellis developed a Multidimensional Trust in
Health Care System Scale which simultaneously measures trust in physician, trust in institutions and trust in insurer or payer. This 17 item scale has good psychometric properties and also correlated well with patient centered care, patient satisfaction, adherence to medication and social support.[50] Dugan, Trachtenberg and Hall developed an abridged trust scale which simultaneously measures trust in physician, health insurer and the medical profession. It has five items in each subscale. The scale has good psychometric properties.[51] Goold et al developed a scale to measure trust in the health insurer. This tool is a patient centered measure of trust in insurers. Administrative competence, clinical competence, advocacy, beneficence, fairness, honesty and openness are some of the domains covered in this trust scale.[52] A unique scale was developed to measure distrust in health care. This scale has ten items four measuring honesty, two measuring confidentiality, and the other two domains being fidelity and competence. This scale also has good psychometric properties.[53] The Primary Care Assessment Survey (PCAS) by Safran et al, is an excellent tool covering seven important domains of health care. One of the domains covered is trust. It has a very high reliability of all the seven domains.[54] Leisen and Hyman developed the Patient Trust in their Physician Scale in 2001. It comprises of two overarching dimensions of trust namely technical competence and benevolence. Evaluating problems, providing appropriate and effective treatment, predisposing factors, and structural/staffing factors are components of the competence domain and understanding the patient’s individual experiences, expressing caring, communicating clearly and completely, building partnership, demonstrating honesty, and keeping information confidential are components of the benevolence domain.[55] The various scales to measure trust and their psychometric properties are shown in Table 2.1

Having seen the various scales to measure trust in health care, it is important to understand why we need interventions to improve trust? Why should trust be built and nurtured? What are the benefits of a trusting consumer – health system relationship?
Table 2.1: Psychometric properties of scales to measure trust in health care

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the Scale</th>
<th>Authors</th>
<th>Domains</th>
<th>No. of items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trust in Primary Care Physician Scale</td>
<td>Hall et al (2002)</td>
<td>Fidelity, Honesty, Competence, Global</td>
<td>10</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wake Forest University Team</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>Trust in Physician Scale</td>
<td>Anderson and Dedrick (1990)</td>
<td>Fidelity, Competence, Honesty, Confidentiality, Global</td>
<td>11</td>
<td>0.85</td>
</tr>
<tr>
<td>3</td>
<td>Patient Trust Scale</td>
<td>Kao, Green, Zaslavsky et al, (1998)</td>
<td>Fidelity, Competence, Confidentiality, Global</td>
<td>10</td>
<td>0.93</td>
</tr>
<tr>
<td>4</td>
<td>Medical Professions Trust Scale</td>
<td>Hall et al (2002)</td>
<td>Fidelity, Competence, Confidentiality, Global</td>
<td>11</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wake Forest University Team</td>
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<tr>
<td>6</td>
<td>Whole Health System Trust Scale</td>
<td>Straten et al (2002)</td>
<td>Patient focus of providers, policies, provider’s competence, quality of care, information supply and communication, quality of cooperation</td>
<td>36</td>
<td>0.74-0.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Netherlands</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Multidimensional Trust in Health Care System Scale</td>
<td>Egede and Ellis (2008)</td>
<td>Trust in providers, trust in payers and trust in institutions</td>
<td>17</td>
<td>0.89</td>
</tr>
<tr>
<td>S.No.</td>
<td>Name of the Scale</td>
<td>Authors</td>
<td>Domains</td>
<td>No. of items</td>
<td>Cronbach’s Alpha</td>
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<tr>
<td>8</td>
<td>Abbreviated Measure of Patient trust in Physician, Insurer and medical profession.</td>
<td>Dugan, Trachtenberg, Hall (2005)</td>
<td>Trust in physician, trust in insurer and trust in medical profession.</td>
<td>15 (5 questions in each domain)</td>
<td>0.87, 0.84, 0.77</td>
</tr>
<tr>
<td>9</td>
<td>Measure of Trust in Health Insurers</td>
<td>Goold et al (2005)</td>
<td>Organizational trust, doctor patient trust, perceived vulnerability, satisfaction with care</td>
<td>13</td>
<td>0.95</td>
</tr>
<tr>
<td>10</td>
<td>Health Care System Distrust Scale</td>
<td>Rose et al (2004)</td>
<td>Fidelity, competence, confidentiality, honesty / informed consent</td>
<td>10</td>
<td>0.75</td>
</tr>
</tbody>
</table>
2.5 IMPORTANCE OF TRUST IN HEALTH CARE

It is implicit that trust is of great intrinsic value in health care. But there are several instrumental benefits involved in the trust as well.

2.5.1 Trust and treatment adherence

Studies have shown that higher trust in health care translates to better adherence to treatment. Thom et al in their elegant study on trust in physicians showed that 62% of patients who are in the highest quartile of trust in their physician reported complete drug adherence whereas only 14% in the lowest quartile of trust did so.[11] Similarly patients who had high trust in their physicians were more likely to follow good self-management behaviors including smoking cessation and safe sexual practices.[54] Trachtenberg et al showed that higher levels of trust in doctor was strongly associated with patients’ active involvement in their treatment as indicated by wanting to be more in control over their treatment and seeking health care for most problems.[56] In a cross sectional study done in Michigan it was found that patients with higher out of pocket expenses were more likely to stop their medications because of the expenses when physician trust was low. Thus trusting patient physician relationship may reduce the impact of high cost on medication adherence.[57]
2.5.2 Trust and continuity of treatment

It was also found in the study by Thom et al that patients in the highest quartile of trust had a higher chance of following up and continuing care with the same physician compared to those in the lowest quartile.[58]

2.5.3 Trust and self-efficacy

Strong trusting relationship between the doctor and patient leads to patients’ perception that the treatment proposed by their doctor will have good outcomes. Therefore they have positive expectations from the treatment and hence adherence is greater. Strong patient physician relationships promote self-efficacy among the patients.[59] There are many mechanisms of how a trusting relationship improves self-efficacy. Mastery over the behavior in trusting settings leads to positive reinforcement. A trusted physician’s encouragement and motivation plays an important role in promoting self-efficacy. Moreover lower levels of anxiety and self-doubt that accompanies the confidence in a trusted physician can also promote self-efficacy. Using rigorous structural equation models Lee et al showed that patients who trusted their physicians had better self-efficacy and positive outcome expectations which in turn led to better self-rated health and objective outcomes.[60] In a study of diabetic patients at Wake Forest University, it was seen that higher trust of the patients on the physician led to less difficulties to following self-management behaviors.[61]
2.5.4 Trust and disclosure of sensitive information

In the treatment of certain diseases there is a need to collect and record certain sensitive information such as sexual behaviors from patients. A trusting relationship between the doctor and patient helps the patient to open up and disclose sensitive information. This in turn leads to appropriate treatment decisions.[11]

2.5.5 Trust and avoiding unnecessary investigations and referral

Higher trust may lead to reduced need for second opinion about treatment decisions and reduced need for unnecessary tests and investigations. This may reduce the unnecessary cost of health care.[11]

2.5.6 Trust and self-rated health status

In a study it was shown that higher trust led to significantly higher improvement in self-reported health status two weeks after a visit to the doctor after adjusting for multiple potential confounders such as patient characteristics, physician characteristics and the characteristics of the medical visit.[36] A population based study in Sweden showed that low level of trust in health care system and low levels of general trust led to poor self-rated health. This was attributed to lower treatment seeking behavior during illness which was associated with low levels of trust.[62] Thus trust is not only of
intrinsic value but is also instrumental in these aspects. Therefore measuring and promoting trust is an important exercise in its own merit.

2.5.7 Implications of lack of trust

Studies of trust in physicians among African Americans in the USA have shown that low levels of trust lead to lower utilization of health care services, preventive services and surgical treatments.[63] In a study it was shown that trust in the physician was the strongest predictor for the initiation of anti-retroviral therapy among African Americans and Hispanic Americans living with HIV/AIDS.[64] One study showed that lack of trust in the health system was associated with significant psychological distress.[65]

Thus trust is of great instrumental value in health care because it can lead to the above mentioned clinical outcomes. There are two closely related but different aspects of the clinical interaction which influence outcomes, namely trust and satisfaction in care.

2.6 TRUST AND SATISFACTION IN HEALTH CARE

Patient trust is related to satisfaction but it is different from it. While satisfaction is looking back on the outcome of a doctor patient relationship, trust is a forward looking expectation of the experience. Satisfaction is the patient’s assessment of the performance of the physician, whereas trust refers to the relationship that develops
between the patients and the physician. Trust is based on the patients’ perceptions of the motives and intentions of the physician. Satisfaction is objective and devoid of an emotional component, but trust has a strong emotional aspect to it. Trust is seen as a long term commitment and good faith between the doctor and patient whereas satisfaction is the assessment of the performance of the doctor in the interaction. Patients who do not establish a good trusting relationship with a doctor may still be fully satisfied with particular clinical encounters.

Some studies have shown that patient satisfaction is associated with adherence to treatment, regular follow up and better outcomes. But in the study by Thom et al it was clear that in the multivariate model trust was more strongly associated with outcomes compared to satisfaction.[11,58] Balkrishnan et al also showed that trust is a more significant predictor of quality of a doctor’s care. In multivariate models, patients who changed their physicians had greater trust in the current physician compared to previous physicians and this association was significant even after adjusting for satisfaction levels in the previous clinical encounters.[66] The earlier paragraphs discussed the instrumental values of trust in health care, which emphasize the need to build and nurture trust. However, can trust be built?

2.7 BUILDING TRUST IN HEALTH CARE

Three studies have looked at the impact of trust building interventions on the patients’ trust in their doctors. Thom et al gave training to doctors on certain behaviors which were associated with increased patient trust. The training focused on clearly addressing the patients’ concerns, thorough history taking and physical examination, involving the patient in decision making, addressing the doubts and questions that the
patients have and arranging for follow-up care. There was only a 2 point difference in the post-trial physician trust scores between the intervention and control groups. There was no statistically significant difference between the two groups.[67]

Hall et al studied whether disclosure of the information about the incentives that doctor received for complying with managed care protocols increased the trust of patients on their doctors. He showed that there was a marginal 1.4% increase in patient trust after the disclosure of the incentives. It was further reported that the increase was only among those who had a baseline high level of trust and not among those who had low trust at baseline. The authors also report that the disclosure had a greater impact on trust in the insurer rather than trust in the doctor.[68]

Thompson et al studied the impact of three interventions compared to control on the trust of the patients on doctors. When the patients enrolled into a HMO, three different types of induction visits were offered. The first was a physician-only visit, the second was a physician visit followed by a visit by a health educator and the last one was group visit of eight new members led by a physician and a health educator. In the group visit the trust on physician was higher compared to control, but this was not seen in the other two groups. Overall trust in health plan was higher in the ‘physician + health educator’ and the group visit groups.[69] A systematic review of interventions to build and promote trust in physicians and health plan revealed that there is insufficient evidence to show that there is any intervention that can promote trust in doctors.[70]

The futility of the exercises to build trust implies that the understanding of trust and factors influencing it is incomplete. All the studies of trust that have been discussed till this point have been reported in the developed country settings such as the
United States of America, United Kingdom, Australia etc. There is very little understanding if any on trust in health care in developing country settings.

2.8 TRUST IN HEALTH CARE IN DEVELOPING COUNTRIES

There are several unique features of the health care systems in developing countries.

- Many developing countries have strong inequities in health indicators, health status, health access and social determinants of health.[71]
- Universal health access is not available in many of these countries. The models of health care in Brazil and Thailand which have made great strides towards achievement of universal health access are interesting, but many countries do not have such robust health systems.
- Budget allocation to health sector is very low in many developing countries, thus leading to higher private expenditure in health care.
- The poorly organized public health sector in many developing countries has led to the burgeoning of the private sector, which in some situations is profit driven, inequitable and unregulated.
- Quality of health care leaves much to be desired in many developing countries.

Trust in health care in this setting has not been explored in great depth so far. A recent study from Pune, a metropolitan city from western part of India, has explored trust in health care in the hospital setting. They reported that about 60% of the patients had high level of trust in their physician and the remaining 40% had some amount of reservations about their physicians. Further they reported that men had higher trust in physicians compared to women, but no other factors were significantly associated with trust. Physician-patient concordance led to higher levels of trust. Further higher trust led to
better patient enablement for self-management.[71,72] One of the major limitations of this study is that it used the Trust in Physician Scale developed in 1990 by Anderson and Dedrick, which was validated in the United States. The dimensions and determinants of trust in the setting of developing countries are likely to be different from that in the US. The dimensional structure of the responses were not assessed or reported in this study. This points to a need for a thorough understanding of trust dynamics in these health care settings. This being one side of the problem, the other side is that even in settings where there is some data on the dimensions and determinants of trust, trust in health care seems to be a highly evolving and dynamic construct.

2.9 EVOLVING PATTERNS OF TRUST IN HEALTH CARE

2.9.1 The changing socio political environment in healthcare

There has been a rapid growth in technology in the medical field starting from the late 20th century. This has resulted in major advances in the understanding of disease processes, and in the diagnosis, treatment and course of diseases [73]. The evidence-based medicine movement which evolved over the past four decades is accepted as the *sine qua non* of good quality medical care [74]. Alongside this development is the growth of business models in healthcare. Corporatisation of medical care has given an impetus to the advancement of technology in medicine in India [75]. Healthcare of international standards has reached remote corners of the country. Yet, large segments of the population still do not have access to even basic healthcare. There has been much debate on the health disparities in the country [76]. National task forces have been set up on how to make access to healthcare universal [77]. The development of the human rights movement post World War II, and the more recent discourse on realizing health as a
human right, has significantly contributed to the understanding of these health inequities and the need for universal healthcare access in countries like India. At the same time, the era of information technology, heralded by the development of the Internet, and communication technologies like cellular phone services, has significantly shrunk the world. Communities are being defined differently, with less personal and more virtual interactions. People seeking healthcare may also visit the Internet for information. These developments have affected people’s trust in healthcare in various ways. It has been suggested that developments in the sociopolitical scenario of health care have affected people’s trust in healthcare providers[78]. Based on this there are four types of trust in health care, in addition to the “blind trust” which has been implied in the historical descriptions of the physician-patient relationships.[79] These are: calculated trust, trust but with verification, skeptical trust and impersonal trust. These describe distinct approaches, but with some overlapping features.

2.9.2 Autonomy and patient participation in treatment – “calculated trust”

From historical times, the doctor-patient relationship has been given a special status and several measures such as various codes of conduct from the Hippocratic Oath to modern biomedical codes of ethics, have been adopted to protect its sanctity. Trust in the physician and healthcare was unquestioned and implicit [79], based on an expectation that the physician followed professional ethics. This trust in healthcare and providers changed with growing evidence that physicians sometimes acted against their patients’ interests. The Nuremberg trials post World War II provided sufficient grounds for mistrust in the profession. As a result, greater emphasis was placed on autonomy and self determination of individuals, by the international organizations which emerged to codify the conduct of doctors. It was emphasized that patients should be made equal partners in medical decision making. Some studies found that when patients actively participated in
the decision making, the outcomes were better[80]. In this period, it became an ethical requirement for physicians and researchers to obtain voluntary informed consent for participation in medical research as well as for treatment and procedures.

As patients become increasingly able to make informed decisions, their trust in the doctor may reduce as they start suspecting that the doctors might act in their own self-interest rather than the best interest of the patient [81]. Lack of adequate information to patients, poor communication skills of the doctor and suspicions about conflicts of interest naturally lead to doubts and suspicions.

There is another facet to the interaction between trust and autonomy. Patients, who have blind trust in their physician, tend to participate less in the clinical interaction and allow physicians to make most decisions. This can have negative consequences. Physician may fail to do the best in the circumstances as they may not feel accountable for their actions. There is also potential for exploitation as doctors knows that their decisions will not be questioned.[81] Thus with the rise in importance of autonomy in the patient-physician interaction, patients’ trust may no longer be “blind trust”. Autonomous patients may choose to have “calculated trust” in which they weigh their choices and make a calculated choice to trust the doctor.

2.9.3 Ready access to information – “trust but verify”

The latter part of the 20th century heralded a rapid growth in information technology. While the internet is a powerful source of information, the ease of access to information can be a double edged sword.[82] There is a proliferation of information,
without regulation to ensure its accuracy, and some of it can be misleading. The ease of access to information has empowered patients to ask questions, but may also have led to a decrease in trust. When patients have unlimited access to information, their trust in the doctor should be understood as a dynamic phenomenon. Patients expect that the doctor will do what is best for them. But they are also alert enough to ask questions and verify the doctor’s advice if need be. This relationship has been described as “trust but verify”[14]. Trust would not imply a compromise in autonomy and the need for full information. The development of information technology has given rise to readily verifiable trust. The patient has access to information and thus can verify the doctors’ decisions.

2.9.4 Profit-motivated health care – “skeptical trust”

The growth of the private sector in healthcare has led to significant improvements in the quality of healthcare and technology, but has also caused glaring disparities in health. The business model of health care has led to skepticism among patients [75]. Patients who pay large sums of money out of their pocket may wonder if their doctors are doing all that is best for their treatment. They may wonder whether their doctors’ decisions are motivated by money. At the same time, there is some evidence that in developing countries trust in private doctors is higher than in the public health system [40]. They may believe that paying money buys them trustworthiness in the private health system, whereas the public system is not trustworthy since no money is paid. This can be described as a ‘skeptical trust’, the patient’s strategic acceptance of his vulnerability, while remaining skeptical in the belief that money determines trustworthiness.
2.9.5 Protocol-based medicine – “impersonal trust”

Another important development which has a significant impact on patient-physician trust is the growth of evidence-based medicine (EBM). The evidence-based medicine movement has been criticized for disrespecting the value of clinical experience and expertise. Its protocol-driven practices ignore patient preferences and can increase healthcare costs [74]. However, the presence of standard treatment protocols which are publicly available may also lead to increased accountability. By demystifying medical treatment, EBM also leads to a reduction in blind trust in the doctor. The patient gathers information about the disease and treatments, and the trust s/he develops is more in the standardised protocols and treatment procedures than in the physician. This makes the trust impersonal. Thus the original “blind trust” can be seen to have evolved into ‘calculated trust’, ‘verifiable trust’, ‘skeptical trust’ and ‘impersonal trust’ over time, facilitated by sociopolitical developments in healthcare.

2.9.6 Trust is still an important value in health care

The model of trust in healthcare has evolved significantly, as described in the previous paragraphs. However, any doctor-patient relationship necessarily exposes the vulnerability of the patient to the doctor, with patients surrendering themselves to the doctor in the good faith that they will be taken care of. The models presented here only describe the extent to which the trust is blind or well informed. Some western studies have reported diminishing levels of trust in healthcare.[17] This assessment is flawed because it does not consider the dynamism of trust as a concept. The dynamism referred to here is the responsiveness of the nature of trust in healthcare to the social situation. Assessment of trends of trust in healthcare over time should take into consideration the
interaction of variables such as the social environment, political circumstances and scientific developments. It is more likely that the form of trust has changed, and not trust itself.

A true loss of trust in health care is reflected as a reduction in trusting behaviours [12]. A typical example is the adverse event following immunisation for measles in Tamil Nadu[83]. Following the death of four children after administration of the measles vaccine, the measles vaccine coverage rate reduced drastically. This is a direct reflection of loss of trust in the measles vaccine and the system. But reports of reduced trust in the public health system have to be assessed with care as they are not associated with a concurrent distrustful behaviour. One factor which underlies the concept of trust through its various forms of evolution is ethical practice. Ethical practice of health care strongly influences trust.

2.10 TRUST IN HEALTH CARE AND MEDICAL ETHICS

2.10.1 Influences of medical ethics on doctor-patient trust

Medical ethics has evolved as an important branch of bioethics in the past few decades. The four principle approach to medical ethics, involving autonomy, beneficence, non-maleficence and justice, though severely criticized for its restrictions, has informed most major decisions in medical ethics.[84] Medical ethics gives guidelines to clinicians regarding the right and wrong conduct in various clinical situations. It is intuitive that ethical practices should increase patient trust in physicians. But the
interaction between medical ethics and trust in the doctor patient relationship is not simple.

2.10.2 Autonomy and trust

The recent years have seen increased emphasis on patient participation in medical decision making.[80] There is evidence to show that when patients actively participate in the decision making, the outcomes are better. This facet of patient autonomy has been emphasized in medical ethics literature. Thus autonomy is not only of intrinsic ethical value, it is also an instrumental good. The process of fully informed consent has taken prime importance in medical research, medical treatments and procedures. However, how autonomy interacts with trust is an interesting discussion.

There is significant debate on the fact that increased autonomy could lead to decrease in trust.[14] It is argued that as patients become increasingly autonomous and able to make informed decisions, the patients’ trust in the doctor reduces as they start suspecting that the doctor might act in their self-interest rather than the best interest of the patient. Lack of adequate information to the patients, poor communication skills of the doctor and suspicions about conflicts of interest that are natural in the free market model of health care, leads to significant erosion of trust despite high levels of autonomy.[81]

An example in this context is the situation of increased preference and demand for injections and intravenous fluids by patients. Should the doctor compromise her rational decision making to uphold the autonomy of an ill-informed patient? If she does not respect the autonomy of her patient, what would happen to the trust in the doctor
patient relationship? These questions have to be addressed in the context of what is defined as autonomy. Autonomy is self-determination which is properly and fully informed. Autonomy has to satisfy the criterion of being free of external influences, be it coercion or lack of full information. In the situation of patient demand for irrational injections, if the choice is ill-informed then it is not autonomy in the right sense and the doctor should make all attempts to provide full information before she can consider upholding the autonomy of the patient.

There is another facet to the interaction between trust and autonomy. Patients who have blind trust in their physician tend to participate lesser in the clinical interaction. They tend to allow the physicians to make most of the decisions.[14] This opens up a potential set of consequences. On one end of the spectrum is complacency on the part of the physician and failure to do the best in the circumstances as there is a sense of non-accountability. The other end of this spectrum is potential for exploitation as the doctor knows that her decisions will not be questioned. This does not imply that autonomy and trust cannot coexist. This discussion demands that the concepts of trust and autonomy be clearly defined. Trust in doctor should be understood as a dynamic phenomenon where there is expectation that the doctor will do what is best for the patient, but also alertness to ask questions and verify if there is a need. When thus understood, trust would not imply a compromise in autonomy.

2.10.3 Beneficence / Non-maleficence and trust

Trust is a forward looking expectation of therapeutic benefit from the doctor patient interaction. Thus the underlying concept in trust is an expectation of beneficence and non-maleficence. Both interpersonal trust in physicians and the institutional trust
depend on experiences. Experiences which enhance beneficence and utility have been shown to promote trust. In some situations past experiences and even historical experiences determine trust in the health system. Several studies among racial minorities in developed countries have shown that trust in health care among these communities is low. These could directly reflect the past experiences of neglect, maleficence and discrimination that these communities faced.[63]

One example where trust and beneficence interact in medical practice is therapeutic privilege. Therapeutic privilege is when the doctor withholds some important information from the patient in the patients’ interest, when the doctor believes that providing that information can harm the patient. This is usually done in the ethical backing of the principle of beneficence and non-maleficence. But the relationship between a doctor and a patient is viewed as a ‘fiduciary’ relationship as there is a significant difference in the level of knowledge and awareness about health and the human body thus making the patient completely dependent on the doctor for all reliable information. A fiduciary responsibility demands that there is trust, faith, confidence, honesty and complete truth telling. Therefore therapeutically privileged withholding of information can lead to a corrosion of trust. Trust cannot be built based on lies and therefore carefully delivered truth is argued to be essential for trust building.[85]

Yet another important situation of interaction between trust and non-maleficence is when medical errors occur. Disclosure of medical errors upholds patients’ autonomy, helps in preventing future mistakes and has also been shown to be preferred by patients.[86] But what does disclosure of mistakes do to trust of the patient on the doctor or health system? Does it lead to trust erosion? Previous qualitative studies have shown that when a medical error happens the patient goes through anger and fear about their health. They prefer that all errors irrespective of the severity, be disclosed to them.
truthfully and completely.[87] The study also showed that full disclosure of medical errors leads to stronger trust of the patient on the doctor.[87]

2.10.4 Justice and trust

Justice is a very important but difficult principle to define in medical ethics. Justice can be viewed broadly as fairness or distributive justice.[84] It could further mean anything from equal opportunities to equitable distribution based on needs, contributions and merits. Health care is plagued with gender, caste, geographical and racial disparities. The justice argument would demand an equitable distribution of health resources among these vulnerable and marginal groups. Thus justice as fairness will help in building trust among the marginalized about the health system. Trust theories propose that trust develops when the person who is trusted displays benevolence and reliability.[88] The person who trusts watches the behavior of the trusted person with others, especially the marginalized and vulnerable. Thus justice is a key determinant of trust building.

In health care settings, especially in developing countries, scarcity of resources is an important constraint. When dealing with scarce resources distributive justice comes into question. To deal with this scenario Normal Daniels proposes the Accountability for Reasonableness framework of justice.[89] Accountability for Reasonableness states that there should be a relevant policy for allocation of scarce resources, it should be made publicly known, it should be amenable to appeals and revisions and there should be a mechanism to enforce the policy. Rationing of scarce resources follows three main principles namely, the need principle, rationing to those with the most health need, the maximizing principle, rationing to those for whom the benefits will be maximum and egalitarian principle, rationing equally to all.[90] The
The former two principles of rationing can lead to distrust among those who are denied because of their relative positioning in the need or the utility scale. But overall, trust would not be eroded if the feeling of good will is preserved in the process of rationing as described by Norman Daniels. The interactions between the various ethical principles and trust are shown in Figure 2.2.

Figure 2.2: The complex interactions between ethical principles and trust in health care.
2.10.5 Trust building – can ethics help?

Competence, integrity, honesty and fidelity are important dimensions of trust in a health care relationship. These dimensions are formative in nature. Each of these contributes to the overall trust of the patient. There have been studies of behavioral interventions for trust building. In one intervention study doctors were given training on clearly addressing the patients’ concerns, thorough history taking and physical examination, involving the patient in decision making, addressing the doubts and questions that the patients have and arranging for follow-up care. But this behavioral intervention did not have a significant effect of trust building.[67] Another study looked at disclosure of conflicts of interest and its effect on trust. This study also did not prove significant trust building.[68] Evidence that trust can be built is still elusive. But it is intuitive that progress in the dimensions of trust could lead to significant trust improvement. Ethical practice of medicine apart from being intrinsically good, can be viewed as one means of promoting trust in health care. The fine interactions between trust and ethics need to be understood.

In summary trust in health care is an optimistic acceptance of the vulnerability of the patient in the belief that the doctor will do what is in the patient’s best interest. Trust can be interpersonal between the doctor, nurse, allied health professional and the patient or it could be institutional. Trust is an abstract construct which has the dimensions of competence, honesty, confidentiality, fidelity and global trust. Trust in health care can be influenced by a wide variety of physician, patient and health system factors. Trust has important beneficial effects in the clinical encounter. There are several scales to measure trust. Trust increases adherence to treatment, follow up, revealing of sensitive health information, a perceived placebo effect, reduced need for second opinions and reduction in health care costs. Though the determinants of trust are understood well, it has not been
possible to demonstrate any effective intervention to promote trust in health care. Trust in health care is an evolving phenomenon from ‘blind faith’ to strategic, calculative, skeptical and objective trust. Though trust seems to be evolving based on the socio-political developments, one undercurrent in the trust discourse is ethical practice of medicine. With this background understanding of trust in health care the details of the thesis will be described in the following chapters.