5. Fever Care as Culture of Medical Practice

This chapter is an attempt to understand fever care, and its focus will be on culture of fever care. Culture of fever care as mentioned in Chapter 2 comprises of the procedures carried out by the hospital for those who come to the hospital with the complaint of \textit{fever} (self-reported) to help the ill person get rid of the illness. The analysis will be carried out within the context of medical care in which the processes of diagnosis, prognosis and therapeutics will be central. Additionally, the administrative function that covers the organisational aspect of the hospital that can have a bearing on medical care will also be covered. While inquiring into the contemporary practice of biomedicine, it becomes important to examine historically the evolution of Western medicine with special reference to its practice. In social studies on health, medical care generally implies the pattern of care rendered in public and private sectors as well as at various levels of care (primary, secondary and tertiary). In the present thesis, Chapter 4 was an attempt to examine this aspect. According to some scholars, this aspect of provisioning is usually carried out using empirical analysis cataloguing the efficiency based on the audit of births, deaths and health (Good 1994, Atkinson 1995, Lupton 1994). This, Vishwanathan (1997: 108) comments as the \textit{external} analyses that focus on the political economy of medicine, sociology of hospitals or on the medical profession that usually upholds some criticisms and reject others on \textit{scientific} grounds. This renders a taken-for-granted position for the process of definition of disease, rationale for therapeutics and thereby leaves production of medical knowledge untouched. This inadequacy is rectified by several ethnographic studies on the \textit{medical work} that focuses on the production of medical categories within a clinic. The present chapter is a similar attempt on the ethnography of fever care within the microcosm of a hospital that comprises of both administrative and medical function, in order to demonstrate the \textit{medical work} that has direct bearing on the outcome of medical care. This will be situated within the history of Western medical practice where the latter will remain as a pretext to the contemporary practice in general and that of the study area (Kerala) in particular.

5.1 History of Western Biomedical Practice

It is not untrue that the history of medicine is as old as mankind itself. It is not the purpose here to provide a chronology of events that has contributed to the current...
biomedical practice, rather an attempt is made to examine the major shifts that have happened in the theories of medicine and therefore the changing pattern of medical practice. The changing role of the physician, patient and the advent of technology will be given due consideration in the light of the major philosophical shifts that have influenced the practice of medicine. Primitive belief on the supernatural theory of diseases entrusted the priest or the anti-priest as one who could intercede with the God or overcome the devil, thereby nullifying the malignant influence (Cartwright 1977). Despite this belief, treatment was based on the casual observation that certain herbs can relieve certain symptoms. As per the historians of medicine, it was a common feature that treatment never depended entirely upon orthodox theory during the early period (ibid.). Here, the effectiveness of the treatment was attributed to the faith of the patient towards both the drug and the doctor.

Ancient Greek philosopher-physicians influenced not only Western medicine, but also the Western world more than any other nation during this early period. In 639-544 BC, the first theory of natural causes was propounded which proposed that all natural substances including human body are compounded of earth, air, fire and water whose balance constituted health, while disease was treated as its imbalance. This became the basis of the theory of humours in medicine (ibid. 3). Unlike earlier times, it was during the time of Hippocrates (450-370 BC) that the dissociation of medicine from philosophy by transforming its theory in its own right as well as the refutation of supernatural causes or magic remedies occurred. This was based on experiments by collecting vast quantity of facts about diseases rendering a scientific outlook to medicine. Hippocrates was more of a practising physician than being a theorist as the patient was more important for him. He was thereafter acknowledged as the founder of bedside medicine. He combined humoral theory with practical knowledge about anatomy and disease that together formed a true humoral pathology. To him, “somatic disease was an internal battle between morbid matter, a concrete cause, and the natural self-healing power of the body” (ibid. 5). Later, during the century after Hippocrates’ death, his successors rigidly differentiated medicine between five subjects: physiology implying normal function; aetiology or the philosophy of causes; symptomatology, which broadly meant the appearance of disease; hygiene or the principles of health; therapeutics or methods of treatment (ibid.). The latter was subdivided into surgery, dietetics and pharmacology.
After the Greeks, the medicine known was largely of the conqueror's who established their empire, whether it was Roman when the Christian faith dominated the medical knowledge and later Arab medicine when translation from Greek and Roman texts were more frequent. It was at the time of Roman medicine that the humoral theory was rejected and the theory of **pneuma**, a vital principle, believed to have carried by the nerves, and considered as the basis of life, got established (ibid.). Later, Galen (129 BC - 216 AD), a Greek settled in Rome known for the compilation of the works of Hippocrates, accepted both the early doctrines of **humors** and **pneuma**. Though he followed Hippocrates in the method of treatment he started using complex herbal mixtures different from the earlier approach of single entities. After Galen, Roman medicine reformulated doctrines of **pneuma** and humors thereby giving final authority to God, as it is he who created humoral balance and **pneuma** as the spirit of God breathed into inanimate clay. Hence, the role of physician was to alleviate illness and not cure, as cures were miraculous (ibid. 11).

The Arabs revived the humoral theory and applied that to the remedies using two medicaments: sugar and cardamom, which was believed to have humoral properties in varied degrees. Their major contribution was in practical pharmacopoeia through the **alchemists**, who extracted the spirit from the substance (ibid.). After the wane of the Muslim Empire, the Latin-speaking priestly and upper classes started to move into Southern Spain and translated Arabic manuscripts into Latin with the firm hands of Church again controlling the medical philosophy. The firm hold of Church not only forbade dissection, but also considered medicine an educational discipline totally divorced from the bedside (ibid.). The upper hand of Church could not be sustained for long, as there was revolt against the repression of holy Church partly due to the scandal of rival Popes, and partly due to the terrible living conditions that developed in the second-half of the century. The invention of printing and voyages of discovery during the fifteenth century widened the movement of medical manuscripts resulting in greater access to the works of Hippocrates and Galen to a large group.

The sixteenth century was known for the two great men in medicine: Andreas Vesalius and Paracelsus. The former, known for his contribution in anatomy, passionately followed Galen's teaching to such extent that any variation from the teaching was treated as the change occurred after first century AD, the period of
Galen. His interest in anatomy raised the status of surgery to a science, which for Galen was only a means of treatment (ibid. 16). Paracelsus is known for rejecting the teachings of Galen and propounding a new theory of disease that identifies five causes: cosmic agencies, pathological poisons, predisposition, psychic and divine intervention (ibid.). He had faith in astrology and alchemy, which resulted in the introduction of number of metallic salts into the pharmacopoeia. Regarding treatment, “there arose the claim that experiment was more valid than tradition, that therapy must utilise the arcanum, the potent quality of drugs to be obtained through chemical processes” (Temkin 1964: 3). Later the battle between Galenists and Paracelsists ended by the disappearance of the former and the reduction of the latter to a small minority around the beginning of the eighteenth century.

5.2 Lineage of contemporary Biomedicine

Until the seventeenth century, medicine has followed more or less similar ways as that of the early period following Hippocratic and Galenic foundations. The development of medicine was in pace with other sciences during this period as Enlightenment brought a new outlook to society as well as to other sciences. It is also true that several important discoveries in Science were made during this period. The major philosophical lineage of contemporary biomedicine can be traced while examining the history of medicine during the seventeenth, eighteenth and nineteenth centuries. It is the experimental approach, the culmination of inductive reasoning and thinking machine that resulted in legitimisation of Vesalius and Paracelsus’ followers.¹ In the field of medicine, Harvey’s discovery of the circulation of blood and the theory of respiration resulted in the establishment of basic elements of circulatory and respiratory physiology by 1670 (Cartwright 1977). During the same period, the Royal Society of London was established in 1662 for the improvement of natural science and the major physicians at that time translated theory into bedside medicine (ibid.).

The physician’s approach regarding diagnosis during seventeenth century is obvious from this passage:

To determine the nature of illness, he (the physician) relied chiefly on three techniques: the patient’s statement in words which described his symptoms; the physician’s observation of signs of the illness, his patient’s physical

¹ It was Francis Bacon’s inductive reasoning and René Descarte’s proposition of human being as a thinking machine (mind/body dualism) that set the worldview at the Enlightenment.
appearance and behaviour; and more rarely the physician’s manual
examination of the patient’s body (Reiser 1978: 1).

During this period, the major focus was the patient’s narrative and only in modern
times have patients and physicians learned to accept diagnosis by physically intruding
upon the body. The centre of medical practice was the home either of the patient’s or
the physician’s and institutional care in places such as hospitals was only for the poor
and the destitute. The meaning of hospitals then was quite different from the current
usage. Therapeutics during this period was under conflict between the Galenists and
the Paracelsian not only on the introduction of chemical drugs, but also on whether to
treat specific illnesses as entities or to restore harmony to the patient’s bodily
functions by restoring humoral balance. This was reflected in the writings during that
period: “Doctors treated fevers, fluxes, and dropsies rather than particular diseases”
(Shyrock 1960 c.f. Reiser 1978: 8). Upholding the argument of Paracelsus, Thomas
Sydenham, an English physician argued that disease can be categorised into species
that is capable of creating disorders coincident with their respective essences. He also
proposed the possibility of categorising various illnesses into a finite number of
species similar to plant species. His descriptions of illness phenomena were based on
the patient’s story and his own clinical observations (ibid.). Sydenham’s classificatory
schema was carried forward by several physicians who were engaged in the
classification of disease into species, class, order and genera. Almost during the same
period, social legitimisation of autopsies happened as the Enlightenment offered a
new explanation about death and experiments. This is described as:

With the coming of the Enlightenment, death, too was entitled to the clear
light of reason, and became for the philosophical mind an object and source of
knowledge (Foucault 1975: 125).

Morgagni, based on the autopsies he performed, published a five-volume book in
1761 that correlated post-mortem appearances with clinical symptoms. The central
feature of his report was that he compared the clinical course of illness among patients
with the pathological lesions at autopsy (ibid.). Thus, through anatomy, a linkage
between the characteristics of the lesion within and the symptoms produced was
established which also sidelined the search for the ultimate physical causes of illness.
This report also helped the physician ensure protection as well as increase his/her

\[2\] During this period hospital was a place that provide settlement for the poor and the destitute located
as an attachment to settlements or parish where care instead of cure was rendered.
reputation by subsequent demonstration to the friends and relatives of the true nature of the malady which the patient suffered from (Reiser 1978: 18). Carrying forward this anatomical search, Francois-Xavier Bichat, a French physician, instead of attributing disease as the impairment of the entire organ considered disease as a local injury to the tissues, which for him were the building blocks of organs. He also added that observation of symptoms in the living patients without studying their effects on the anatomy in the dead was a folly (Foucault 1975: 131, Reiser 1978: 19). This idea of intrusion into the body in search of diseases not only sidelined the search for final causes, but also made the site of infection primordial. Foucault (1975: 140) comments on this as:

For Bichat and his successors, the notion of seat is freed from the causal problematic (and in this respect they are the heirs of the clinicians); it is directed towards the future of the disease rather than its past; the seat is the point from which the pathological organisation radiates. Not the final cause, but the original site.

The physicians too, influenced by the new orientation, shifted their focus from patients' stories, their visual appearances to the internal of the patients in search of the anatomic changes which Foucault (1975: 146) describes as the shift from clinical experience to anatomo-clinical gaze. Thus, physicians' introduction of manual techniques as well as their search for tools for clinical diagnosis altered the nature of medical practice. Reiser (1978: 19) describes this as:

The practice of dissecting bodies to find physical evidence of disease began to transform some eighteenth century physicians from word-oriented, theory-bound scholastics to touch-oriented, observation-bound scientists.

Broussais, in his 1808 treatise explains the site of disease to be more important than the visibility of the lesion as the disease in its nature being local makes visibility of the lesion possible only in a secondary way. In other words, it is not merely the presence of a lesion that is important, but also its effects that can disrupt the normal functioning of the body (symptoms). This Foucault (1975: 189) elaborates:

With Broussais, localisation demands an enveloping causal schema: the seat of the disease is merely the link point of the irritating cause, a point that is determined both by the irritability of the tissue and the irritating power of the agent. The local space of the disease is also a causal space.

The above make clear that Broussais identified the effect of any disease at two levels, first the affected function and second, the affected tissue of the organism. Symptomatology, a sign of bodily functioning, at this juncture rediscovered its role
but a role based entirely on the local character of the pathological attack. In other words, symptoms became a means to identify the lesion or the physiological imbalance. The purpose of therapeutics was not only to eliminate cause (local site) but also the effects that do not always disappear even when the cause has ceased to operate. The above explanation that the organism and disease co-existed in the same space nullified the being concept of disease. This, in a way, provided a better explanation on the fundamental relationship between physiology and pathology (Canguilhem 1991). During the same period, the transformation from the study of materia medica to the study of pharmacology occurred. Thus, the tasks of pharmacology were to study the active substances within the drugs as well as the changes brought about by these drugs on the organism (Temkin 1964).

It was Claude Bernard, who deeply influenced the physicians during mid-nineteenth century, who argued that the continuity of pathological phenomena and the corresponding physiological phenomena are more a monotonous repetition than a theme (Canguilhem 1991). He considered medicine as the sciences of diseases, physiology as the science of life. This, he demonstrated through his lectures on diabetes as:

Common sense shows that if we are thoroughly acquainted with a physiological phenomenon, we should be in a position to account for all the disturbances to which it is susceptible in the pathological state: physiology and pathology are intermingled and are essentially one and the same thing” (c.f. Canguilhem 1991: 67, Bernard 1877).

This led to the understanding that health and disease are one and the same thing, whose only difference is in its degree. Extending this argument is the idea of health as the normal functioning (physiology) of the organism and disease as its pathological states (abnormal). For Bernard, “any exaggeration, disproportion, discordance of normal phenomena constitute the diseased state” (ibid. 71)

Almost during the same period as Bernard, Rudolf Virchow, professor of pathological anatomy in Berlin proposed the cell theory, which later became the basis of modern medicine. According to him: “the body is a cell-state in which every cell is a citizen” (Cartwright 1977, Waitzkin 1981). Therefore, the disease processes cause normal cells to become distorted or to proliferate at an abnormal speed (Cartwright 1977).
Thus, a new conception of the body as a mass of cells, each one endowed with individual life and capable of undergoing change emerged. This resulted in the understanding that as disease processes depend on abnormal behaviour of cells, the cause of the disease could be found in the reason why cells behave normally. It was Morgagni who identified the disorder (abnormality) at the organ level, Bichat at the tissue level and Virchow at the cell level. It is worth mentioning that even the contemporary search at the genetic level fails to explain the causes of several diseases. It was the cellular explanation of disease that made many physicians lean towards the laboratory pathologist, and the advancement of laboratories for helping the physicians in their diagnosis (Reiser 1978, Cartwright 1977).

During the same period as that of Virchow, Louis Pasteur, professor of Chemistry, through his experiment on fermentation identified germs, which he explained as the cause of life and whose absence would leave all matter dead. It was almost at the same time that Darwin’s theory of evolution was published in his Origin of Species. Both these theories questioned the age-old belief that God created Man, which resulted in one of the greatest controversies in the history of science (Cartwright 1977: 138-139). The discovery of germs by Pasteur led to the knowledge that established an association between germs and disease. Whether germs cause disease or germs were the manifestations of disease conditions was not clear until 1877, when he identified that anthrax bacillus can lead to death due to anthrax among animals. This led to the establishment of the theory that germs were the cause and not the product of disease (ibid.). Robert Koch, a year before Pasteur's experiment with anthrax had already identified that anthrax bacilli can grow in animal blood as well as in tissues (ibid.). His continued experiments with microorganisms led to the famous Koch's postulates in 1882 based on his observation of Tubercle Bacillus that laid down the relationship between bacteria and disease. According to the postulate: the organism must be present in the diseased body; it must be possible to cultivate the organism outside the body in pure cultures; and it must be capable of reproducing the original disease in susceptible animals (ibid. 141). The discovery of germs and the postulates of Koch were a new beginning in the field of medicine not only in its claim of scientificity, but also has drastically changed the very nature of diagnosis and treatment carried out by Physicians.
5.3 Contemporary Biomedical Practice

Medicine that is practised now considers disease to be due to any abnormal variation in the structure or function of the body. George Engel (1977: 130) describes “disease as universal biological or psychophysiological entities, resulting from somatic lesions or dysfunctions”. In the light of Koch’s germ theory and Bernard’s conception of disease as a pathological state of the body, contemporary biomedicine perceives the former as the cause and the latter as its effect. Thus, the disease in its manifestation affects the structure and function of the body, which can be identified based on the symptoms that render the signs, which knowledge owes to Broussais, and can be treated with the drugs. Thus, according to Good (1994: 8) the tasks of clinical medicine is confined to:

Diagnosis—the interpretation of the patient’s symptoms by relating them to their functional and structural sources in the body and to underlying disease entities—and rational treatment aimed at intervention in the disease mechanisms.

Diseases, thus are identified based on discrete sets of signs and symptoms or by diagnostic tests which will be categorised within the taxonomy of biomedicine primarily in terms of the biological characteristics of the causative agents (Brown et al. 1996). This ideal situation is more of a theoretical situation whereas practically the taxonomic and diagnostic systems are based on certain cultural assumptions about causality and normality; obvious from the practice of medicine that varies according to local traditions (ibid.). Thus, the notion about biomedicine as that which provides objective knowledge of pathology, represented as a reflection of the natural order revealed through physical findings, laboratory results and the visual products of contemporary imaging techniques, is in reality an outcome based on the practical reasoning and work of physician with the participation of the patient.

It becomes important here to examine the role of physician and the patient as well as the procedures involved in the medical work, using Atkinson’s terminology to accomplish the task of diagnosis and management of disease. The purpose is to draw more attention to this medical work within the context of socialisation of the

\[^3\] Atkinson in his study among haematologists, use the activities of physicians as accomplished medical work as it is embedded within a social and technical division of labour and also is grounded in material as well as cultural resources.
physician as well as the patient in their respective socio-cultural setting. For Atkinson (1995: 45), it is these:

...socially organised practices and transactions by which facts, findings, representations, opinions, diagnoses—all the elements of practical medical knowledge—are produced and reproduced.

Socialisation of physicians are situated within the medical culture, which is itself produced and reproduced through the processes of socialisation, which in turn, shape their perception about medical categories like disease. This Fleck (1979) calls *thought style* and for Friedson (2001) it is *the clinical mentality*. Examining socialisation of physicians is an initiative to be symmetric in analysis by examining medical care giving due consideration to the provider side also. This is because the socio-cultural context of the patients has been an area of study for so long in order to situate their understanding about illness. In the current context of medical practice, a study will be incomplete if it fails to examine the role of technology and therapeutics. This will be approached based on the concepts of *medicalization of life* used by Zola (1972) as mentioned in Chapter 2 and *pharmaceuticalisation of health* by Mira Shiva (1985). Both these terms are self-explanatory, wherein society’s dependence to medicine being the focus and the former concept accommodates dependence to technology also.

### 5.4 Medical Record, Vehicle for Accomplishing Medical Work

A concise definition of a medical record or case record becomes difficult, as a series of medical-care activities are carried out by maintaining a proper case record. Roughly speaking, one can say that it is the record of the act of *doctoring*, comprising mainly of diagnosis and treatment accomplished with or without the participation of paramedics. The significance of case record was more for the purpose of *medical research* as the content in the case record is usually seen as doctor’s description of patient’s distress (disease) based on expert knowledge. From a sociologist’s point of view, it is through medical recording that the patient’s illness get transformed into the doctor’s category of disease. Studies that looked at practice of medicine as *medical work*, also examine medical records as a form of representation of the real work that happened before (Berg 2004). In the current approach, the role of medical record is seen as such that *medical work* gets accomplished through this disembodied artefact.
The role and importance of medical record varies with the person who examines it and the context in which it is produced. Its structure, form and nature depend on the type of hospital, primary or secondary and the sector, public or private, to which it belongs. A brief description of its nature, function and characteristics as observed in the Allopathic hospitals of Kerala will be attempted. In any hospital, the case record starts its journey from the registration counter where the name of the patient and age is entered. Thereafter this remains as the identification of the patient until he/she gets cured. In other words, it is this act that transforms a personal identity to that of a patient.

Once a patient starts consultation with the doctor, the patient’s case record is kept ready in front of the table of the physician. Based on the description of the patient, the doctor checks the patient’s name and age in the case sheet and then based on the format taught during medical training, the symptoms, history, habits and so on. Then the doctor prescribes laboratory investigations and other procedures if necessary. Then, in case of the patient needing laboratory test, he/she has to get it done and returns to the doctor. By this time, the same medical record carries the expert message of the doctor to the laboratory technician after which his comments are written sometimes on the same record or else attached to it in the specified format. Again the patient comes back to the doctor and ideally based on the laboratory tests, the doctor will write a diagnosis if any, and then prescribe medications. In case the patient needs to be subjected to more examinations and that too from different specialities, then all those details are recorded in the case record. Later, the same medical record reaches the pharmacy counter where the patient collect medicines and the pharmacist gives directions regarding timings for drug intake, nature of drugs etc. based on the physician’s prescription on the record. In case of follow-up in the future, the same case record is used and the process is repeated.

The nature and characteristics of the case record depend on the sector to which the hospital belongs and whether the care rendered is outpatient or in-patient as well as other factors like type of doctor, type of illness, facilities available in the hospital and so on. Despite these, some commonalities and diversities that were found specific to public and private sector hospitals both at the primary and secondary level will be focussed on. In the case of outpatients at the public hospitals, it becomes the
responsibility of the patient to safeguard the case record as well as to carry it to various sites within the hospital premises and even to private laboratories and pharmacies situated outside the hospital premises if required. In the case of inpatients, it becomes the responsibility of nurses who are accountable to the physician-in-charge. On the contrary, in the private sector, case records are treated as sacred, and the hospital staff do not allow the patient or their relatives to go through (even to touch) them unless there is a strong demand from the patients and is sanctioned by the doctor. In this light, it is interesting to find that there is a separate staff in most of the private hospitals, whose major duty is to carry these case records to various sites within the hospital, who is also the attendee to the physician. The sacredness or untouchable nature of the case records was better revealed during the fieldwork when it was found that one of the important reasons for which the doctor scolded the attendee was for allowing the patient to go through the case record. Similar to that of public hospitals, in the case of in-patients, it is the nursing staff-in-charge of the patient, who is responsible for not allowing the patient to go through the case record.

The above description shows how the case record accommodates various actors in its making. Further, this case record is treated as a valid document and the categories like diseases are treated as scientific categories in medical research. The division of labour among doctors and paramedics during medical care is co-ordinated through this record through communication among the experts without inter-personal interaction. The language of communication is only understandable to those who are socialised to the medical world. The extent of work that medical record get accomplished become obvious when one thinks that a single full-time staff is employed in private hospitals whose major duty is to carry the case record to various destinations as and when required. Above all, private hospitals do not even allow any patient to refer or to touch his/her own case record, thereby creating a barrier to its access. In other words, a sort of sacredness gets attached to the case record once the patient gets registered. This attitude is in its peak immediately before and after the patient meets the doctor. This sacredness (possessiveness) reflects that once a person is registered as a patient in a private hospital, the autonomy of the hospital over various kinds of knowledge about the patient; viz. his disease, his laboratory test results, type of drugs prescribed etc. lies with the hospital. The argument could be that it is the hospital infrastructure that made possible this knowledge and the subject of the patient that made this
possible is seen as a mere specimen (object). This autonomy over medical records is ultimately the autonomy over expert knowledge, which is reflected in its handling during *medical work*, as well as its procurement and handling at the medical records division, in the name of privacy of the patients.

### 5.5 Role of Thermometer in Fever Care

The Allopathic system of medicine defines Fever as a symptom characterized by an elevation of body temperature from the normal, i.e. more than 99 F or 37.2 C (Petersdorf 1974). Additionally, any description regarding the management of fever specifies the significance of temperature in the course of disease as well as the precautions to be observed in using a thermometer. This is obvious from the textbook on internal medicine prescribed for medical students which says “In fact, fever is such a sensitive and reliable indicator of the presence of disease that thermometry is probably the commonest clinical procedure in use” (ibid.48).

During the seventeenth century, when thermometer was introduced in clinical practice for the first time there were several arguments like difficulty in using for clinical practice, and later attributing lack of time as well as its extend of usefulness was raised for its non-use (Reiser 1978). Wunderlich, a young physician countered these in 1868 after publishing a treatise, *on the temperature in diseases*, which served as a guide to everyday practice. In it, he outlined the fundamental components of thermometric observation, the art of using it, as well as a description of variations of temperature in 32 disorders (ibid.). Moreover, similar to any other medical technology whose values are expressed in numbers, the claim to *objectivity* was also projected. The very act of taking reading was also considered a simple procedure that no longer needed the expertise of a physician as anyone could effectively carry out the procedure. Thus the task was shifted from the physician to the *helper* or the *attendee*, based on the presumption that the latter would have no pre-conceived notions about

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4 Also, as per the protocol brought out by the Directorate of Medical Education, Government of Kerala in the context of fever epidemics, the term used was Syndrome of fever, which attribute to fever characteristics that are more than a symptom. For details see, Government of Kerala (2004): *Draft Protocol for Syndrome of Fever*, Directorate of Medical Education, Kerala.

5 A section in the document brought out during the epidemic give a detailed description on the care taken while measuring temperature. The need to correct the mercury column, the time period for which thermometer to be placed inside the mouth and so on. For more details see, Government of Kerala (2004): *Draft Protocol for Syndrome of Fever*, Directorate of Medical Education, Kerala.
the illness and thus be free from bias, resulting in a more objective value (ibid.). Thus, by the 1870s, Wunderlich's treatise elevated thermometry to a highly-regarded diagnostic technique. Despite several criticisms over the period on the over-dependence on the thermometer, the technique has been widely-accepted as an exceptional method that can aid disease diagnosis. This is followed even now in many hospitals especially during fevers. This is obvious from the passage from Harrisons' *Principles of Internal Medicine*, the text widely followed by medical students in their clinical practice:

> The temperature is a simple, objective and accurate indicator of a physiologic state and is much less subject to external and psychogenic stimuli than the other vital signs, i.e., the pulse, respiratory rate and blood pressure. For these reasons, determination of the body temperature assists in estimating the severity of an illness, its course and duration, and the effect of therapy or even in deciding whether a person has an organic illness.

(Petersdorf 1974: 56)

It is with the above understanding that the present study examines the role of the thermometer in the management of fever patients in Allopathic hospitals of Kerala. It was found that most of the out-patient departments in public hospitals no longer use thermometer in clinical practice. The justification given was lack of time. This could be partly true, as in many of the public hospitals around 200 to 300 patients are subjected to consultation by a single doctor in four hours (one OPD session). It was astonishing to find that a majority of the private hospitals (except few small hospitals/old clinics) during their everyday practice no longer consider temperature as an important criterion for fevers. This is obvious from the fact that the physicians neither use thermometer nor rely on touch-sensation while consulting a patient with complaints of fever. Here, it is not a matter of time, as at an average, a doctor spends more than five minutes with each patient as part of consultation. The explanations given by the physician is that temperature is no longer dependable as different patients show different patterns and many-a-time antipyretics, if taken before coming to the hospital, will distort the picture. The above explanations to some extent are valid, but the process of history taking can solve the latter problem. From the point of view of hospital authorities, to carry out temperature of patients, an additional duty needs to be assigned to the attendant, which over-burdens the duties of the existing staff. Moreover, patients' opined that, as the same thermometer is used to record temperature for different patients, there is a feeling of stigma as well as fear as the patients' identify a possibility of microbes transmitting from one patient to other as
those who are coming to the hospital are all patients (microbe carriers). As patient satisfaction is the current motto of private hospitals, the use of thermometer is sidelined conveniently by projecting the earlier mentioned scientific explanations.

It is at this juncture that the frequent dependency on Erythrocyte Sedimentation Rate (ESR), one of the routine blood tests prescribed by the physicians for patients coming with fever was noticed. The test implies the quantum of dead Red Blood Corpuscles (RBC) that sediment in the blood. The normal value of ESR usually lies in the range of 20-40 mm/Hr. For physicians an abnormal value of ESR in a patient implies the presence of infection that is only one cause of increase in ESR. Thus rise in temperature, used as an indicator of infection got substituted by ESR, a seemingly more objective unbiased value (number) which is irrespective of patient’s characteristics as well as lie beyond the patient’s domain. Even though raised body temperature as well as rise in ESR both signifies the presence of an infection the shift from temperature to ESR does not necessarily offer any additional efficacy to the process of fever care. In order to understand this shift it is interesting to find that in the authentic text of medicine, the relationship between fever and ESR is depicted as:

...fever is not an indication of any particular type of disease; rather it should be considered a reaction to injury comparable to an elevated leukocyte count or a rapid erythrocyte sedimentation rate (ESR) (Petersdorf 1974 : 56)

This shift from thermometer to ESR in the clinical work has to be seen as the reflection of the changing nature of medicine, which Jewson (1976) identifies as from hospital medicine to laboratory medicine. Here the microscopic particles (specimen) replace the person-hood of the patient, where it is the former who aids in the medical knowledge production. Thus, by shifting to ESR, the purview of medicine gets shifted from the physician in the hospital to the investigator in the laboratory—more specifically to the numeric values produced in the lab. It is highly possible that the corpus of medical knowledge in future might attribute upper hand for ESR than thermometer in case of fever diagnosis backed by scientific explanations. Then it has to be seen as a case of appropriating medical knowledge according to the changing nature of medicine, rather than the other way round as generally expected.
5.6 Diagnosis in Medical Work

Diagnosis of disease is one of the major components of medical care, as it is through this process that lay category (illness) is transformed into a medical category (disease). It is the diagnosis that determines the future course of therapeutics in patient care. Moreover, the scientificity of medicine is established by the systematic explanations of phenomena in terms of cause and effect, thereby formulating general laws where diagnosis is central. This, according to Samson (1999: 180), is:

In medicine, laws appear in the correspondence between diagnostic taxonomies—names for ailments—and illness states, which are elaborated as to their onset, course, duration and outcome. Over time, through laboratory and clinical experience, facts accumulate and on this basis symptoms of disease, disease states and remedies can be named and entered into the knowledge base. The aim of these endeavours is to formulate predictive forms of knowledge so that facts about the body in general and individual clinical histories in particular can be deployed to predict the trajectories that illness will make.

From a biomedical perspective, diagnosis depends on three things: the history obtained from the patient, the signs noted on physical examination, and the results of laboratory investigations (Hampton et al. 1975, Wintrobe et al. 1974: 3-5). As per medical literature, the ideal way of reaching a final diagnosis is the syndromic approach to disease where the clinical method is seen as an intellectual activity that proceeds from symptom to sign, to syndrome, to disease, which is a linear progression from anatomical diagnosis to syndromic diagnosis and finally an etiologic diagnosis (Wintrobe et al. 1974: 5-6). Data on the physiological and anatomical impairment is collected based on physical examination, thereafter tallying with the known facts of anatomy and physiology of human body resulting in what is called the anatomic diagnosis. Subsequently, based on the above information and the prevalent signs and symptoms, a syndromic diagnosis is reached which does not necessarily identify the cause of the disease but narrows the possibilities that is capable of suggesting possible clinical and laboratory studies required (ibid.). Syndrome is defined as “a group of symptoms and signs of disordered somatic function, related to one another by means of some anatomic, physiologic, or biochemical peculiarity of the organism” (ibid. 6). The text further cautions medical students by pointing to the possibility of clinical method that can appear as scientific method as it involves both analysis and synthesis, the essential parts of Cartesian logic. It is worth mentioning that it is impossible for the physician to start clinical work with an open mind, but only with one prejudiced
from knowledge of recent cases, patient's first statement, physician's socialisation and so on that directs his thinking in certain channels (ibid. Fox 1989).

It is this aspect of diagnosis that make it contextual and unique in its own terms, but at the same time subjected to the kind and nature of health institutions, prevalent knowledge about illness, physician's training and more importantly, the nature of medicine itself. With this understanding about the process of diagnosis, two cases of fever that reached the health facilities studied will be examined in detail with special focus on the process of diagnosis happening at the hospitals. In all the following descriptions the four different hospitals selected for the study will be mentioned whose detailed descriptions were given in Chapter 2. The four hospitals are the Community Health Centre (CHC) rendering primary care and a District Hospital rendering secondary level care both belonging to the public sector. In the private sector, Sivani hospital—a small hospital rendering primary level care and Immanuel hospital, which renders secondary level care.

5.6.1 Diagnosis, not Merely a Medical Function

Case 1: Rajesh, 32 yrs, working as a mason went to the CHC with severe fever and cough. The interaction between doctor and patient was as follows:

D: what is your illness?
P: severe fever and cough
D: for how long?
P: two days
D: do you have temperature?
P: during night the temperature is severe
D: do you have body pain or like?
P: during night there is severe temperature

Then the doctor prescribed medicine for three days and asked the patient to test his blood and urine

The patient went home without doing laboratory tests and was cured after taking the medicine for three days. Based on the conversation with the patient at his home, it was found that the patient's leg was injured by a rock and the wound got infected which the patient has not mentioned at the time of interaction. For the physician, the diagnosis was written officially in the medical record as ?PUO, which is interpreted as the doctor suspects the illness as Pyrexia of Unknown Origin (PUO).

Theoretically, PUO are fevers whose reasons are unknown and belong to the category of prolonged fevers. The criteria of PUO is that there has to be elevated body temperature (>101 F), have to remain for at least two to three weeks and cannot be due to Malaria, Leptospirosis, Typhoid and a range of other causes that are eliminated.
based on intensive studies (Petersdorf 1974: 58). This is to say that only after ruling out a range of fevers and those fevers whose duration is more than two weeks are the basic criteria to be examined before reaching a diagnosis like PUO. The above diagnostic process fails to follow the basic criteria. In practice this is a very convenient diagnosis when physician does not know the reasons of fever. Above all, the relevance of taking history during medical care also gets revealed in the above.

**Case 2:** Another case is of Sajitha aged 40, working in the coir-manufacturing sector who came to the CHC with complaints of shivering, weakness, nasal block, headache and nausea. While consulting the doctor for the first time, she was asked to do TB tests, viz. Sputum test, as part of the TB control Programme. Thereafter, medicines were given for cough, headache and weakness for five days. After a week, the patient again came to the hospital with the sputum test results. The test results showed a negative value for three samples. The doctor then prescribed for x-ray and routine blood test. It was found that ESR was high (80mm/Hr) as per the results. After seeing the x-ray, the doctor commented: “Lab test only shows the disease as a case of Chronic Obstructive Pulmonary Disorder (COPD), interpreted as blockage of the lung. As there is history of TB for her husband and the drugs being free it is better to treat the patient in the third category of TB patients.”

6 This announcement by the doctor was to the Junior Public Health Nurse (JPHN) who gave the information to the doctor that the patient’s husband suffered from TB three years ago. The usual treatment for cough and pulmonary obstruction were also recommended for five days. Later, when the researcher visited the patients’ home the lady said that she was completely cured a week after taking the medicine for cough and pulmonary obstruction. She was in an utter confusion whether to take the drug for TB or not as she was free of any illness after one week of treatment for cough and headache. Moreover, she pointed to the sputum test that showed negative results when tested for TB.

The above case demonstrates how despite the laboratory tests showing sputum negativity for TB, the spouse’s history of TB and the National control programme for an illness has influenced the very diagnosis of a patient. This was a government health facility and also a centre through which National Tuberculosis Control programme is implemented.

The two cases above demonstrate the process of diagnosis in medical work where micro factors play a major role. In the first case, the diagnosis of an illness of two days duration as suspected PUO contradicts the very definition of the category itself. The explanation given by medical literature goes as “In some patients fever becomes the dominant sign or symptom in a patient’s illness, and when its cause escapes detection it is defined as fever of unknown origin (FUO)” (Petersdorf 1974: 58). This

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6 TB Programme being functional in the health centre, additional staff along with free medicines, were provided.
when translated in *medical work*, becomes such that a range of fevers that does not make any sense to the doctor can be categorised conveniently as PUO. In other words, owing to Fox (2000), this categorisation is possibly one way of managing (hiding) medical uncertainties during *medical work*, here, in the case of fever care.

In Sajitha’s case, it is obvious that the categorisation of TB by the physician occurred despite the three samples of sputum showing *negative* for the disease and X-ray results fails to indicate TB as opined by the physician. A close examination of events reveals that the spouse of the patient having a history of TB three years before and the on-going National Tuberculosis Programme that provided free medicines for TB patients were the two immediate factors that led to the diagnosis of the illness. Later the patient herself is not convinced of the diagnosis and is reluctant to take medicine for TB due to the negative laboratory tests. These cases reassert the fact that medical diagnosis and therefore production of medical knowledge is not necessarily determined only by medical indications (factors) at the micro-level, as the medical fraternity generally believes.

5.7 Situating Laboratory Investigations

Another important aspect of diagnosis is what constitutes a diagnosis? This is because though the ideal situation of what ought to be the procedures involved in diagnosis is well described in medical literature, the real life situation is highly complex and far from the textual description. It has been a feature within modern societies that many of the diagnosis in reality are confined only to *syndromic diagnosis* aided by laboratory tests and sophisticated medical technology that tell more about the physiology of the human body sidelining *anatomic diagnosis*. The latter was mostly accomplished through detailed physical examination with or without the help of medical equipment for which the case of the thermometer getting replaced by ESR test is an obvious case. The prominence of laboratory tests and sophisticated medical technology within the whole process of contemporary *medical work* resulted in redefining diagnosis as more of a variation of numerical values than as a somatic distress. Mcullough (1981) examines the *thought style* that guides diagnosis and concepts of disease. He argues that in a thought style that places increasing emphasis on the rational (and thus predictive) character of medical science—to put in an admittedly crude but accurate way, the contemporary culture of medical science—
numbers and names take on a powerful significance. Thus, he further argues that in
diagnosis, laboratory findings often take on greater significance in determining a
diagnosis than the findings of a history or physical examination. Once the physician
had mastered the task of understanding the significance of these numbers, the
physician is close to naming the disease, to make the diagnosis accurately (ibid.).
Thus, medicine with a highly rational and quantitative character calls for a directed
readiness for identifying the more significant resulting in a distinctive set of
observations.

This could be due to the over-dependence of technology in various walks of life— a
feature of modern societies (Bimber 1990) and the tendency of seeing numerical
values as more objective, scientific and concrete by physicians and thereafter patients
getting socialised into the same. This, according to Vishwananthan (1997:105) is that:

...the laboratory test provides a series of readings...when seen as operational
definitions of the reality of the patient, must have priority over the doctors
personal impression of the patient as a person and the doctor's clinical
impressions of the patient as a patient. The latter are parts of trans­
science...sometimes dismissively termed as "bedside manners". The former
allow for control and prediction and therefore seen as the heart of the science
of medicine.

5.7.1 Medical Uncertainty Despite Laboratory Investigations

Case 3: Kochumol, aged 29-yrs, mother of two children aged seven and two, went to
the Immanuel Hospital with complaints of fever, chills, vomiting, cough and pain
while urinating. Before going to the hospital, the lady went to a nearby clinic where
one injection was given to her and she was sent back home. On the second evening,
because of shivering and raised body temperature, she went to the physician's
house nearby who also happened to be the physician of the Immanuel hospital. The
doctor at his home gave some medicine but as she vomited, the doctor asked to
come to the hospital the next day. On the next day, she went to the hospital and
consulted the physician after which he prescribed for routine blood and urine tests
and asked her to get admitted. The laboratory test results showed lower value for
platelet count (49,000/ cu. mm). The presence of albumin and pus cells was
reported in the urine analysis. It was found that after a week, the sickness subsided
and of the various laboratory tests only platelet count was examined everyday until
the day of discharge. The symptoms of the patient subsided after a week when the
platelet count was 100,000/ cu. mm, but the patient was discharged after four more
days when the platelet count was 1,79,000/ cu. mm. At the time of patient's
discharge from the hospital the physician described the disease as "it was starting of
dengue fever" and now she is Ok. After ten days during the follow-up the value of
ESR was found very high (120mm/Hrr) and the doctor again asked to repeat the
earlier medicine and during the subsequent follow-up after a month, blood test was
carried out again and the values were found to be normal.

The official diagnosis (medical record) as per the doctor was Viral fever with reduced
platelet count. This, from the doctor's perspective, is that medical intervention as
part of care hardly differs in case of Viral fever or Dengue fever, as both are Viral infections and the approach followed is to treat the symptoms. Adding to this, it was said that: “the purpose of medical care is to relieve the sick from their illness and have minimal concern on the differentiation between disease categories, which is the major job of epidemiologists”.

The above case demonstrates the role of laboratory test in medical care. It was found from the medical record that platelet count in the blood is the only laboratory investigation that was carried out every day together with the physician’s statement that “it is the starting of Dengue fever” demonstrates the dependency towards platelet count, in the above case. Additionally, the criteria for discharging depends on the same platelet count despite the patient’s somatic sickness (clinical symptoms) were subsided much earlier. This is despite the warning that platelet count alone can not be used as an effective criterion for diagnosis of Dengue fever as platelet count can vary due to different conditions as there are certain drugs for fever that can reduce platelet count in blood (The Hindu, 18th October 2006). Moreover, it has to be noted that the patient was discharged only when the count was 1,79,000, the only value during the whole course of illness that was normal as per medical literature that sets 1.5 lac to 4 lac as normal. On interviewing the physician he said that, “it is impossible for the practising physician to discharge a patient unless the platelet count becomes normal”.

**Case 4:** Shiny Paul, 32 yrs, educated, mother of twin children aged 3 yrs, went to the Shivani hospital with complaints of fever, headache, cough and body pain. Her interaction with the doctor was as follows:

D: what is the matter?
P: fever, headache, cough and body pain
D: for how long?
P: one day
(Doctor did stethoscope examination, checked temperature (102 F) and prescribed medicine for three days)

**Patient again visited the doctor after four days (2nd visit)**
Doctor remembering the patient: how are you?
P: pain in the head and nose
(Doctor checked temperature (100 F) asked her to get lab tests done and prescribed medicines for another three days)

**Patient came after three days (3rd visit)**
Doctor after checking temperature (98.7 F) asked: how do you feel?
P: now I feel better
Dr after examining the lab test results: ESR is slightly high, you’d better see a physician. Usually ESR is not this high. You need to check the reason for this.

Later, the above patient consulted a physician in another speciality hospital and was prescribed vitamin tablets and was given some tonic saying that there is “shortage of blood”. The former doctor explained the diagnosis as fever and headache, both being symptoms and a final diagnosis of any disease was absent. The interesting aspect was the greater concern given to ESR, one of the laboratory values despite the
patient showing reduction in temperature as well as feeling better than earlier. This shows how even in simple illnesses, an abnormal laboratory test value is of great concern for the doctor despite the patient feeling better.

In both the above cases, the dependency on laboratory investigations is clear. This could be due to the biomedical physicians’ notion that more predictive power and scientific nature is embedded in laboratory investigations than without it. This notion also gets transferred from the physician to the patient through recurrent medical care, a kind of medicalisation that results in the dependence on medical technology, specifically laboratory tests. This was indicated in the behaviour of some patients who came for consulting a doctor for the first time with test results of abnormal ESR values carried out from private laboratories (without doctor’s prescription). On further inquiry, it was found that dependence is only the effect of a strong notion of abnormality prevalent while diagnosing a disease and therefore the patient’s well-being. In other words, the laboratory investigation in particular, or medical technology in general, are only tools through which abnormality of human body is established. This becomes obvious when we closely examine the above issue of platelet count and Dengue fever that raises some serious concerns.

Platelet count of 1.5 lac to 4 lac is treated as normal by medical literature for a human being. Once reduction of platelet count was identified as an abnormality and started being associated with Dengue fever, blood transfusion used to be the medical intervention followed. Based on the discussion with several physicians’ in various hospitals of the state, it was found that during mid-nineties any patient whose platelets count was less than 1 lac was subjected to transfusion. Later, when it was found from clinical experience that patients survive even without transfusion at levels of 75,000, the criteria was lowered to 60,000, then to 40,000 and recently to 25,000. This limit is followed differently by different hospitals, usually lower for public sector hospitals and higher for private sector ones because of the risk and profit involved in the case of the latter. In a recent press report on the myths on Dengue, Dr K. K. Aggarwal, president of the Heart Care Foundation commented that though platelet count of more than 1.5 lac is considered normal for a person, transfusion is required only when the count is less than 10,000 (The Hindu, 18th October 2006). He also warns that no pain-killer or anti-fever medicine barring paracetamol should be given as they can lower the platelet count. This lead to a possibility that platelet count reduction can be a drug-
induced abnormality, which alone is used as an indication for diagnosing Dengue fever in several private hospitals of Kerala.

Another aspect that is found interesting in both the above section on diagnosis and medical uncertainty is the fact that despite carrying out laboratory investigations there is a kind of medical uncertainty prevalent not only in diagnosis and prognosis but also in the very act of medical care. This is obvious from the case of diagnosing TB in which the physician has not given adequate attention to the negative sputum tests whereas in the case of diseases with fever as a symptom there is a kind of over-dependence towards laboratory tests like platelet count and ESR. Fox (2000) identifies the various realms at which medical uncertainty is inherent and how it complicates and curtails the ability of physicians to prevent, diagnose, and treat disease, illness and injury thereby question the efficacy of physicians’ practice. Besides, in the case of dependence to those laboratory results that are only the effects of the disease that gradually becomes the defining criteria of normality raises the question of normality for what and normality for whom? Lock (2000) poses these questions in her analysis on menopause and genetic screening abiding by Canguilhem’s (1991) maxim that normality can only be understood as situated in action.

5.8 Treatment Modalities

Another question raised of diagnosis is that diagnosis for what? This is because of the general notion that if diagnosis is the identification of the problem then treatment is the attempt to resolve it. It is quite obvious that a well-defined diagnosis can leave the problem half-solved. Not only is the search for diagnosis itself a form of active response, but it is widely recognised that naming a problem offers the sufferer and his or her family a degree of control through certainty that must itself be considered therapeutic (Samson 1999). The purpose of treatment is to alleviate the cause of the disease whether it is bacteria, parasite, physiological and genetic malformations and internal chemical malformations (ibid.). It is important thus to examine how medical literature perceive treatment modalities during medical work in general, and fever care in particular. Therapeutics is situated in the text on internal medicine as only one of the components of medical care in which primacy of the practice of medicine lies in medical care as a whole. This is elaborated to be due to two reasons (i) in contexts
where many of the drugs available are not beneficial and (ii) the realisation of problems that can arise due to the tampering of the natural recuperative powers of the body (Wintrobe et al. 1974: 6-7). The text goes on to further say that ideal treatment should strive for complete restoration of the patient’s physical and mental health. This in reality being unattainable, can turn to those interventions that can postpone the progress of disease or that can help tolerate distress (ibid.). It could be the extension of this philosophy that led to the shift from cure to care. The latter is now the key term in medical practice. Extending this, it is natural for a biomedical physician to prescribe medicines for several symptoms when a final diagnosis is lacking (for whatever reasons) as well as when the syndromic diagnosis shows the features of a Viral infection. Additionally, a significant amount of drugs manufactured by pharmaceutical companies are meant for various syndromes like pain, fever, malaise, nausea even when none of these are disease categories. This situation can also activate (catalyse) the above tendency of treating the symptoms. This kind of treating the symptoms rather than disease categories is known among physicians as symptomatic treatment, which is a feature of medicine practised in the contemporary period. Going one step further in the context of over-dependence on the laboratory, it is possible to find that treatment is modelled to address the abnormality detected by laboratory values rather than that of somatic distress.

5.8.1 Symptomatic Treatment

Case 5: Raghavan, 49 yrs, working as a mason sought treatment at the Sivani hospital with complaints of fever, cold and cough that lasted for two days. The physician based on consultation, prescribed medicines and asked him to get routine blood and urine tests done from the laboratory attached to the hospital. The values were normal for both. For the doctor, the diagnosis was written as fever, cold, and cough for two days. The consultation between the doctor and patient were as follows:

D: how are you?
P: Dr, fever
D: cold, sneezing, nasal block everything
P: everything is there
D: Is phlegm there?
P: only that is there
[Dr did stethoscope examination, checked BP, Temperature (99 F)]
D: Do you have any bad habits?
P: no, “he used to smoke cigarettes for everything” (Pt’s wife added)

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7 This is because there is no effective drug for majority of the viral diseases as there are only very few chemicals that can attack viruses within the human body.

8 Based on the personal discussions with several practising physicians during fieldwork.
D: you need to test blood and urine, medicine is written for now. Come after three
days.
Later, after a week, the patient came again when the illness was completely cured
and the doctor after examining the patient, conveyed that his chest was clear.

The above case is identical to other less serious cases of fever that reaches the hospital
very frequently with or without cough or phlegm accumulation. In the above case,
instead of diagnosis, a range of symptoms was written even though a medical
categorisation has not happened. The absence of a valid final diagnosis raises the
question on the logic of treatment whether the treatment is for the causative agent (if
there is one) or it is symptomatic treatment, treating certain symptoms with the
assumption that once the symptom is controlled then the illness will subside. It has to
be noted that laboratory tests were prescribed along with the medicines, in which case
the role of laboratory test in the very process of diagnosis needs to be examined. For
the physician, there are several instances when exact diagnosis hardly happen, when
the presence of an infection is identified and treatment is given to reduce the
symptoms which eventually reduces the illness. The physician also added that the
exact cause of the infection (viral or bacterial) may not be known as it is the
assumption that majority of the infections are viral infections.

Case 6: A case of a first-year nursing student who consulted the physician of her
teaching hospital [District Hospital] with complaints of fever, cough, cold, and body
pain for two days previous to the day of visit. The physician after examining the
patient said it is viral fever and wrote in the prescription as viral fever, indicating a
probable case, and thereafter prescribed Amoxycillin, Paracetamol tablets and
Cloxacamine along with other drugs. Later, during the follow-up of the patient, it
was found that the fever she had was mild and subsided within a week. On detailed
inquiry it was found that she had already taken Paracetamol and Ampicillin tablets
before consulting the physician.

This Case merely demonstrates one instance of a common practice where antibiotics
were prescribed for Viral fever as well as self-medication (and that too antibiotics)
among health professionals. The usual justification given by those who prescribe
antibiotics is that it is to avoid secondary bacterial infection. This is strongly critiqued
by a leading physician as,

It is important to remember that not all fevers are due to infections and not all
infections are caused by bacteria. The majority of the infections seen in
general are viral and antibiotics can neither treat viral infections nor prevent
secondary bacterial infections among patients (The Hindu, 17th July 2006).

A physician who was the head of the infectious disease unit in one of the medical
colleges in Kerala also shared similar ideas. The above cases on therapeutics not only
demonstrates the gap in the expert knowledge and the everyday practice, but also raises questions on the modalities of treatment—whether a final diagnosis should be made a prerequisite for initiating treatment. Extending this further comes the larger question on what ought to be medical care as efficient diagnosis can only determine the prognosis and therapeutics for any illness thus making the former the major component of medical care.

5.9 Demonstrating Macro Influences within the Microcosm of Medical Work

Until now, the purpose was to demonstrate the nature and characteristics of core medical work. This was largely based on the identification of the hospital as a microcosm where the influencing factors are mostly manifestations of the nature and kind of medicine (biomedicine) propagated and practised. These factors are largely embedded in the philosophy and cultural assumption of modern medicine, which Vishwanathan (1997) identifies as internal factors. There are other sets of factors like organizational, changing policies of government as well as increasing corporatisation, which he calls the external factors. The forthcoming section is an attempt to demonstrate the interplay of the external factors within the same kind of medical work occurring in the microcosm of a hospital. The cases below highlight some of them.

5.9.1 Physician Influenced by Societal Discourse of an Epidemic

Case 7: Mahesh Kumar, 14-year old boy reached the CHC with complaints of fever for the last four days. The boy was accompanied by one of the health assistants in that area, also the boy’s neighbour. As there was a case of Dengue reported near the boy’s neighbourhood, the health assistant suspected the same for the boy too. The interaction between the doctor and the patient was as follows:

D: what is your illness?
P: fever
D: fever means temperature or runny nose, for how long?
P: four days
D: do you have cough, runny nose?
The health assistant, who is also the friend of the boy’s mother said: I doubt whether he has Dengue
D: who had dengue fever?
The health assistant: in the neighbourhood
The doctor has prescribed test specifically for Dengue and also prescribed medicines for three days for fever.
Patient again came to the health centre after three days with body rash, redness in eyes.
D: after examination found that the test for dengue was negative but prescribed medicine for another six days.

As per the medical record it was written as ?Dengue, indicating it as a suspicious case of Dengue based on initial finding. Later, from a visit to the patient’s
household, it was found that the child had suffered from Measles, confirmed from another nearby clinic and he recovered within two weeks.

During the two interactions with the doctor, the diagnosis did not happen possibly due to the doctor’s presumption that it could be Dengue fever. Even in the absence of any diagnosis, medicine were prescribed which questions the purpose of diagnosis as well as the rationale of treatment. Moreover, in a society where there is threat of any epidemics like Dengue, Leptospirosis or Viral fevers and fever being the major symptom for these diseases, it is highly possible that the physician can skip simple diagnosis like Measles. This is probably due to the fact that diagnosis becomes possible through intuition, which in turn, is influenced by the societal discourse on diseases.

5.9.2 Hospital—for Surveillance or for Treatment

**Case 8:** Jiju Sabu, 18 yrs, first-year nursing student at Bangalore, the only son of a widow mother, working as a Junior Public Health Nurse (JPHN) near her hometown, came to the Immanuel hospital. His mother told Jiju to come directly to the hospital on his way from Bangalore back home, where both of them would meet at the hospital and consult the doctor thereafter. Things worked as planned and the boy reached the hospital for consultation after an overnight bus journey. The consultation with the physician is given below:

D: what is your illness?
P: fever
D: for how long?
P: around one week, Mother of the patient added: Dr, he is in Bangalore and there is Measles and fever everywhere. There are rashes on his back and he is not taking food.
D: after examining the rash says, “it is not measles, and the patient's record shows history of sinus” after looking at his case record.
D: please cough (asked the patient to cough)
P: Uh!! Uh!! (Coughing)
D: uhm, should be admitted. You will have to take various tests and if the results are normal, you can leave. The doctor prescribed for x-ray and routine lab tests and advised for admission.

Once the results were available from the lab, it was found that the values were normal. During admission at the hospital, drip was administered and usual in-patient care was rendered. On the fourth day, the patient was discharged from the hospital. The diagnosis as per the medical record was fever and sinusitis.

Here it has to be noted that the mother’s behaviour appears to be that of a highly medicalised kind, partly due to her profession and partly because of her concern for her only son. This is reflected from her awareness about the communicability of Measles and considering rashes as its symptom. Moreover, the mother’s comment that “there was rash in the patient’s body and the patient is not taking food” appears to be
based on patient’s explanation to his mother about his living at the new place (hostel life) as the patient was away from his mother at least for a week. The purpose of admission for the hospital was for better diagnosis rather than due to the severity of the illness. For the mother, the increased health consciousness leads to increased perception factor about her son’s illness. This is reflected in her explanation to the physician about the illness as well as the decision to consult the physician immediately after a bus journey (overnight) of 12 hours in which case any human being will be weak. This case raises some serious questions: What should be the role of physician in handling patients who are highly consumerist? What is the purpose of admitting a patient to a hospital? Is it the seriousness of the illness, or for the purpose of carrying out an effective diagnosis? Should medical care be based on patient demand when patient satisfaction becomes the key word of quality in a medical-industrial complex?

5.9.3 Insurance Coverage- Criteria for Hospital Admission

Case: 9 Anwar, 22 year old man working as a salesman in one of the leading wedding centres of the city went to the Immanuel hospital with complaints of fever, headache and cough. The details of the consultation with the physician is given below:

D: what is the illness?
P: fever, headache and occasional cough.
D: for how long?
P: two days
D: what is your job?
P: salesman in a wedding centre
D: Do you have vomiting tendency?
P: no
Dr after examining the patient’s body using stethoscope asked the patient to cough
P: uh! uh! (coughing)
D: will you blow your nose?
P: sometimes
D: never blow your nose (‘nose’ and ‘blow’ in English)
P: eh!!!
D: I mean never blow your nose (in Malayalam)
D: Get your x-ray and lab tests done.
(The patient comes back with the x-ray and lab test results and meets the doctor)
D: steam inhalation needs to be carried out using Vicks, Is admission required?
P: yes
D: there is no need for that. Oral drugs will be enough and if you need admission, I can do that.
P: admission is required, Dr.

The x-ray result as well as the laboratory test values was normal. It was found that during the period of stay at the hospital, the temperature of the patient was stable and the diagnosis as per the medical record was fever, vertigo, URTI, allergic sinusitis. Here, except URTI, all the rest were symptoms and the hospital treated the
patient with injections and intravenous transfusions. However, the patient was discharged on the fourth day.

**Case: 10** Peter Thomas, 20 years, working as a salesman in the same wedding centre mentioned above, went to the Immanuel hospital with fever and cough. In the consulting room there was a senior physician (Sr. Dr), who consults the patient and a junior physician (Jr. Dr), who recently joined the hospital to assist the former. The interaction between the physicians and the patient is given below:

Sr. D: what is your illness?
P: fever and cough
Sr. D: for how long?
P: two days
Sr. Doctor examines the mouth and nose of the patient and thereafter examines the patient’s chest with a stethoscope. The junior doctor was in charge of the case sheet writing and was entering the details of the patient based on the interaction. After examining the patient, the senior doctor turned to the junior doctor and started prescribing medicines loudly for the junior doctor to write on the case sheet: “cough syrup, expectorant, paracetamol”
P: (Interrupting): Dr, I need to get admitted
Sr. Dr to the Jr. Dr: “Ah... then write for admission”, again continuing “Cosome expectorant, paracetamol, ...”
P: Dr, this is to get claim
D: You’ll get money, isn’t it?
P: Ahh-- , it is a mediclaim clause.
The patient was admitted and a lab test was not carried out and was discharged on the second day. During his hospital stay, his temperature recorded was steady (98.3 F) and usual in-patient interventions like intravenous infusion and injections were given. As per the medical record, the diagnosis was URTI, Fever and cough for two days.

The two cases above were of patients working as salesmen in one of the prominent wedding centre in the city. During follow-up discussions, it was found that all the employees working in the shop have health insurance coverage for which they have to pay Rs 202/- annually as premium amount. The criteria for getting insurance claim is at least 24-hr hospitalisation in specific hospitals and hospital expenses up to rupees 25,000/- will be paid by the insurance company. If medical care were not availed from those hospitals enlisted by the insurance company then the money would be reimbursed only later after providing the bills and the details. Thus in case of any illnesses among the staffs of the wedding centre, their usual preference would be the Immanuel hospital mentioned above, one of the hospitals enlisted by the Insurance company. Moreover, costlier wards were the option of the patients, as the insurance company spends the amount.

The latter case demonstrates not only the influence of external factors like health insurance but also the socialisation of junior physician in a hospital set up. Besides, it has to be noted that despite the fact that the temperature of the patient during his
hospital stay was stable, it was officially written *fever* in the medical record (*scientific recording*). Later, during follow-up, the patient said that the illness was a minor one and he was cured by the second day. The preference to get admitted in hospital for the patient is also because there would not be anyone to take care of them as they are staying away from their home as well as the fact that sick leave is allowed in the shop they work. The above case raises the earlier question on the role of hospital and hospital care in the context of insurance companies entering the health sector that are already in a medico-industrial complex. In other words, is it possible to render health and medical care as a consumer good where patient (consumer) satisfaction can be made the criteria for good quality?

5.10 Conclusion

This chapter is an attempt to closely examine fever care as it is rendered in the Allopathic hospitals of Kerala within the context of medical care in the state. The historical analysis reveals how medical theories about disease and its cure has shaped the nature of medical practice, whether it is at the time of Bichat, or Broussais when symptomatology has recovered its role, later Virchow's cell theory, Pasteur's germ theory, or Koch's postulates and so on. It is obvious that Pasteur's germ theory and Koch's postulate became the basis for explaining the *cause* of a range of communicable diseases, viz. Malaria, TB, Cholera, Measles, etc. whereas the theories of Bichat, Broussais, Virchow and lastly that of Claude Bernard seems to be applicable to explain its *effect*. The former three were concerned with the site of infection, whereas Bernard's was based on the human body (physiology) and the functional change disease has made to it (pathology). In contemporary medicine, the search that was started by Bichat at the tissue level has advanced up to the genetic level without any knowledge of what causes this change in the body constitution (Conrad 2005). This becomes clearer when one finds that for communicable diseases, causative agent might be important but for non-communicable diseases where multiple factors contribute, Bernard's theory that pathology is the quantitative variation of the physiology appears to be the guiding principle. The latter seems to be true not only for non-communicable diseases, but also in cases when causative agent could not be found, especially for some Viral infections.
Practising physicians in everyday life does not necessarily investigate diseases at the cellular level or beyond, not only because it calls for better infrastructure, time consuming and huge cost of treatment, but also because of its minimal contribution towards the efficacy of treatment. Rather, laboratory tests, or other medical technology that aid only in measuring the abnormality (pathology) due to the disease under study is widely used in rendering care that does not help in identifying the causative agent and therefore escape the valid diagnosis. This tendency led to the practice of using lab tests like ESR, Platelet count, Serum bilirubin and so on as benchmarks by which the healthy and diseased bodies get demarcated. Thus, virtually disease definition depends more on these values wherein the purpose of treatment becomes to restore these abnormal values. Further, Laboratory values, one of the indicators of the disease gradually become the disease defining criteria as in the case of Dengue fever, where platelet count, once an indicator of Dengue fever is now widely used in Kerala as a test for Dengue. Similarly, it has to be noted that blood pressure once an indicator of heart-related disorders, has now become in its own right a disease condition viz. hypertension or hypotension with the normal value of 80-120 mm of Hg being the criteria for defining normal blood pressure. In other words, dependency on medical technology in general, and laboratory tests in particular, cannot be attributed merely to the market forces that are benefiting from this but beyond that, the changing nature of medical practice guided by the prevalent medical laws do contribute significantly to these dependence.

This dependence also results in a medicalised society as revealed by the tendency among the public to get lab tests done without the doctors prescription and coming to the hospital with abnormal ESR values as well as Serum bilirubin values without any visible illness. It is this dependence on medical technology and therefore normality that not only sidelines the real clinical presentations (illness) which were the starting point of ill health, instead an ideal normal body becomes the definition of a healthy body. Additionally, the chapter reveals how even in the absence of valid diagnosis, treatment is being carried out. The close examination of the nature of diagnosis also demonstrates the gaps where a final valid diagnosis hardly happens in case of fever and how at times, the same illness is officially recorded as one and is communicated differently to the patient. It was also clear that the procedure with which diagnosis happens does not necessarily follow the basic criteria of medical practice revealed in
the diagnosis of Pyrexia of Unknown Origin (PUO). The claim of biomedicine that
treatment is for the disease (causative agent) no longer becomes valid as demonstrated
by the cases on treatment modalities. This is obvious from the real-life situations in
which treatment is rendered in the absence of any valid diagnosis as well as the
practice of prescribing antibiotics for viral fever both points towards the irrational use
of drugs.

This, according to Jewson (1976), is the characteristic of laboratory medicine when
two hostile career systems emerges both as a research worker and as a medical
practitioner. Moreover, medicine ceased to be a subject defined by its explicit and
exclusive contents, and instead became an applied science, consisting of a
pragmatically-derived range of disciplines and techniques distinguished by its specific
purpose that ultimately resulted in further eradicating the person of the patient from
the medical discourse. These led to the classification of illness as a biochemical
process or as an outcome of an organic lesion, where analysis and explanation became
the occupational task of the medical investigator instead of the earlier act of diagnosis
and classification (Jewson 1976). Thus, at one hand, there is the changing nature of
medicine itself where medical knowledge and medical practice is highly dependent on
the medical technology and laboratories that play a key role. On the other hand, we
have the commercial and corporate forces that are ready to utilise the gaps in the
medical practice that are internal to the philosophy of medicine itself. In other words,
biomedicine due to its lack of scepticism towards the profession and its
philosophy offers a cultural milieu for the market forces to exploit the
beneficiaries in the name of medicine. In short, instead of targeting at rational
prescription of laboratory tests and drugs, it is high time a rational practice of
medicine needs to be aimed at. This should address the prevalent medical knowledge,
the philosophy of medicine and its logic of practice rooted in the primary aim of
medicine, viz. help patient get rid of their illness (un-wellness).
6. Voice of Illness and Voice of Medicine in Doctor-Patient Interaction

Medical care achieves its salience through the processes of diagnosis, treatment and follow-up. These are usually accomplished by the active group effort of doctors, patients and other paramedical staff through health institutions. The roles played by doctors and patients become pivotal in the above process of medical care. The role played by the patient should not be seen merely as a recipient of medical care but as a partner in the total effort in the cure of disease because it is the patient or his/her relatives who first identifies the problem and seeks treatment. This becomes a necessary condition for the recovery of illness as well as medical care. Apart from this, the whole process of medical care that transforms lay category of illness to a medical category, viz. disease is facilitated through these interactions. In other words, doctor-patient interaction can provide an expert and a lay interpretation of the same event, which in turn reveals the context and the reasons for these interpretations. The present chapter is an attempt to examine in detail the interaction between doctors and patients in the process of fever care rendered by the Allopathic hospitals of Kerala. Doctor-patient interaction is an area that has been studied extensively by social scientists though their focus varies widely. This is obvious from Mechanic's (1976) studies from a Health Maintenance Organization (HMO) outlook, Waitzkin (1979), owing to Friedson's [(1970), 2001] professionalisation of medicine approach from a professional-client relationship perspective and lastly the changing doctor-patient relationship in the context of commercialisation of medical care addressed by McKinlay and Stoeckle (1988).

6.1 Doctor-patient interaction as Narrative

Unlike the above studies, the focus of this chapter will be on analysing doctor-patient interaction as a narrative that can be read as a text for further analysis. The suitability of narrative analysis in clinical encounters is dealt by Mattingly (1994: 811) as: “Narrative plays a central role in clinical work not only as a retrospective account of past events but as a form healers and patients actively seek to impose upon clinical time”. This becomes clear as (illness) narratives are extensively used to understand patients’ representations and experiences of illness as well as to provide a temporal frame (clinical time) for therapeutic events. The moment doctor-patient interaction is seen as a narrative the scope
of analysis widens as it can be a tool to situate the physician and patient in their socio-cultural milieu as well as a means of communication, whose further analysis provide the meaning given by both the actors to a common event, viz. illness. This is because narrative can be studied as a mode of discourse—as text or as performance (Mattingly 1994). This is further clarified as,

Narrative is used when we want to understand concrete events that require relating an inner world of desire and motive to an outer world of observable actions and states of affairs” (Mattingly and Garro 1994: 771).

Narrative thus makes it possible to understand not only the past experiences but through that the present understanding of that experience and the future options perceived within the given socio-cultural context. As narrative is about experiences, it is through stories that narratives are produced where stories itself are outcomes of experiences of the actors within their respective context (socialization). The linkages between narrative and life stories have been dealt extensively by many scholars. It would be inappropriate to give their details at this juncture (Mattingly and Garro 2000, Frank 1995). It is this narrative or life stories that are further analyzed by the researcher as a text based on the patients’ socio-cultural milieu (socialization). Thus, the model in which experience leading to narrative and narrative to text and text further reshaping the experience is in itself inadequate as the role of socialization of the actors as well as the researcher in the formation of narrative as well as the text is not adequately addressed. This inadequacy is tackled by introducing the concept of institutions, at each juncture, that is, during translation of experience to narrative and narrative to text and text further reshaping the experience. The concept of institutions used for this study is based on Saris (1995) work about a schizophrenic patient whose details will follow in the next section.

6.2 Institutions in Narrative

Jamie Saris (1995) in his paper on illness narratives addresses the above problem by elaborating narrative, or in his terminology, the conditions of narrative production more convincingly. The translation of experience to narrative and narrative to text, according to Saris is shaped by the institutions that are prevalent in each social context. The concept of institutions put forth by Saris here is a courageous attempt to encompass the prevalent socio-cultural milieu. He defines institutions:
...as bundles of technologies, narrative styles, modes of discourse, and as importantly, erasures and silences. Culturally and historically situated subjects produce and reproduce these knowledges, practices and silences as a condition of being within the orbit of the institution (ibid. 42).

He furthers his description by elaborating institutions as helping to constitute stories as well as being sites of narrative productions thereby problematising the relationship between experience and the development of that story about that experience (narrative) in such a way as to focus the analyst’s attention on the specific circumstances of the social field in which narratives are developed and deployed. Moreover, narratives as text would ensure a thick description that would demonstrate a better picture of the social context in which the narrative is embedded (ibid.)

Unlike the usually followed clock time or serial time, that follows one after the other, narratives follow narrative time where the time itself is dependent on the events explained with a beginning, middle and end (plots). Mattingly (1994: 812) used the concept of narrative time and emplotment in the analysis of clinical interactions. For her, emplotment involves making a configuration in time, creating a whole out of a succession of events (plots) (ibid.). She elaborates that narrativity and particularly, the work to create a plot out of a succession of actions, is of direct concern to the actor in the midst of action. Narrative analysis used in clinical interactions generates sufficient space for adequate understanding of the actors’ (doctors and patients) perspective about the illness as well as their future plans for the same. As Mattingly (1994: 821) says,

A narrative analysis offers a way to examine clinical life as a series of existential negotiations between clinicians and patients, ones that concern the meaning of illness, the place of therapy within an unfolding illness story, and the meaning of a life which must be remade in the face of serious illness.

It is this perspective of narrative—a narrative that is shaped by the institutions—which is used to analyze the doctor-patient interaction in the context of fever care in Kerala.

6.3 Dominance in Interactions
One of the important aspects of doctor-patient interaction that has been studied extensively is the behaviour of actors. Several models have emerged to explain these behaviours (Emanuel and Emanuel 1992). From a purely sociological perspective, these
explanations are not in any way different from the usual explanation of social action and therefore scholars have used the functionalist perspective as well as structuralism to explain the above interaction (Fisher and Groce 2004). It is obvious from the range of studies in this field that the dominance of the physician is accepted by most of the scholars, though the nature and the reasons for domination might vary (Mechanic 1976, Waitzkin 1979). The attempt here is to examine this dominance of the physician more closely and thereby try to propose a possibility of revitalizing patients’ role based on extracts from clinical interaction. Friedson’s [(1970), 2001] concept of professional dominance has been one of the most influential work of those who studied clinical interactions.

There are also studies that have looked only at the verbal strategies during doctor-patient interaction that led to the identification of interactional form of dominance as being more important than professional dominance. This is because certain analyses confine only to interruptions, specific types of questions and turns during conversations without adequately addressing their context. Hak (2004) addresses this inadequacy using Friedson’s concept of professional dominance, which implies an asymmetrical distribution of specialized, professional knowledge that situates interactional dominance merely as an outcome of the expert knowledge of the physicians. It is therefore the experts’ pronouncement of the disease and its solution that results in the persuasion of patients to a particular way of life through dominance. Thus, Hak (2004: 353) offers a two-fold definition of professional dominance:

First, that particularly in matters of health, the opinions of laymen are subordinated to the opinions of professional experts; second, the profession’s legally guaranteed exclusive right of access to goods and services the layman needs.

To elaborate, it is the social structures prevalent that authorises the expert knowledge and health institutions alongwith the power of the doctor to provide solution to patients’ illness, which in turn can lead to interactional dominance. He further argues that the physician, having an upper hand in the extent of knowledge about the patient dominates naturally with respect to the time of interaction and hence the encounter cannot be treated merely as a form of interactional dominance, but as an interactional form of professional
dominance (ibid.). Thus, interactional dominance when examined within the context of the social structures and institutions becomes an interactional form of professional dominance that facilitates an in-depth analysis.

6.4 Voices of Interaction

It will be argued here that both these approaches of analyzing doctor-patient interaction either merely as an interactional form of dominance based on verbal patterns or negating the relevance of the interactional form and thereby glorifying structural dominance alone is inadequate. These approaches obsessively focus on the doctor-patient dyad where each partner is taken as two sets of contrasting interests, orientations and stocks of knowledge (Atkinson 1995). Instead, Mishler’s (2005: 320) concept of Voice will be used to analyze these interactions. He argues that,

Voice represents a particular assumption about the relationship between appearance, reality, and language or, more generally, a “voice” represents a specific normative order. Some discourses are closed and continually reaffirm a single normative order; others are open and include different voices, one of which may interrupt another thus leading to the possibility of a new “order”.

Thus it has to be understood that the idea of voice does not equate with a speaker. One speaker may articulate more than one voice; different speakers may share the same voice. Different voices distinguish contrasting orientations to the world and to the moral order as each voice realize a particular relationship between the speaker and the world. For Mishler (2005: 321), in clinical interaction, two different voices representing different normative orders were identified; viz. the voice of medicine and the voice of the lifeworld. He argues further that the voice of medicine dominates the voice of lifeworld in the medical interview where occasionally it is the patients’ who articulate the voice of lifeworld (based on their personal experiences and preoccupations) which gets overlooked by the voice of medicine. The whole clinical interaction then is seen as a struggle for dominance, the voice of lifeworld occasionally interrupting the voice of medicine (Mishler 2005). The above approach of voice situates the clinical interaction as a dynamic one where the power of the patient is also acknowledged by locating both the patient and the doctor within their socio-cultural context. Similar to the above argument, Saris (1995) based on the narrative of a person diagnosed with schizophrenia demonstrates how at several junctures, the institutions of medicine and their categories
lack insight in understanding and tackling the problems faced by the person due to the illness. He also demonstrates how the institutionalised authority of professional expertise reflected in the power to name thereby silences and erases other experiences and knowledge. The above approaches based on discourse analysis portray doctor-patient interaction as an everyday activity of human beings whose meaning becomes obvious on contextual analysis.

6.5 Voice(s) of Medicine

The above perspective is however limited by dichotomizing the character of the clinical encounter to only two voices, where the voice of medicine is itself seen as homogeneous. Atkinson (1995: 130-142) in his study among hematologists demonstrates how within medicine, different voices are articulated and how they can be in conflict with each other. This he elaborates by explaining that the voice of medicine constitutes the voice of experience and voice of science. He explains the voice of experience as a voice of accumulated experiences and a biographical warrant for knowledge and opinion. By voice of science, he means an articulation of knowledge warranted by an appeal to research viz., published scientific papers as well as textual knowledge. It is obvious that a clinic is a place with a specific purpose, where largely the voices articulated by the patient will be illness-related or that which aids illness-expression.

Thus, based on Atkinson’s and Mishler’s insights on clinical encounter, I would like to argue that it is the voice of illness that will be heard. This obviously would be based on the past experiences, perceptions and worldview (lifeworld). In a medicalised society, it is possible that the voice of illness itself will be medicalised thereby articulating a medicalised voice of illness. Thus, there can be different voices that are in constant interaction during a doctor-patient interaction. They are the voice of experience and the voice of science together constituting the voice of medicine owing to Atkinson and the medicalised voice of illness and lifeworld voice of illness, where the latter concept owes to Mishler together constitute the voice of illness. Thus for the analysis of doctor-patient interaction in fever care in Kerala, the following model will be used as there can be voices of illness and voices of medicine. The Voices of illness can be further divided into
*lifeworld voice of illness* and *medicalised voice of illness*. *Voices of medicine* can be further divided into *voice of science* and *voice of experience*. During clinical interactions, most of these voices get articulated. An analysis of these will be carried out as these voices do have a bearing not only on the prevalent discourse, but also on the process of medical care. The above voices in themselves should not be seen as all encompassing, as there can be several other voices which may not fit in any of the above categories. Moreover, the dynamics of these various voices again depend on the context of interaction as well as the actors involved.

### 6.6 Voice of Illness

Jincy Joseph, a 17-year old girl studying in class XI, went to a practitioner in the Immanuel hospital accompanied by her mother and a neighbour. She reported body pain, fever and headache. She belongs to a middle-class family where her brother, working in the military service, is the major source of income for the family. Her parents are educated till the tenth standard and they run a small *pettikada* (a small shop-like structure where lemon juice, some sweets, soda, chewing items, cigarettes etc. are sold). The hospital she went for consultation is a speciality one with a bed strength of more than four hundred (the Immanuel Hospital), a fully equipped laboratory with blood gas analyser, blood bank, intensive coronary care unit, paediatric intensive care unit and neonatal intensive care unit (with ventilator facility), Neuro-intensive care unit and Radiology (24-hr. X ray) department. Besides, a diabetic clinic and a 24-hour emergency care are also functional in this hospital. The physician she consulted is the one who completed his medical degree from one of the leading medical colleges of the country and did his post-graduation in general medicine. He has been practising since 1972 and has been the physician of this particular hospital for the last eight years.

After completing the registration procedures of the hospital, the patient alongwith her mother and neighbour entered the consulting room for consulting the physician. Their interaction was as follows: D- Doctor (physician); P- Patient, MoP- Mother of the patient.

1D: what is your illness?  
P: fever, severe pain in the legs  
1MoP: severe weakness and headache.  
2D: Was there swelling? (swelling used in English)  
2MoP: she is very weak and at times, there is swelling on the side of the feet. Sometimes there is difficulty in breathing and back pain. Especially after coming back from the school she is very tired.  
3D: is it hereditary?  
3MoP: no  
4D: show your tongue, open your mouth. Is there recurrent throat pain or any other illness?  
P: Ahh!! no
Doctor did physical examination by examining the mouth, by pressing the abdomen, stethoscope examination was carried out and then prescribed ECG, routine blood and urine tests.

4MoP: What is the disease, Dr?
5D: I need to see whether it is the initial stages of arthritis. Anyway let me have a look at the test results (arthritis used in English).

Then the doctor asked the patient to come on the next day.

(On the second day Doctor after checking the lab test results said: “lab test results are normal and the illness could be due to excess strain due to travelling. Medicines for swelling and weakness are written”.

As the consultation ends, the patient collected the medicines from the pharmacy and left home. Later, on examining the medical case record, it was found that neither any diagnosis nor any symptoms were written on the case record unlike other cases where at least the symptoms were written. All the lab test results lay within the normal ranges. The name of the medicines (Valz, Radiplex and Complet) prescribed was also written on the case record. Later, during the follow-up of the patient at her home a month after, it was found that she continued to suffer from the illness. Moreover it was discovered that before coming to the above hospital, steam inhalation was done at her home for the illness and thereafter was consulted in a small clinic near their home from where a tonic (a kind of syrup usually taken to resist weakness and enhance health whose name they did not remember) was prescribed. This clinic was run by a qualified Allopathic doctor where there was no facility for in-patient care but had basic laboratory facilities. As the illness was not subsiding had they come to the earlier mentioned hospital.

During my conversation with the mother about the illness of her daughter, she said that,

...(she) complains of weakness everyday and invariably goes to sleep as soon as she comes home from school. She is not able to study properly. She doesn’t help me in any household work. She is very lazy and she complains of weakness...as the illness was not subsiding and news of epidemic diseases made us think that the illness could be serious we decided to do a complete check-up in the highly-reputed private hospital.

The above is the case of a girl having complains similar to the ‘kkk’ syndrome, because of which she is unable to study as well as to do daily household duties. During the clinical interaction, it was obvious that this problem was not addressed adequately.

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1 Based on the discussion with laboratory staff of private hospitals and medical college hospital laboratories, it was found that for any disease with fever as the symptom Routine blood and urine test that comprises of the following are prescribed—In urine, albumin and bile pigment is looked for and in blood, Erythrocyte Sedimentation Rate (ESR), White Blood Cell (WBC) count [Total and differential count (TLC, DLC)], Platelet Count, Urea level, Serum Bilirubin, Serum Amylase and Creatinine Phospho Kinase (CPK). None of these indicate the direct presence or absence of any bacteria or virus, rather this is an indication of the physiological functioning of human organs (systems), viz. liver, and kidney and therefore also known as liver function and kidney function tests. These tests are carried out usually to aid the nature and kind of treatment rendered.

2 ‘kkk’ syndrome is a term coined by the general practitioners in South India for “kai kaal kodachal”(in Tamil) meaning weakness of hands and legs, in which the medical reasons are many-a-times unknown.
Instead, the fact that the search for symptoms by the physician dominated the interaction was revealed by his question (2D). It has to be noted that despite the expression of the problem by the mother (2MoP) based on her experience of her daughter’s suffering, it got sidelined by the subsequent direct question of the physician (3D) on heredity. Thereafter, the physical examination portrays how the voice of medicine dominates the lifeworld voice of illness during the clinical interaction. It appears that the major purpose of the physician’s consultation was to collect information regarding medically-acceptable illnesses. In other words, the mother of the patient presents the illness from the abnormality of social body (2MoP) whereas the physician first inquires about heredity to find some lead (3D) on the abnormality of physical body (physiology) reflected in physical examination (4D) and later to the technological aid (5D) for diagnosis. Moreover, the doctor fails to convey the purpose of questioning to the patient. This leads to one-sided interaction where the patient becomes a mere object in the whole process of therapeutic care. It is interesting to note that the use of the term swelling and Arthritis in English language also shows the intense urge of the physician to fit the patient’s complains that are lay (problems) into textual medical categories. In other words, this was the moment at which the translation of lay category, illness, to medical categories whether it is a symptom (swelling) or a suspected disease (possibility of arthritis) happened.

The above case also demonstrates the management of uncertainty during clinical interactions where a valid diagnosis or any symptoms is not identified. Despite this, medicines were prescribed. This becomes clearer as in the initial stage, the doctor expecting a possibility of hereditary factor (3D) and then before laboratory test a possibility of Arthritis was opined (5D). Later, the concluding statement confines only to swelling and weakness, which was again up to the symptom level. Atkinson (1995: 113-17) in his study among haematologists demonstrates how uncertainty has become an important characteristic of contemporary biomedicine. He elaborates the relevance of close examination of the process of everyday medical work as,

It is necessary to pay rather close attention to how uncertainty or certainty are actually conveyed in the course of everyday medical work...There is need for detailed examination of how medical practitioners, students, scientists and others
express and discuss their information how they voice their opinion and how they claim particular warrants for the knowledge and interpretations they endorse (ibid. 17).

He cautions the need to examine and understand the context of uncertainty or certainty and how these are accomplished in everyday medical work. The implications of the outcome become more of the question of power-knowledge relation prevalent in the society. Fox (1957) examines how doctors as part of their medical training, get socialised to manage uncertainties at various levels of medical care thereby internalising this ability as an achieved quality of the art.

6.7 Medicalised Voice and Voice(s) of Medicine

Ramachandran, a 31-year-old married man, a commerce graduate working in a private finance company went to a private hospital with complaints of fever and body-pain. He belongs to a middle-class extended family comprising of his parents, two younger brothers and a younger sister. The hospital where he took treatment is the same private speciality hospital (The Immanuel Hospital) mentioned earlier, with bed strength of more than four hundred with a fully equipped laboratory (with blood gas analyser) and so on. The physician he consulted was a younger one around 36 years, with a medical degree as well as a post graduate degree in general medicine. The physician has been practising for eight years of which seven years were in the above-mentioned hospital. The doctor-patient interaction during consultation was as follows:

1D: what is the illness?
1P: fever and body-pain
2D: for how many days?
2P: around two-three days
3D: was there vomiting present?
3P: no, there are rashes on the body
4D: Take off your shirt and turn back (Ramachandran’s body was full of rashes)
[Investigations was carried out by the physician using Stethoscope. He later examined patient’s mouth using a tongue depressant]
4P (while examination was going on): I have been taking medicine for jaundice. My serum bilirubin was tested from a nearby lab and the value was 1.1.
5D: Have you heard of Measles?
5P: No
6D: It is a viral infection, and the typical clinical symptoms are shown. (viral infection and typical clinical symptoms used in English)
7D: you are getting admitted, aren’t you?
6P: Yes

As the patient got admitted, routine blood tests were initially carried out. The platelet count was tested everyday until the third day when the patient was discharged from the hospital. At the time of discharge, medicine was prescribed for one more week. The patient was relieved of the illness only after ten days from the day of discharge. As per the medical record, the diagnosis was “? Measles with URTI”, indicating that the physician suspected the patient’s disease to be Measles with Upper Respiratory Tract Infection. On talking with the physician about fever care, especially the need for laboratory tests in diagnosis he opined that “all fever except viral fever need basic laboratory parameter support”. He also added when asked about the platelet count and
its relevance that "Unless and until platelet count becomes normal we cannot discharge a patient". Later, during follow up at the patient’s residence about the illness, the patient commented:

...as there was discoloration in urine together with body pain and rashes in the body, I checked S. Bilirubin from a nearby lab and as the value was higher than the normal, I went to the hospital.

In the above interaction after the initial problem identification session, the urge of the physician for the medically-relevant information becomes clear as it sidelined the patient’s doubt (4P) about Jaundice. The way the physician ensures/justifies his finding to himself is visible in his use of terms like viral infection, typical clinical symptoms in English (6D). This is because these are the textual terms that shape the physician’s thought style or clinical mentality. It appears that in a place where English is not the mother tongue, the use of English terminology during clinical interaction has to be seen as the point at which the translation of clinical presentations (patient’s illness) to textual knowledge (medical categories) occurs. The moment the patient felt that the examination was over and before the doctor reaches a conclusion, the patient submits his analysis about the illness, by pointing to the fact that he is taking medicine for Jaundice and his blood test shows an abnormal value (4P). Here, the fact that the patient associates Serum Bilirubin and its raised value to Jaundice, which is logically possible, is a way of expressing his illness in medical terms. In other words this is the medicalised voice of illness that can be heard in many clinical interactions. This medicalised voice may not always be correct, as it was in this case where the patient associates Serum Bilirubin and Jaundice. The response of the physician may be either acceptance or rejection. In this instance, it is clear that the physician rejected the medicalised voice of the patient and supplanted by authoritative voice of medicine—A voice of medicine where the clinical diagnosis overrules the laboratory values of Serum Bilirubin, the latter provided by the patient’s medicalised voice of illness. This is despite the fact that the physician is dependent more on laboratory tests for clinical diagnosis as well as for fever care as reflected in the physician’s response to the need of laboratory tests in fever care.

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3 It has to be noted that there are only few terms that are used in English in the whole clinical interaction. The medium of medical education being in English it is possible that physician’s have internalised medical categories and terminology in English only where their translation to local language (Malayalam) might not be their concern reflected in using those terms as such during clinical interactions.
The threat of Dengue fever prevalent in the society might have possibly influenced the doctor in suspecting the case as Dengue fever as reflected in his advice for admission as well as checking platelet count everyday until the day of discharge from the hospital. This is because cases of Measles are not admitted normally and platelet count, which has nothing to do with Measles, is used extensively by the private hospitals as a test for Dengue fever. In other words, the above case also demonstrates how during epidemics, threat and medicalisation influence each other forming a vicious circle that aggravates the process of medicalisation further.

This medicalised voice of illness has to be seen as an outcome of the patients’ past experiences with illness and the Western medical system, resulting in a state which Crawford (1980: 373) called healthism and medicalisation of everyday life. He argues that,

Past therapeutic experiences and notions derived from diffused medical idea as well as reinforcing ideological premises of the society acquired by other means pre-structure the encounter (therapeutic). The client (patient) is already, in a sense “professionalised”. In other words, persons being helped take on as their own some of their helpers’ theorised assumptions and explanations.

In the above case, it was the medicalised voice of illness that was heard. This very well goes with the above argument that the context of the patient offers a “professionalised” outlook about his illness as well as everyday life. A similar but different phenomenon that occurs during clinical interaction is the genesis of new categories. This is demonstrated in the following case.

6.8 Therapeutic Interaction, a Site of Knowledge Production

Saritha, a 21-year-old lady went to the Community Health Centre (CHC) with fever, headache and weakness. Her father accompanied her. Her family belongs to a lower income group where her parents are daily-wage labourers. Their family is an extended one with two elder brothers where the eldest is married and has two children. All of them stay together in a small house located in four cents of land. Saritha occasionally works in the cashew factory depending on the availability of job. The hospital they went was an upgraded Primary Health Centre (PHC) where majority of the lab tests except that of Malaria and TB had to be carried out at private laboratories situated on the premises. As there is overcrowding in the hospital, the duration of interaction is minimal. The physician was a 52-year old having a basic medical degree and
specialisation in child health and who has been practising for 25 years. The interaction between the doctor and the patient was as follows:

1D: what is your illness?
1P: fever, headache and weakness in hands and feet
2D: for how long?
2P: one week. Everybody in the house has this
3D: vishapani (poisonous fever) is there, could be that, it is better to get admitted.

The patient got admitted after getting the lab tests done. She was admitted for four days and was discharged after being prescribed medicines for one more week. As per the doctor, the illness was viral fever.

The purpose of the above case is to demonstrate how certain kinds of information during doctor-patient interaction gets internalised by the patient and how such information later forms a new category for the public. This was clear when the patient at her home during the follow-up visit said, “The illness was vishapani. This is not like earlier ones. There is something poisonous that enters the body. That is why this is very severe”. The doctor’s version about this illness makes the picture complete. His explanation was:

…it is just viral fever. Since the patients won’t understand it if we say ‘viral’ it is convenient if we use ‘visham’ (poison) instead of viral as the virus when it enters the body becomes poisonous.

The fact that this was indeed a physician-created category, created ostensibly for patients who may not understand was borne out by a number of other patients using the same category of vishapani to express their illness. One of the patients, who himself considered his illness as vishapani when asked about it, responded by saying: “last time I came with symptoms of fever and body pain then the doctor said that this is vishapani—a new type of fever with severe symptoms”. Here, it is obvious that the context of doctor-patient interaction becomes a site of knowledge production, a knowledge that can determine patient understanding and therefore patient behaviour during illness.

6.9 Conclusion

This chapter has been an attempt to make sense of doctor-patient interaction in a clinical setting as part of fever care. The duration of interaction was very short as the study was carried out for an acute illness like fever and also in local health institutions where the clinical interaction is minimal. The above cases provide a picture of how clinical interaction takes place in an Indian setting and how these interactions contribute to the
overall medical care. As mentioned earlier, clinical interaction is not merely the two-way communication desired for exchange of information. Instead, it is the product of the networks through which those actors involved are communicating. In other words, the interactions are the outcome of the influence or socialisation of doctors and patients in their respective contexts. This is similar to the notion of thought style in Fleck [(1979) c.f. Rochel de Camargo, Jr 2002] in the case of physicians; and lifeworlds (Mishler 2005) in the case of patients. It is in this context that the interactions between doctor and patient become the interaction of various voices where voices themselves are representations of illness from various realms. Kirmayer (2000: 169) deals with the real complexity of this interaction when he says that,

Doctor and patient are attempting to communicate, but their conversation is heavily constrained by the demands of the situation and their efforts to present an appropriate face to each other. Each speaks from a different position, which includes awareness of both the interactional context and its relationship to larger social spheres. Each speaks with the voice of the self but invokes the voice of others.

It has to be noted that the study was conducted in the state of Kerala where recurrent epidemics as well as deaths due to various kinds of fever were reported since the mid-1990s. This situation also generated a threat among the public about fevers that was an outcome of the media reports as well as several control programmes initiated in the state, the details of which are provided in Chapter 3. In the first case of the 17 year old girl, it is clear that the problem the patient put forth is a social one, where the patient and her mother tried to present the problem as an inability to perform everyday life activities. On the contrary, the doctor keenly searches for medically-valid findings that have physiological explanations. Two different notions about the same event are in fact the reflection of each of their lived experience and the respective role they perform. The doctor’s aim is to settle the issue by a diagnostic and prescriptive act whereas patient’s purpose is to seek relief. Here, I would like to draw your attention to the concept of institution offered by Saris mentioned earlier wherein all the three cases, the manifestation of institutions are varied. In the first, the threat about fever was a guiding force in the understanding of the patient about the illness, which was reflected in the patient’s response towards treatment-seeking. In the second case, Ramachandran articulated the medicalised voice of illness as the patient’s dependence towards Western
medicine in general, and medical technology in particular that ultimately reached a state of communicating illness in a language close to medicine. This Giddens [(1990) cf. Rochel de Camargo (2002: 830)] describes as:

...how lay people rely on expert systems in every day life, meaning the myriad of technologies that we interact with on a daily basis without really having a firm grasp on how they work.

Here the institutions with which the patient engages, be it the health institutions, the dominant discourse about fever in the society as well as one’s own experience with illness together constitute an important role in the patient’s understanding about health, illness and cure. This becomes obvious from the third case, where new category/knowledge (vishapani) is produced in a clinical setting, which is neither medical nor lay. It becomes impossible to draw a general pattern out of these interactions but the meaning of illness/disease and therefore the outcome will be determined depending on the institutions prevalent in which clinical interactions occur and the actors involved.