CHAPTER 3

EMOTIONAL INTELLIGENCE IN MEDICAL SECTOR

3.1 INTRODUCTION

Importance of Emotional Intelligence is increasingly being recognized and assessed across various professions. Managing emotions in social contexts are clearly important for success in a variety of interpersonal as well as career-related domains. According to much recent academic work, a good deal of successes and failures in life are not attributable to one’s cognitive abilities as measured by tests of IQ, but, rather are attributable to one’s abilities to form and maintain social relationships, portray ourselves positively, and manipulate how others perceive them. Those who lack such understanding may be said to lack Emotional Intelligence (EI), a type of intelligence that may be more important in reaching one's goals than traditional intelligence as measured by tests of IQ.

The Emotional Competence Inventory (ECI) was developed by Boyatzis ECI defines emotional intelligence as, “the capacity for recognizing our own feelings, and those of others, for motivating ourselves and for managing emotions well in ourselves and our relationships”. The ECI measures four aspects of emotional intelligence, Self-Awareness, Self-Management, Social-Awareness and Social-Skills. Accordingly these four domains were considered relevant for the construct of measuring emotional intelligence.
Doctors with higher trait EI are more likely to experience stress during unfamiliar surgical scenarios but are also more likely to recover better compared with their lower-trait-EI peers. Trait EI has implications for the design of effective stress management training tailored to individual needs and potential applications to surgical trainee selection and development. Emotional intelligence (EI) is a type of social intelligence that involves monitoring, discriminating between and using emotions to guide thinking and actions. EI is related to interpersonal and communication skills, and is important in the assessment and training of medical undergraduates.

The selective processing of information remains central to the concept of emotional intelligence and facilitates patient care. But since the introduction of the concept of EI, attempt has been made to measure the EI of undergraduate medical students. The most recent index which researchers have developed is the Mayer-Salovey-Caruso Emotional Intelligence Test. This test, which provides 4 scores, is based on their revised model of EI, which includes four ‘branches’ or abilities that are described as emotional identification or perception, use of emotions to facilitate thinking, understanding emotions and managing emotions. Scores on the MSCEIT are interpreted such that high scores represent the degree to which participants answers mirror scores that are reflective of the group (or expert) consensus. Other EI frameworks conceptualize and measure this construct as a combination of mental abilities and personality traits.

Bar-On, conceptualizes EI as comprising multiple dispositions relevant to emotional functioning, such as optimism and empathy. The Emotional Quotient Inventory (EQ-i) is designed to assess these dispositions using self-report methods. The base to construct this test is provided by a joint self-report/observer rating scale, the Emotional Competence Inventory better known as ECI.
Presently there is no scale available to measure the EI of medical undergraduates in the Indian scenario. Some related studies are-Medical Students Stress or Questionnaire by Dr. Sathidevi VK. Emotional Inventory Test (EIT) by Dr. Ekta Sharma. The present study was planned to focus and evaluate the relevance of EI as higher mental ability in medical students. Today all over the world medical education has become sophisticated enough to encompass numerous positive and negative challenges.

3.2 MEDICAL STUDENTS DISTRESS

In medicine, distress is an aversive state in which a person is unable to adapt completely to stressors and their resulting stress and shows maladaptive behaviours. It can be evident in the presence of various phenomena, such as inappropriate social interaction (e.g., aggression, passivity, or withdrawal).

Stress can be created by influences such as work, school, peers or co-workers, family and death. Other influences vary by age. This means that distress is the opposite of eustress, a positive stress that motivates people. People under constant distress are more likely to become sick, mentally or physically. There is a clear response association between psychological distress and major causes of mortality across the full range of distress.

- **Stress**

Medical students experience substantial stress from the beginning of the training process. Although some degree of stress is a normal part of medical training and can be a motivator for some individuals, not all students find stress constructive. For many individuals, stress arouses feelings of fear, incompetence, uselessness, anger, and guilt and can be associated with both psychological and physical morbidity.
Students use various coping mechanisms to process stress that vary by year in training and source of stress. The specific coping strategies that students use may determine the effect of stress on psychological and physical health and may determine whether stress has a positive or negative influence. Strategies that centre on disengagement, such as problem avoidance, wishful thinking, social withdrawal, and self-criticism, have negative consequences and correlate with depression, anxiety, and poor mental health. In contrast, strategies that involve engagement, such as problem solving, positive re-interpretation, reliance on social support, and expression of emotion, enable students to respond in a manner that leads to adaptation, which can reduce anxiety and depression and their effects on mental and physical health.

**Depression**

At the start of medical school, medical students have mental health similar to their nonmedical peers. Given that the aims of medical training include teaching graduates how to “promote health” and prepare for a career in an intellectually stimulating and socially meaningful profession, it is tempting to speculate that medical school would be a time of personal growth and enhanced health. Unfortunately, the contrary appears to be true, with numerous studies suggesting that students' mental health worsens during medical school.

Surveys in both the United States and abroad identify a high frequency of depression and poor mental health among medical students. In a study from the United Kingdom, more than one third of first-year students had poor mental health when measured with the General Health Questionnaire 12, which assesses anxiety and depression. Another study from the United Kingdom of that year students found that the incidence of poor mental health
on the General Health Questionnaire 12 doubled during the first year, increasing from 25% to 52%. Other studies have reported similar findings and suggest that this decline in students' mental health persists throughout the remainder of medical school.

In a 2002 survey of first- and second-year US medical students, 24% of students were depressed according to the Beck Depression Inventory. In a separate study, median Beck Depression Inventory scores increased 3-fold from the time of matriculation to the end of the second year, with 25% of students dysphonic, if not clinically depressed. Two additional studies of US students confirm a peak in depression during the second year of medical school, with gradual improvement during the third and fourth year of training. Despite the high prevalence of mental health-related concerns and ready access to mental health services, depressed medical students are no more likely than the general population to seek treatment for depression. Few students use mental health services, instead relying on the support of family and friends during periods of mental illness. Barriers to use of mental health services include lack of time, perception of academic jeopardy, concern regarding confidentiality, the stigma of mental illness, and cost. Some of these issues appear to be even greater barriers for female and minority students.

**Burnout**

Burnout is another measure of poor mental health attributed to work-related stress. This syndrome of emotional exhaustion, depersonalization, and low personal accomplishment culminates in decreased effectiveness at work and is particularly common in individuals in the helping professions (teachers, doctors, social workers, etc). Several studies have reported high rates of burnout in residents and practicing physicians, leading to speculation that the origin of physician burnout occurs during medical school. Despite this hypothesis, the
prevalence, inciting factors, and effect of burnout among medical students have not been well studied, particularly among Indian students.

### 3.2.1 POTENTIAL CAUSES OF STUDENTS DISTRESS

The following literature is from the study made by Liselotten et al, titled “Medical Student Distress: Causes, Consequences, and Proposed Solutions”

- **Adjustment To The Medical School Environment**

  The sources of stress for medical students vary by year in training. The first-year medical student is faced with the challenges of being uprooted from family and friends and adapting to a demanding new learning environment. Human cadaver dissection is a well-recognized stress for many students, but other sources of distress, such as a substantially increased scholastic workload and concern for academic performance, also characterize this transition. Attempting to master a large volume of information and joining a peer group of equal motivation and intelligence can be intimidating for young adults accustomed to rapid mastery of material and academic distinction. This challenge is amplified for students who struggle academically. High-stakes examinations, such as the part I examination of the National Board of Medical Examiners and tests that must be passed before academic advancement, frequently lead to performance anxiety at the end of the preclinical years.

- **Ethical Conflicts**

  Interpersonal interactions between learners (students) and teachers (faculty, residents, and interns) can subtly but profoundly influence students. The vast majority of these interactions are between students and residents and
occur in an informal setting when no faculty is present. This “informal curriculum” conveys powerful messages about professional values, character, and norms. Unfortunately, depression, burnout, and stress are common among student supervisors and can lead to modelling of cynicism and unethical behaviour that contradict lessons from the formal curriculum.

In this study of third- and fourth-year students, 98% of respondents reported observing physicians refer to patients in a derogatory fashion, and 60% reported witnessing unethical behaviour toward a patient. More than two thirds of students experienced guilt about their personal role in these episodes but felt forced to participate to “fit in” and receive a favourable evaluation. Others have made similar observations. The “see one, do one, teach one” approach to learning invasive procedures, the demands to write notes about patients not personally examined, and a dehumanized approach to patients (“divide and conquer”) also can present ethical challenges to students who desire to be “team players” and who are influenced strongly by supervising physicians.

 Exposure To Death and Human Suffering

Most patients receive much of their health care toward the end of life, and medical students in the clinical years are confronted frequently with issues related to death and dying for the first time. Unfortunately, the medical school curriculum often focuses exclusively on disease diagnosis and treatment and pays little attention to education about end-of-life issues and palliative care. In light of the frequency with which students encounter patients at the end of life and the lack of student training in this area, it is no surprise that students are fearful, anxious, and hesitant to interact with dying patients. Students report feeling awkward, sad, overwhelmed, apprehensive, vulnerable, angry, and anxious in these circumstances, which highlights the limitations of medical science and can precipitate thoughts about one’s own death.
Medical students recognize that they typically are inadequately prepared to communicate with dying patients and their families. Although issues related to death and dying often are presented during preclinical lectures, clinical training in the skills required to care for patients at the end of life is less common. One study reported that although 100% of third-year students had cared for a terminally ill patient, only 41% had been present while an attending physician talked with a dying patient, and only 35% had ever discussed with an attending physician how to care for terminally ill patients.

**Student Abuse**

The perception of being taken advantage of or abused is common (50%-85%) among medical students. More female than male medical students report having been victims of abuse, but no variation by race has been reported in the few studies published. Student abuse occurs most often during the clinical years, with faculty, house staff, and nurses the most common abusers. Although verbal abuse is the most common problem in this category, institutional abuse (unfair grades, excessive workload, unnecessary scut work), assignment of inappropriate task (ie, getting food for the team), physical abuse, sexual harassment, and racial discrimination are also serious problems. The effect of abuse on students is serious. In a study of more than 500 medical students, more than 40% reported that they had personally experienced abuse, with many stating that the experience was a major source of stress that affected them for a month or longer.

Regardless of year in training, verbal abuse seriously affects students' confidence and negatively affects the learning environment. Studies also suggest that verbal abuse influences students' specialty choice, adversely
affects their care of patients, decreases institutional loyalty, and erodes mental health. Anxiety, depression, hostility, low self-esteem, and use of alcohol to “escape” are more common among students who perceive abuse. Despite this profound effect, less than one third of students report abuse to faculty or medical school administrators, often due to fear of reprisal or concern of potential repercussions on performance evaluations.

**Personal Life Events**

Although sources of stress related to the training experience have been the focus of most research on student distress, students also experience numerous personal life stressors common to individuals their age. In a study of more than 1000 medical students, many reported experiencing the death of a family member (15%), personal illness or injury (25%), or change of health in a relative (42%) within the past year. Although these life events would be expected to adversely affect students' quality of life (QOL) and professional development, their effect has not been well studied. Other personal life events, such as marriage, appear to protect against distress. In the 1995 Association of American Medical Colleges graduation questionnaire, 30% of graduating medical students were married (a lower prevalence than reported in the age-matched general population), and another 14% were engaged or partnered. The lower stress found among married students relative to their single counterparts has been attributed to emotional support provided by the spouse.

Although marriage is relatively common among medical students, smaller numbers of students (10%) have children by graduation, and little is known about the mental health consequences of pregnancy or childrearing during medical school. Although childbirth and childrearing typically are considered positive life events, children add a level of complexity to students' lives, with a mental health effect that may be gender-specific. Female students
were more likely to be depressed if they had children, whereas no such relationship was observed among their male colleagues.

- **Educational Debt**

  Student debt has increased out of proportion to the escalation of tuition fees in recent years. The mean educational debt for the class of 2004 was $115,218 (up 5% from the previous year). Student debt among Canadian graduates also is increasing, leading some graduates to leave home to pursue more lucrative careers in the United States. Although the effect of debt on medical students' mental health has not been studied directly, financial concerns are a common source of student stress and appear to influence specialty choice.

3.2.2 **CONSEQUENCES OF STUDENTS DISTRESS**

- **Impaired Academic Performance**

  Stress and performance are related intimately. Performance measures such as grades and clinical evaluations can be sources of stress and anxiety. Although these states of distress may reciprocally affect grades, the degree of their influence may be subtle and depend on personality. Both grades in the preclinical years and clerkship examination scores could be predicted as well by psychosocial characteristics (anxiety, depression, loneliness, neuroticism, self-esteem, and stressful life events) as by Medical College Admissions Test scores. Even more surprising, psychosocial characteristics were better predictors of clinical competency than the admissions test scores. Specific stressors, such as interpersonal conflicts with team members, also appear to influence clerkship grades, and National Board of Medical Examiners part II examination scores. Most but not all studies also suggest that anxiety correlates with poor
performance, but cause vs. effect is difficult to determine. Although theorized to have a negative influence, the effect of depression and burnout on academic performance in medical students has not been well studied.

- **Cynicism**

  Although “an interest in helping people” is one of the most common reasons that college graduates cite for choosing a career in medicine, this idealism often gives way to cynicism during medical school. The medical school training process actually is characterized by a decline in empathy and humanitarianism two traits that medical educators strive to promote. This decline in compassion, initially recognized in the 1950s, begins during the pre-clinical years and progresses during clinical rotations. Such negative attitudes may develop in response to students' environment and experiences. Although in the short term, attitudes such as cynicism may serve as a buffer against anxiety, fear of failure, and exposure to human suffering, they ultimately erode professionalism. Empathy has been shown to correlate with physician competency, and the erosion of this characteristic throughout the course of training is particularly concerning.

  Cynicism and loss of compassion also appear to affect specialty choice and can translate into an unwillingness to care for chronically ill, elderly, and terminal patients. Increasingly, students also appear to be basing their specialty choice on lifestyle considerations rather than on humanitarian ideals, reflecting both a change in priorities and the desire to limit personal distress.

- **Academic Dishonesty**

  A lack of integrity among some medical school applicants, medical students, residents, and physicians has been well described. Nearly one quarter of students admit to cheating, and more than two thirds report
witnessing cheating by colleagues. Students cite illness, workload, and perception of the material taught as “trivial” as reasons they cheat. Dishonesty in patient care activities, such as recording tasks not performed, reporting findings elicited by others, and lying about having ordered a test, often are motivated by fear and a desire to appear knowledgeable.

The perception of what defines academic integrity also differs by year in school. First-year students were more likely than more senior students to correctly identify case scenarios describing academic dishonesty as being unacceptable. Students in later years of training were both less likely to consider the behaviours wrong and more likely to report that they had or would engage in the behaviours described.

Substance Abuse

Although the overall pattern of alcohol consumption among medical students is similar to that of age-related peers, problematic alcohol consumption is common among medical students. Up to 20% of first-year medical students admit to excessive alcohol intake and report anxiety, stress, examination and work pressures, and tension to be among the common reasons for alcohol consumption. At one Midwest medical school, students' mean score on a validated assessment for alcohol dependence (Alcohol Use Disorders Identification Test) doubled during the first semester ($P<.001$), with 20% of students scoring above the cut-off for problematic drinking. Other studies suggest that alcohol use remains high throughout medical training. In a study of graduating students from 8 US medical schools, 29% of students reported that their alcohol consumption increased during medical school, with more than 20% reporting at least one episode of binge drinking (5 or more drinks in one sitting) in the past 30 days.
Illicit drug use among medical students is comparable to or less than that of age-related peers. Despite this fact, 3% to 10% of medical students report using illicit substances. In a survey of 2046 senior students at 23 medical schools, the reported incidence of marijuana (10%), cocaine (2.8%), tranquilizer (2.3%), heroin/opiate (1.1%), psychedelic (0.7%), amphetamine (0.3%), and barbiturate (0.2%) use in the last 30 days was concerning. Most, but not all, studies suggest that students who report use of illicit drugs started this practice before medical school.

**Suicide**

Suicide is the third-leading cause of death among 20-to 30-year-olds in the United States. The annual suicide rate for male medical students between 1974 and 1981 was comparable to similarly aged men in the general population. Although the suicide rate for female students during this period equalled that of their male colleagues, it was 3 to 4 times higher than age-matched women in the general population. In a follow-up study of 101 US medical schools, 15 students were reported to have committed suicide between August 1989 and May 1994. All but one of these suicides were committed by men. In this study, suicide ranked higher as a cause of death in medical students than in similarly aged Americans.

Although the prevalence of suicidal ideation and planning among medical students has not been well studied, an estimated 8 to 25 attempted suicides occur for each suicide death, reflecting the concern that completed suicides represent only a fraction of the extreme distress manifested by suicidal ideation, planning, and attempts among medical students. The risk of student suicide appears higher in the clinical years. Among senior Norwegian medical students, 14% reported having suicidal thoughts within the past year, and 6% had planned to commit suicide during medical school. Such suicidal thoughts persist into postgraduate training and practice.
Depression, personal life events, and personality traits may influence the transition from suicidal ideation to planning, but the factors that prompt medical students to act on their plan have not been studied. Among physicians, suicide attempts are more likely among those who are single, female, depressed, have other psychiatric illness, or struggle with drug or alcohol dependency.

3.3 EMOTIONS AND THE MEDICAL CARE PROCESS

There are three interrelated ways in which emotions play a part in the process of medical care. First, both physicians and patients have emotions. They are influenced by emotions they have experienced in the past, emotions they experience in the present interaction with each other, and emotions they anticipate having in the future. Emotions exert a profound influence on the experience’s cognition and behaviour, including prosocial acts, recall, decision making, persuasion, information processing, and interpersonal attitudes. Although most of the research that has been conducted in this domain has been in nonclinical settings, a study of third-year medical students showed that their affective state influenced medical decision making as well as how much effort and concern were invested in the patient’s care.

We often think of patients as the ones having emotions. For example, they may have anxiety or depression, and they are likely to have positive or negative feelings about their physicians. Physicians' emotions receive less study, although physicians inevitably bring their emotional lives into medical visits and have emotional responses to patients. An antagonistic, frustrating, or demanding patient may anger or exasperate a physician, while a pleasant, healthy, or cooperative patient may be liked more than others. A physician may be unaware of his or her emotional responses or may try to suppress
them. Alternatively, a physician may try to orchestrate the visit so that emotionally demanding or arousing situations do not occur.

Also relevant to the discussion of patient and physician emotion are the concepts of transference and counter transference. Well described in the psychiatric literature, transference is a phenomenon in which patients displace or “transfer” to the doctor strong emotional feelings that are engendered by others with whom they have intense relationships, e.g., a parent, spouse, or child. When this occurs, the patient may experience an emotional response to a clinical situation that seems out of proportion with the situational context. Counter transference works in a similar way but refers to the physician's “transfer” of strong emotions based on his or her own personal relationships to the patient. The experience of transference and counter transference goes beyond a sentiment like “you remind me of my daughter” to intense feelings, both positive and negative, including protectiveness, love, or manipulation.

It is difficult to pinpoint the origin of intense emotional reaction and this is particularly true within the context of transference and counter transference. Personal awareness training, clinical supervision, and individual therapy may be useful in helping physicians more accurately identify transference in their patients and better understand their own motivations and tendencies in this regard.

Second, both physicians and patients show emotions, sometimes in spite of efforts at suppression or masking. As examples, both physicians and patients reveal their liking of each other, at least enough so that they can each pick up on it at greater than chance levels. Some of the emotional cues that are conveyed by patients reflect their illness state. These include cues relating to physical pain and to physical and psychological distress. Coronary disease is associated with distinctive vocal and facial expressions. Among patients
with coronary illness, episodes of ischemia correspond with facial movements associated with anger, suggesting that anger can trigger coronary events. Some of the cues expressed by patients are inadvertently conveyed, while others are part of deliberate efforts to convey the experience of symptoms and suffering to the physician-experiences that are difficult to express in words.

Third, the evidence that emotions are shown in the medical visit implies that both physicians and patients judge each other's emotions. They do this to gain insight into how the other feels about them (the example of physicians' and patients' accuracy in judging each other's liking for one another illustrates this). Physicians also use patients' affective cues in the diagnostic process, as well as in evaluating clinical progress and overall well-being. For example, physicians may elicit emotions to help make a diagnosis such as expressive aphasia, or may look for certain nonverbal cues when concerned about a patient's possible depression or when estimating how much pain the patient is experiencing.

The judgments that physicians and patients make of each other's emotional cues may be right or wrong. Recent research using stimulated videotape review reveals that doctors and patients often feel differently than they look on videotape.

3.4 THE MEASUREMENT, DYNAMICS, AND EFFECTS OF NONVERBAL SENSITIVITY AND NONVERBAL BEHAVIOR

3.4.1 The Measurement of Nonverbal Sensitivity

There is a large research literature and a number of well-established tools for measuring nonverbal sensitivity. Also, the ability to judge another's emotional expressions is one of the defining facets of the emotional intelligence concept. Most measures of nonverbal sensitivity assess accuracy
in the recognition of emotions as expressed by others, known broadly as decoding skill. While less often measured because of its cost and complexity, an assessment of an individual's ability to convey emotional messages as intended is also an important nonverbal communication skill. Even less frequently studied is emotional self-awareness, although this is recognized as an attribute of the reflective practitioner, with some authors asserting that awareness of one's own feelings is a prerequisite for insights into the feelings of others and an indication of empathic ability.

People can accurately judge others' emotions at above chance levels based on surprisingly small amounts of behavioural information, often called “thin slices” of behaviour. Sometimes, the “thin slices” that are investigated are less than one second in duration, but more often they are several seconds to several minutes long.

There are several correlates of nonverbal sensitivity that are potentially relevant to the medical care process. The two most ubiquitous findings relate to gender and better social and personal adjustment (defined in many ways). Females are better at judging nonverbal cues and are more skilled in conveying emotions via nonverbal cues. It is very likely, then, that female physicians will exhibit higher levels of nonverbal sensitivity than male physicians, and that nonverbally sensitive physicians are less likely to suffer professional burnout.

3.4.2 Nonverbal Sensitivity of Physicians

Research on physicians' nonverbal sensitivity is sparse; little is known about how aware physicians are of their own emotions, or how accurate they are in judging patients' emotional responses to them. Nevertheless, there are a few studies that do provide some insight into this domain.
An unusual study of emotional self-awareness in medical students was undertaken as part of a communication skills training program. Prior to training, male and female medical students scored equally on the study's measure of emotional self-awareness. Both male and female students showed improvement as a result of the training program; however, female students were able to describe their emotional reactions to videotape clips of patients with greater awareness of complex and ambivalent feelings than their male counterparts. The authors suggest that increased communication proficiency in the verbal domain (stressed in the training curriculum) enhanced female students' empathic abilities and consequently awareness of their patients' as well as their own emotions.

Several studies have focused on physicians' accuracy in judging patients' emotional states or visit experience. In a study, patients were asked after their visits to rate their emotions on 6 scales (pleased, cheerful, relieved, worried, angry, and disappointed), and physicians were asked to rate the patients' emotions on the same scales. In addition, patients rated their overall satisfaction with the visit and its communication quality, and physicians were asked to estimate their patients' ratings in a parallel manner. Physicians judged their patients to experience more negative emotion, and less positive emotion, than the patients themselves reported. Further, physicians predicted patients' visit satisfaction and ratings of communication quality to be substantially lower than they actually were.

Several interpretations can be offered for the findings that physicians thought patients were more negative than the patients reported. It is possible that physicians may be selectively attentive to indicators of patient distress and criticism, and/or patients may believe that their role requires them to act distressed (or at least serious), and express a higher level of negativity than
they actually feel. It is also possible that patients may give more positive ratings on paper than their feelings actually warrant, or that physicians are unreasonably self-critical. Finally, it may be that physicians simply use a different metric or set of criteria in their judgments than patients. Regardless of interpretation, the gaps in physician-patient agreement on what the patient is feeling suggest that there is much room for improvement.

In another study, physicians and patients were asked to rate their liking of one another, defined as feelings of warmth and friendliness, and enthusiasm for seeing someone. Some degree of accuracy in judging their liking of each other was evident, and while it was significantly greater than chance, it was still quite modest. Of interest, the patients and physicians in these studies demonstrated about equal accuracy in predicting how much they were liked by one another, and liking tended to be mutual (i.e., positively correlated between physician and patient). Although individuals may make explicit reference to the quality of their relationship in words, this is rare. We believe it is much more common for feelings of liking, warmth, and enthusiasm to be conveyed, and reciprocated, through nonverbal behaviour such as voice tone, facial expressions, or body posture.

While not explicitly concerned with nonverbal sensitivity, there is research suggesting that primary care physicians generally do poorly at recognizing patients' emotional distress, perhaps because they fail to attend to emotional cues fully. The work of Bensing et al. supports this contention; the researchers found that physicians who gazed frequently at the patient were more successful in recognizing psychological distress as measured by a standard screening instrument. The implication of the study is that greater eye contact results in more effective reading of emotional cues, leading to better recognition of psychosocial distress. It is also possible that eye contact
enhances listening skills and thus the ability to synthesize and interpret verbal and nonverbal cues of distress more accurately.

3.4.3 The Relationship of Physicians' Nonverbal Sensitivity with Patient Outcomes

Physicians' nonverbal skills in terms of encoding (the ability to convey emotional messages accurately as intended) and decoding (the ability to recognize emotions of others accurately) have been investigated in several studies. Physicians who were more skilled on the expressive task of emotional encoding had patients who rated them as listening more and being more caring and sensitive than other doctors. Also, patients of physicians who were more accurate at decoding body movements received higher satisfaction ratings from their patients, and patients of physicians who were better able to decode voice tone cues were less likely to cancel medical appointments.

Whether physicians' nonverbal skill had a causal impact on these outcomes (as opposed to other, unmeasured variables) cannot be determined from correlational studies. However, if a causal relation is established it is important to consider the mechanisms through which physicians' nonverbal skill may be translated into higher satisfaction and appointment keeping. We can speculate that nonverbally skilled physicians engage in more appropriate nonverbal behaviours, are more sensitive to patient nonverbal cues of distress or confusion, and are more effective in conveying emotional messages of caring and sincerity to their patients.

3.4.4 The Relationship of Physicians' Nonverbal Behaviour with Patient Outcomes

Aside from measuring communication skill per se, a number of studies have related physician nonverbal behaviours to patient outcomes, the most
frequently studied being patient satisfaction. Findings in the area have been generally consistent and positive; physicians who are more emotionally expressive in their nonverbal behaviour are viewed more favourably by patients. A review of the literature in this area found that greater patient satisfaction was associated with nonverbal indicators of physician interest including less time reading the patient's chart (probably associated with more eye contact), more physician immediacy (e.g., forward lean), more head nods and gestures, and closer interpersonal distance. Interestingly, the review also found that less touch by the physician was associated with greater satisfaction, perhaps suggesting that touch may be seen as dominating or controlling. The amount of time (both actual time and time as a proportion of the visit) that the physician spends gazing at the patient has also been found to predict patient satisfaction. Not all study results are consistent with these findings, however, and some studies show moderating effects of other variables such as physician and patient gender on these relationships.

Several investigators have suggested that the nature of the medical problem or the general verbal communication skills and quality of care provided to patients might affect the relationship between nonverbal behaviour and satisfaction. Griffith et al. addressed this question in a recent study. Fifty-nine residents were assigned to 1 of 3 standardized encounters: a primarily medical problem of chest pain, a primarily psychosocial problem of depression with a history of sexual abuse, or a counselling problem involving risk reduction for an HIV patient. The standardized patients rated the residents using a multi-item checklist on: (1) general verbal communication skills (including use of open-ended questions and summarization), (2) case-specific information gathered and information counselled, (3) a 7-element nonverbal index (facial expressivity ranging from inexpressive, blank to very expressive, emotional; frequency of smiling; eye contact and nodding, both ranging from
infrequent to very frequent; body lean ranging from backward to forward; body posture ranging from closed to open; and tone of voice ranging from inexpressive, monotone to very expressive, emotional), and (4) a 5-item general satisfaction measure.

The findings revealed that patient satisfaction was strongly associated with more emotionally expressive nonverbal behaviour scores of physicians. This relationship was equally evident in the biomedical chest pain scenario as well as the psychosocial and behavioural scenarios of depression and HIV compliance, suggesting that the nature of the medical problem does not moderate the effect of the physicians' nonverbal behaviour on patient satisfaction. Moreover, the correlation between general satisfaction and the nonverbal score was substantially stronger than the correlations between satisfaction and general verbal communication skills or information scores. Nonverbal communication explained more patient satisfaction variance than the verbal performance of the study residents.

Several studies of electronically filtered speech (speech that is altered so that the words cannot be understood) have found that physicians' feelings toward patients, reflected in how they talked about them in interviews when the patient was not present, were highly related to the physicians' tone of voice during medical visits. An interesting study of alcoholic patients showed the effect of voice tone on patient utilization behaviour. Milmoe et al. asked physicians to talk about their feelings toward alcoholic patients seen in an emergency room. Measures of hostility in the physician's tone of voice during these interviews predicted the physician's subsequent failure to have patients follow through on referrals to alcoholic treatment centres. Presumably, the patient noticed the physician's hostile and rejecting voice tone during the medical visit and responded by rejecting the physician's suggestion for further treatment, even although that treatment was with other doctors in a different facility.
3.5 THE VALUE OF EMOTIONAL INTELLIGENCE SKILLS TO HEALTH CARE PROFESSIONALS TODAY

Emotional competencies are exceptionally significant in the 21st century healthcare environment, which is characterised by medical tourism, foreign direct investments, integrated delivery systems, and managed care. In the current set up, the healthcare professionals have a need to develop a collaborative ability to bring diverse and limited resources together and create a delivery process that will last amidst current market challenges. The skill to succeed with these challenges comes from the four measures of Emotional Intelligence: appraisal and expression of emotions in self and others, regulation of emotions in self and others, utilization of emotions, and social skills.

Empathy is core to field of healthcare and this can be referred to as social awareness. In today’s business of healthcare, empathy is a competency that also gets lost. The healthcare professionals need to keep compassion and integrity in sight. If they are not able to care for the patient while keeping the patients priorities in forefront, they will lose the customer.

Even though the healthcare field has become highly technology driven, the success of any healthcare organization is derived from its human resources. The healthcare organizations have to create a climate around the work and the patients that will encourage professionals to provide appropriate and satisfactory service to the patients. In such situation, job satisfaction takes a forefront. It will improve the quality of the care given. In other words, it is when the employees are given the opportunity to expand their emotional competencies that they become more creative and more compassionate and effective in their work.
This is a unique industry where the professionals need to have both clinical competence and service orientation for professional excellence. The ability to ‘serve with care’ orientation is reflected by the Emotional Intelligence. Some believe that the latest proliferations in technology would offset the personal care offered.

Nevertheless, in all health care professions there is a need to create and maintain a healthy therapeutic relationship with patients. Within these relationships, the professionals must respond to both the technical aspects of the disease and also to the associated emotional aspects. The capacity to develop this kind of a relationship may be facilitated by one’s emotional intelligence. It has been proved that health professionals need to have emotional intelligence to provide high-quality patient care.

3.6 MEDICAL EDUCATION IN INDIA

Boosted by its economic growth in the last few years, India has not lagged behind in adopting new medical advances and technologies. However, the resources dedicated to health care and medical education have not increased correspondingly. Due to overpopulation and a tremendous disease burden, along with inadequate resources and policies, there has been a perpetual demand-supply gap of medical professionals as well as health care resources in most parts of the country, especially in rural India, with demand always exceeding supply. With medical colleges nearly doubling in number over the last 20 years, this demand-supply gap extends to teachers in medical colleges as well. The economic growth in urban areas has made the private sector a more attractive option for medical professionals and has complicated the situation further. Though recommended by the Medical Council of India, the training in educational techniques is not compulsory for medical teachers in India. Additionally, we have not kept pace with the emerging trends in
medical education or the advances in educational research. The following estimates are a rough guide to the ground reality: Considering that each medical college has an average of 200 teachers, the total number of teachers in 262 medical colleges is more than 50,000. Adding the number of teachers of allied specialties such as Occupational Therapy and Physiotherapy, Dentists, as well as resident doctors who teach, the total number could be double that. Assuming that each basic 'teachers training workshop' enrolls 25 participants with 12-15% turnover of faculty every year, about 600 workshops are needed to train all these teachers, roughly 3 workshops per year in every medical college. If a medical college wishes to introduce newer trends in education, the need is still more. Thus, the need for reform and initiating faculty development programs is urgent.

Teacher training programs will serve two needs. The first, and perhaps the more visible, need is to improve the quality of medical teachers. The second, and more important from the long-term view, is to train some from the medical faculty to become leaders who will generate solutions to meet the inevitable challenges faced by existing health care and medical education.

3.7 BRIEF HISTORY OF MEDICAL FACULTY DEVELOPMENT EFFORTS IN INDIA

Faculty development programs have not been a priority in Indian medical education. The earliest formal program was initiated in 1974, with the establishment of the National Teachers Training Centres (NTTCs) in four of the country's premier institutions. The objectives of the NTTCs were to promote the training of medical teachers in educational science and technology, promote development and application of systematic educational process and conduct educational research. NTTCs' activities included short contact programs for medical educators, training programs for medical
administrators, mini courses on particular components of educational process, publications, consultancy services, curriculum development, policy advocacy and networking. The programs involved a 10-day interactive workshop covering topics such as educational objectives, educational methods, media, assessment methods and curriculum planning. Usually three participants were selected from each institute - one each from preclinical, para-clinical and clinical specialties. These participants were asked to start medical education activities on returning to their institutes. Johns Medical College, Bangalore; Seth G. S. Medical College, Mumbai; and J. N. Medical College, Belgaum, have established excellent medical education units and continue to conduct faculty development courses for medical and allied faculty members. NTTCs alone could train approximately 3,000 teachers over 20 years at four centres.

Given the total number of medical institutions in India (over 250), these programs have been obviously insufficient to meet the faculty development needs of the country.

3.8 MEDICAL COLLEGES IN DELHI

Delhi has eight medical institutes, out of which six provide both undergraduate and postgraduate education in medicine while other two are researched based.

3.8.1 All India Institute of Medical Sciences (AIIMS)

The All India Institute of Medical Sciences (AIIMS) was established in 1956 as an institution of national importance by an Act of Parliament to develop patterns of teaching in undergraduate and postgraduate medical education in all its branches so as to demonstrate a high standard of medical education to all medical colleges and other allied institutions in India; to bring together in one place educational facilities of the highest order for the training
of personnel in all important branches of health activity and to attain self-sufficiency in postgraduate medical education. The Institute has comprehensive facilities for teaching, research and patient-care.

AIIMS conducts teaching programmes in medical and Para-medical courses both at the undergraduate and postgraduate levels and awards its own degrees. Teaching and research is conducted in 52 disciplines. AIIMS is a leader in the field of medical research having more than 1500 research publications by its faculty and researchers in a year. AIIMS also runs a College of Nursing, training students for B. Sc. (Hons.) Nursing and B.Sc. Nursing (Post-Certificate) degrees. Thirty-eight departments and seven super-specialty centres manage practically all types of disease conditions with support from pre-clinical and Para-clinical services. AIIMS also runs a 50-bedded hospital and the Comprehensive Rural Health Centre at Ballabgarh in Haryana and provides health care to about 7.7 lakh people through the Centre for Community Medicine.

AIIMS has a manpower of over 10,000 including 750 faculty members, supported by resident doctors, nurses, paramedics, scientists, non-medical officers and staff. It produces a large number of specialists (MD/MS), superspecialists (DM/MCh), PhD scholars and allied health and basic sciences experts, including nurses and paramedical professionals.

AIIMS continues to be active in its partnership with the Welcome Trust, the Department of Biotechnology, Department of Science and Technology and Indian Council of Medical Research, Government of India, to support research and develop projects that would provide innovative healthcare products at affordable costs. Figure 3.1 gives a picture of All India Institute of Medical Sciences (AIIMS), New Delhi.
3.8.2 Army College of Medical Sciences

Army College of Medical Sciences was established in 2008. It is situated in Delhi Cantt in New Delhi. The college is affiliated to Guru Gobind Singh Indraprastha (GGSIP) University, Delhi. Army College of Medical Sciences is approved by the Medical Council of India (MCI) and recognized by the central government. Army College of Medical Sciences offers Bachelor of Medicine and Bachelor of Surgery (MBBS) course of 5½ years duration, including 1 years of internship. Army College of Medical Sciences also offers internship period in which students develop their key skills under highly skilled faculty. Figure 3.2 gives a picture of Army college of Medical Sciences, New Delhi.
Lady Hardinge Medical College (LHMC) is a Medical College for women located near Connaught Plane in New Delhi, India. Established in 1916, it became part of the Delhi University, Faculty of Medical Sciences in 1950. For the teaching and training of medical students, it has two hospitals, Smt. Sucheta Kriplani Hospital, and Kalawati Saran Child Hospital with bed strength of 877 and 350 respectively. When the capital of India was shifted to Delhi, Lady Hardinge, the wife of the then viceroy of Viceroy Charles Hardinge, was the first to take initiative for starting a medical college for women, as the lack of separate medical college for women made it impossible for Indian women to study medicine.

For the teaching and training of medical students, it has two hospitals, Smt. Sucheta Kriplani Hospital, and Kalawati Saran Child Hospital with bed strength of 877 and 350 respectively. Figure 3.3 gives a picture of Lady Hardinge Medical College (L.H.M.C), New Delhi.
3.8.4 Maulana Azad Medical College (MAMC)

The Maulana Azad Medical College (MAMC) is a government medical college in Delhi affiliated to University of Delhi. It is named after Indian freedom fighter and first education minister of independent India Maulana Abul Kalam Azad. It is located at Bahadur Shah Zafar Marg, New Delhi. MAMC is one of India's premier medical colleges and consistently ranked amongst the top 5 medical colleges in the country. The college has the following hospitals attached to it:

1. Lok Nayak Hospital
2. Govind Ballabh Pant Hospital
3. Guru Nanak Eye Centre
4. Sushruta Trauma Centre
5. Chacha Nehru Bal Chikitsalaya

The hospitals have a combined bed strength of more than 2400 beds (with further expansion underway) and cater to a population of more than 20 million people in Delhi alone and many more from the surrounding states in north India. The college is a tertiary care referral centre and has teaching programs for graduation/medical school, post-graduation/residency and
subspecialties/fellowships (referred to as super specialities in India). Figure 3.4 gives a picture of Maulana Azad Medical College (M.A.M.C), New Delhi.

![Maulana Azad Medical College (M.A.M.C), New Delhi](image)

**Figure 3.4 Maulana Azad Medical College (M.A.M.C), New Delhi**

### 3.8.5 University College of Medical Sciences (U.C.M.S)

**University College of Medical Sciences** or **U.C.M.S**—along with Maulana Azad Medical College and Lady Hardinge Medical College—forms the trifecta of Medical Institutes affiliated to the University of Delhi in Delhi, India. It is associated with Guru Teg Bahadur Hospital, Dilshad garden which serves as the teaching hospital. The college is known for its quality research and exemplary education. It ranks 7th in the nation based on the number of publications in PubMed indexed journals. It is considered to be the 3rd highest ranked medical college in the country, and is the second most sought after college through the AIPMT examination.

The University College of Medical Sciences was founded in 1971 by the efforts of the then Health Minister of Delhi. The Health Ministry proposed to provide medical education to every student who attained the eligibility criteria to study medicine. Figure 3.5 gives a picture of University College of Medical Sciences (U.C.M.S), New Delhi.
3.8.6 Vardhman Mahavir Medical College (V.M.M.C)

Vardhman Mahavir Medical College was established at Safdarjang hospital in November 2001 and on 20th November 2007, the Vardhman Mahavir Medical College building was dedicated to the nation. The first batch of MBBS students joined the college in February 2002. The college has recognition by the Medical Council of India. The college is affiliated to Guru Govind Singh I P University, Delhi. From 2008 onwards the post graduate courses are also affiliated to GGSIP which were with Delhi University till now.

Safdarjang Hospital was founded during the Second World War in 1942 as a base hospital for the allied forces. It was taken over by the Government of India. Ministry of Health in 1954. Until the inception of All India Institute of Medical Science in 1956, Safdarjang Hospital was the only tertiary care hospital in South Delhi. Based on the needs and developments in medical care the hospital has been regularly upgrading its facilities from diagnostic and therapeutic angles in all the specialties. The hospital when started in 1942 had only 204 beds, which has now increased to 1531 beds. The hospital provides
medical care to millions of citizens not only of Delhi but also the neighboring states free of cost. Safdarjang Hospital is a Central Government Hospital under the Ministry of Health & Family Welfare and is receives its budget from the Ministry. Safdarjang Hospital has a Medical College associated with it named Vardhman Mahavir Medical College.

Besides the regular clinical work various research activities are undertaken on a regular basis in the different departments of the hospital. A number of these are published in National and international medical journals. A few journals are also published from Safdarjang Hospital. The research activities are often in coordination with ICMR, DST & WHO. Figure 3.6 gives a picture of Vardhman Mahavir Medical College, New Delhi.