CHAPTER 7

DISCUSSION

Results of the study in relation to research literature and probable reasons for the findings have been discussed in this chapter. Differences in study variables across gender and the two majors (medical and engineering) are also discussed.

7.1 Discussion of Students Study

7.1.1 Anxiety and its Relationship with Academic Achievement

High to very high level of anxiety was reported by 46 percent of the students who participated in this study as compared to the norms of other undergraduate students and in case of medical students it was still higher. This could be because of huge difference in the curriculum, duration of the course and more competition in medical and engineering courses. A significant negative correlation between anxiety and academic-ach was found in the study probably because anxiety adversely affects learning and study skills by interfering in cognitive activities such as memory recall and concentration due to additional psychological and physiological changes (Gross, 1990). It disrupts the encoding of material as well as the retrieval of information. Highly anxious students experience physiological changes as well as cognitive breakdowns while attempting to succeed on the examination. All these factors cycle back and create even more anxiety (Gierl & Rogers, 1996). Individuals with low levels of anxiety maintain their focus throughout information processing and retrieval. They stay on task and perform well in exams because they have less disruptive thoughts and less cognitive breakdowns (Wigfield & Eccles, 1989).

7.1.2 Relationship between Anxiety, Optimism, Achievement Motivation and Academic Achievement

Optimism and ach-motivation among the students in the current study showed significant negative correlations with students’ anxiety, whereas, a significant positive relationship was found between optimism, ach-motivation and academic-ach among students. This means that optimism and ach-motivation among students may help in reducing anxiety and may lead to lead to better academic performance. This is in line with the findings of the study by
Owayed (2005) on students of Education College in Kuwait, which showed significant positive correlation between academic-ach and both optimism & self-esteem, whereas the correlations were negative between academic-ach and both anxiety & pessimism. Study by Siddique et al. (2006) on first year Law students also revealed that optimism was inversely related to both dispositional and state anxiety. This could be because optimists have better stress coping strategies and higher achievement striving (Lee, Ashford, & Jamieson, 1993; Segerstrom, 2007). Also, Optimists may have better social support to accomplish their tasks (Davis et al., 1992) and are able to anticipate and respond proactively to stressors, resulting in less burnout, better preparedness, higher levels of performance and satisfaction (Crosno et al., 2009).

The findings are also in convergence with the findings of the study on medical students by Yousefy, Samaneh and Firouzina (2012) and some studies on other undergraduate students as well (Bressler & Bressler, 2010; Ning & Downing, 2010; Crosono et al., 2009; Green et al., 2006). The broaden-and-build theory of positive emotions suggests that positive emotions (e.g. happiness, interest, anticipation) and positive thoughts enhance self efficacy, broaden one's awareness and encourage novel, varied, and exploratory thoughts and actions. This broadened behavioral repertoire builds skills and resources which help in ach-motivation (Karademas, 2006).

7.1.3 Ach-motivation Factors and their Relationship with Academic Achievement

i. Self Determination and Competency Beliefs: Out of nine ach-motivation factors, self-determination showed highest correlation with overall ach-mot and was found to be a significant predictor for academic performance. This is because self-determination has direct influence on intrinsic motivation (Deci et al., 1991) and intrinsic motivation has the ability to foster lifelong learning skills (Messali, 2010). According to Deci and Flaste (1995) competency beliefs enhance self-determination and this was relevant in the present study also, as there was a significant relationship between the two (refer Appendix 1: Table-A). According to Linnenbrink and Pintrich (2002) Competency beliefs enable the students to predict how successfully they will perform an upcoming task. It helps the students to take academic challenges positively and achieve a goal (Wigfield & Eccles, 2002). Thus we can say that competency beliefs have both direct and indirect influence on academic-ach because
of which it revealed a strong correlation with ach-motivation, although its predictive significance for academic-ach was not very high.

**ii. Future Goals and Academic Motivation:** Observation of students’ response in the current study revealed that irrespective of their academic results, most of them felt the importance of *college grades* and reported achievement anxiety during examinations, probably because college grades are important for job placements in future. They expressed a strong desire for success in future and reported frustration on not getting a chance to compete in the field of their choice. Therefore, academic motivation and future goals revealed a strong relationship with the overall ach-motivation among the students. Future goals emerged as the best predictor of academic-ach among medical students, whereas, among engineering students it was academic motivation. This could be because majority of the medical undergraduates opt for future competitive exams for post graduation and specialization, whereas, most of the engineering undergraduates opt for job placements immediately after their graduation and for which their academic grades are important. According to Atkinson (1974) all students are influenced by a need to achieve, but each student is affected to different degrees.

**iii. Relevance of College and Attitude towards Teachers:** An interesting fact revealed in this study was the relevance of college towards future goals and better academic performance. This suggests that the management and the authorities must take care to provide good teachers and better infrastructure to the students. 59% students, especially engineering, irrespective of their academic results, felt that their teachers need to be more competent. Study by Tucker et al. (2002) revealed that students’ perceived relatedness with teachers directly influenced academic engagement and teacher involvement was the strongest predictor of student motivation.

**iv. Social Goals:** It was interesting to see that social factors like parental expectations, peer relationships and social responsibility were significant predictors for academic-ach in the present study. According to Kaplan & Maehr (2002) social goal orientations are associated with academic-ach. Dowson and McInerney (2001) found that *social affiliation* or working *with the peers* not only helped the students engender a sense of belonging but also helped them work more effectively and promoted positive feelings toward learning. Students with a *social responsibility* goal orientation are motivated by a desire to fulfill their role
expectations. This includes parent, teacher, and peer expectations. Students feel proud, excited, and satisfied when they meet these expectations.

v. Co-curricular Activities, Sports and Adventure: These factors were significant predictors for ach-motivation among students but their relationship with academic performance was not significant. This could be because 53% students irrespective of their academic results showed positive attitude towards these activities. It shows that high achievers are equally enthusiastic about these activities and probably manage their time well.

vi. Integrated Motives or Multiple Factors: Seldom is a person driven by a solitary, isolated motive. According to Dowson and McInerney (2001) there can be a variety of motives that are possible for predicting behavior or understanding motivation. Significant correlations between various factors of ach-motivation in the present study support this concept of Integrated Motives. For example academic motivation was significantly related to future goals, meaningfulness of task, work method, self-determination, competency beliefs, relevance of college and positive attitude towards teachers (refer to Appendix 1: Table-A). This shows that a student who is academically motivated has a higher need for achievement, understands the importance of academic tasks, is determined and systematic in his/her academic work, believes in his/her abilities, has a right attitude towards teachers and understands the importance of college and grades for future goals. The results of the study are convergent with the findings of the study by Hwang, Echols, and Vrongistinos (2002) when they found that the students integrated a combination of motivational factors like career opportunities (future goals) and social goals.

7.2 Discussion of Faculty Study

7.2.1 Occupational Stress and its Factors among Faculty Members

Level of Occupational Stress: During interaction with faculty members it was conveyed by them that they have a very busy schedule as along with taking classes they have various other responsibilities as well. Therefore, it was assumed that stress among the faculty members might be high. But the results revealed that only 16 % of the faculty members reported high level of OS, whereas, the majority of them reported moderate levels of stress. The trend was nearly same for all categories (medical, engineering, males and females). As
stress is subjective in nature and to some extent it is useful (eustress), a moderate level of stress can be managed by the faculty members if they have better knowledge about their stressors and their effects. There were certain sensitive items in the questionnaire like quantum of work, salary satisfaction, conflicting instructions from seniors, working environment etc. which may not have been responded honestly by the respondents as the questionnaires were mostly collected through the HODs. Keeping this in view the percentage of faculty members with high level of stress could be actually more than the reported percentage. However some of the faculty members had reported these issues honestly without any hesitation.

**Occupational Stressors:** Analysis of variance revealed that *Role Conflict* accounted for the highest variance in overall OS among faculty members. Grouped with Role Ambiguity, Intrinsic Impoverishment, Group Pressure, Under Participation, Strenuous Working Conditions and Role overload, it accounted for 94% variance in overall OS. Therefore, improving upon these seven factors may considerably reduce the perception of stress among the faculty members. Powerlessness, unprofitability, inter-personal relationships and low status although significant, but their contribution towards overall OS was very less. Responsibility for persons was not significant in predicting stress among faculty members. The probable reasons of these findings are discussed below.

**i. Under Participation:** It emerged as the *strongest predictor* of OS among the faculty members. This indicates that most of the faculty members perceive that their opinion and suggestions are not considered while taking important decisions. This also creates a feeling of *powerlessness*. For this the authorities should consider their suggestions and opinions in decision making as much as possible.

**ii. Role Conflict, Role Ambiguity and Role Overload:** As the faculty members in medical and engineering colleges are trained for medical and engineering profession but are actually involved in teaching, this could create *role ambiguity* among them. It was also reported by most of the respondents that they get conflicting instructions from different authorities under whom they work and quite often they have to do the work which ought to be done by others. Such issues lead to a feeling of *role conflict*. Regular evaluation of students due to frequent examinations, pressure of completing syllabus in time, producing good results and handling
other responsibilities as well may lead to psychological and physical strain among the faculty members generating a feeling of role overload or work overload.

The findings are somewhat convergent to the study conducted by Dasgupta and Kumar (2009) to examine the sources of role stress among doctors working in Indira Gandhi Medical College and Hospital, Shimla (India), which revealed that role overload, self-role distance, role isolation, inter-role distance, role stagnation, role expectation conflict, role ambiguity and role inadequacy were the major sources of role stress among doctors. To cope with role related stress faculty members need to plan their work and manage their resources more efficiently. Taking help from others can also be considered. They also need to be clear in their priorities and have to understand that they have a bigger responsibility as teachers than as doctors or engineers.

iii. Group pressure, Strenuous Working Conditions and Intrinsic Impoverishment: It was reported by the faculty members that there are many tasks which they do unwillingly due to pressure from the authorities. These things create a feeling of group pressure. Lack of resources and meeting deadlines for various tasks may create a feeling of strenuous working conditions. Providing some more facilities to faculty members may help reduce this feeling. Unnecessary group pressure should be avoided. Instead they need to be motivated to produce their best and should be given some freedom to work in a manner which enhances their efficiency. If there are conflicting opinions they need to be discussed in a positive manner for better conflict resolution. The faculty members also feel that there is not much opportunity for personal growth and their effort is seldom rewarded, which leads to the feeling of intrinsic impoverishment. There should be ample opportunities for their professional growth within the organization and their efforts need to be rewarded when they deserve. Even faculty members need to be more adaptable and understanding in these matters. This may make them feel less stressed.

iv. Less Significant Factors: Most of the faculty members expressed satisfaction in interpersonal relationship with their colleagues. Unlike other professions, the main role of faculty members is to teach, therefore, they reported little stress due to responsibility for persons. However they do have responsibility for students’ growth but probably they understood the items in the questionnaire only for personnel working under them. They also felt that their job has enhanced their social status. Therefore, these factors although
significant, were not found to be strong predictors of occupational stress. Cooper et al. (2001) acknowledged that stressors do not occur in isolation from one another but often occur in combination. For example, an employee may experience role ambiguity leading him to feel a sense of job insecurity, resulting in increased time devoted to working at home, which may increase work-family conflict. Inter correlation of various stressors undertaken in the current study (refer to Appendix 1, Table-C) also support this notion. Therefore, it is better to evaluate the impact of these stressors as a whole rather than as separate entities.

7.2.2 Level of EI and its Significant Competencies among Faculty Members

The results of the study indicate that while 68% of the faculty members reported average EI, only 15% reported higher EI. This shows that there is a lot of scope for developing EI among faculty members. Emotional Stability accounted for the highest variance in the overall EI among faculty members and Self Motivation emerged as the best predictor of EI. These two competencies grouped together with Managing Relations, Empathy and Self Awareness, accounted for 92.3% of the variance in the overall EI. The remaining five competencies, Integrity, Commitment, Self-development, Value Orientation and Altruism although significant, contributed only marginally to the overall EI. Thus, it can be said that focusing on first five EI competencies (emotional stability, self motivation, managing relations, empathy and self awareness) can help considerably in developing better EI among faculty members. Moreover, these are the core EI competencies which help in developing other EI competencies. In the present study also they correlated significantly with integrity, commitment, self-development, value orientation & altruism (refer to Appendix1: Table-B).

7.2.3 Relationship between EI, Teacher Effectiveness and Occupational Stress

While the intellectual standard and subject expertise of teachers are important there are undoubtedly other qualities as well, that predict future teacher effectiveness, which requires a combination of intellectual and personal attributes (Zumwalt & Craig, 2005). The results of the study indicate that the EI of faculty members has a significant positive relationship with their teaching efficiency both self-reported as well as student rated. It accounted for 47% of the variance in TES and 32% of variance in TRS. This is because emotionally intelligent teachers seek to have confidence not just in their content and materials but also in their flexibility and readiness to respond; they put energy into getting materials and methods
planned but also into preparing to meet learners’ expectations (Jensen, 1998). Positive relationship between the EI of faculty members and students-rated teacher effectiveness shows that learners’ perceptions may be influenced when the teacher uses EI. If learners perceive the teacher as showing care and respect towards them, they are likely to interpret the strictness of the teacher in a positive manner and try to follow the instruction given by him or her (Mortiboys, 2005).

Occupational stress among faculty members revealed a significant negative relationship with teacher effectiveness and accounted for 17.3% of the variance in TES and 27.8% variance in TRS. Stress beyond certain limit affects physical and mental well being (Siu, 2002), leads to reduced effort and job commitment, unfocussed attention (Aghdasi & Kiamanesh, 2011), low job satisfaction and lack of motivation (Morris & Long, 2002). These factors combined together may lead to reduced work efficiency. A significant positive relationship between EI and OS found in the current study is convergent with the findings of the study by Gardner (2005), Ramesar, et al. (2009) and Goswami & Talukdar (2013) on employees from different professions. The findings of the current study indicate that EI may help the faculty members in dealing with their occupational stressors more effectively which may lead to better teaching efficiency. This could be because EI works as a significant moderator of the relationship between OS and well-being (Bar-On, 2005; Mikolajczak et al., 2008). It helps in adaptive coping (Darolia & Darolia, 2005), better interpersonal relationships and managing organisational challenges and resources to get more out of work (Welch, 2003).

7.2.4 Specific EI Competencies for Managing Occupational Stress

Managing Relations, Self Motivation and Commitment accounted for the maximum variance in OS among faculty members. Emotional Stability and Self Awareness were also found to be significant in dealing with OS among faculty members. Thus, developing these key competencies may help the faculty members significantly in managing stress. Empathy, Integrity, Self Development, Value Orientation and Altruism, although significant as predictors for OS, but their predictive significance was relatively less. This was probably because these competencies indirectly help in managing stress by developing other competencies. For example, empathy may help in emotional stability and managing relation; integrity and value orientation may help in commitment; self development may help in self
motivation; altruism may help in empathy and managing relations. Table-B in Appendix 1 indicates strong inter correlations between these EI competencies.

i. **Self Motivation and Commitment:** A person who is committed to his job works with a positive attitude and does not mind putting extra effort. Self motivation helps a person to remain focused on his work and perform well. If a person enjoys doing his work the feeling of stress is not there. Leong, Furnham and Cooper (1996) reported that employees who were more committed to the organisation also had higher levels of health and well-being. Thus, it can be concluded that faculty members who are able to recognize emotions they experience at work, who know when and how to express their emotions, who are able to control very strong emotions from affecting the way they behave in the workplace have a clear sense of what they need to do and of what others expect of them, are committed to their job and experience less stress.

ii. **Emotional Stability, Managing Relations and Empathy:** As noted by Spector and Goh (2001) an employee who has emotional stability feels in control of a situation, is likely to appraise it differently as compared to an employee who lacks this feeling of emotional control. Therefore he suffers less from the experience of OS. People who are able to effectively control strong emotions at work and not let those emotions affect the way they interact and perform at work are able to manage better relations so that they are able to get help from others and manage their resources more efficiently. Empathy helps them in understanding others’ views. This creates a cordial work environment and leads to better interpersonal relationship. They are more able to understand their job requirements and expectations and therefore less likely to experience conflicting demands and are more likely to express themselves and communicate in a better manner; are more able to deal with issues related to skill-work fit and to any queries over recognition (Gardner, 2005).

iii. **Self Awareness:** Having the ability to recognize how an individual is feeling (emotional self-awareness) and to express those feelings accurately (communication skills) may assist him in being able to manage stress at work. A faculty member who is able to recognize feelings related to stressful situations (such as worry, anger, frustration, or fear) could use these negative emotions as indicators of a problem in the environment and so take action to change these emotions (such as talking to their seniors), thereby dealing with the stressor effectively. People who have high levels of emotional recognition and expression tend to be
good at communicating how they are feeling and therefore are more likely to have others in
their workplace understand their feelings in regards to the tasks they are doing and the
achievements they are making. It may be through the ability to recognize emotions that a
person can use the experience of negative emotions as a warning that feelings of stress are
increasing and being able to manage these negative emotions he is more able to deal with
the stressor than if the negative emotions continued unchecked Lazarus (1999).

7.2.5 Specific EI Competencies Influencing Teacher Effectiveness

This study explored the relationship between EI competencies and teacher effectiveness and
also sought to identify which EI competency would significantly predict teacher
effectiveness. Results supported the existence of a significant positive relationship between
all ten competencies of EI and both self-reported and students-rated teacher effectiveness.
While Emotional Stability accounted for the maximum variance in both TES and TRS, Self
Motivation emerged as the best predictor for TRS. Collectively with Managing Relations
they accounted for the maximum variance in both TES and TRS.

Self Awareness, Empathy and Integrity were also quite relevant for predicting teacher
effectiveness. Commitment, Self Development and Altruism were significant as predictors
for teacher effectiveness but their values were relatively low. Value orientation was not
significant in predicting teacher effectiveness. The findings indicate that focusing on just six
most significant competencies i.e Emotional Stability, Self Motivation, Managing Relations,
Self Awareness, Integrity and Empathy will help considerably in enhancing teacher
effectiveness among faculty members. Relevance of these EI competencies in predicting
teacher effectiveness is discussed below.

i. Emotional Stability and Managing Relations may underlie the ability of a teacher to be
inspirationally motivating and intellectually stimulating. It is because teachers who are able
to manage positive and negative emotions within themselves are able to understand the
effects of positive and negative emotions on their work performance and on others.
Therefore, emotional stability revealed a high correlation with managing relations (refer to
Appendix 1: Table-B) in the currents study, which emerged as the second best significant
predictor for students-rated teacher effectiveness. Managing relations develops a better
understanding between teachers and students creating a positive environment for learning. It
helps to intervene and solve problems before they become serious. Emotional stability of a teacher helps in avoiding emotional exhaustion and conflict with others which subsequently helps in better coping with stress and burnout thus improving performance (Slaski & Cartwright, 2003; Nikolaou & Tsaousis, 2002; Salami, 2010). Finding ways to deal with anger, fear, anxiety and sadness channelize emotions to a positive end and is an essential sign of emotional competency (Sutton, 2004).

ii. Self Motivation and Integrity: Self motivation helps to articulate a vision for the future and talk optimistically which enables faculty members not only to motivate themselves but also to encourage and stimulate their students. It helps in self development as well as development of others. Self-development motivates a teacher for personal growth. He/she tries to develop himself/herself even if his/her job does not demand it. Integrity was also one of the important predictors of teacher effectiveness. A teacher who is honest, upright and true to him/herself and others is sincere and committed to his/her work. This is supported by a significant correlation between integrity and commitment (Appendix 1: Table-B).

iii. Self Awareness helps faculty members identify the strengths and weaknesses of their present teaching performance and gives direction for future improvement. It is revealed in the present study by a significant correlation between self-awareness and self-motivation (Appendix 1: Table-B). Knowing one’s emotional strength and weaknesses is of great help because the self has to constantly respond to the outer world. Without recognizing our own emotions, we will be poor at managing them, and less able to understand them in others. Therefore, self-awareness also plays a crucial role in empathy, or sensing how someone else sees a situation and managing interpersonal relationships (Carver, 2003; Goleman, Boyatzis & McKee, 2002). A teacher who has better awareness of his own emotions also has a better awareness of the emotions of his/her students and colleagues. This is supported in the present study as significant correlations were found between self-awareness, emotional stability and managing relations (Appendix 1: Table-B).

iv. Empathy: Interestingly, according to students’ ratings, empathy was not a very strong predictor of teacher effectiveness. This was probably because a teacher may be high on empathy but he/she may not have acquired the skills, based on empathy, that lead to students’ satisfaction in teaching, the ability to coach or monitor their progress, or to resolve conflict. Teachers’ self-reported empathy had a better predictive value for teacher
effectiveness as it helps in understanding the emotions of others which leads to better interpersonal relations and also helps to deal effectively with conflicts (Welch, 2003). This is supported in the study as empathy showed a significantly high correlation with emotional stability and managing relations. Empathy also revealed significant correlations with altruism and commitment (Appendix 1: Table-B). This may be because empathy helps teachers in understanding the needs and expectations of the students, thus motivating them to be committed for better teaching.

Predictive significance of Value orientation and altruism for teacher effectiveness was low, although there correlations were significant. Appendix 1 (Table-B) indicates that value orientation and altruism were significantly correlated with overall EI and its other Competencies which means that probably value orientation and altruism do not have a direct impact on teacher effectiveness but they are relevant for developing other EI competencies like self-motivation, commitment, self-awareness, emotional stability, managing relations and empathy which help and motivate faculty members for better performance. The correlations among EI competencies found in the present study support the findings of the earlier studies (Boyatzis, Goleman, & Rhee, 1999; Boyatzis & Ratti, 2009) that EI competencies are interdependent i.e. they have strong interactions and having an EI doesn't guarantee the competencies will be demonstrated hence they may also influence performance indirectly.

7.3 Discussion of Secondary Objectives

7.3.1 Difference between Self-reported and Students-rated Teacher Effectiveness: Need for Direct Feedback

The findings of this study reveal that most of the faculty members reported their teacher effectiveness much higher than what students had rated. This could be because of social desirability or due to general human tendency of being unaware about our own flaws. Quite often we are not able to understand our flaws unless we get a genuine feedback from others. The research literature (refer to Chapter 4, Sec. 4.6.2) indicates that most teacher evaluation systems currently in use are not able to provide meaningful feedback to teachers or serve as a basis for professional development. According to Pallett (2006) the actual use of student ratings for formative purposes falls far short of its potential because institutions sometimes
place too much emphasis on the summative component of ratings. When student ratings are overemphasized for summative evaluation and underutilized for developmental purposes, faculty often lose trust in the process and see little or no benefit in paying attention to official feedback from students. Moreover, faculty may become defensive on getting formal corrective feedback from the authorities or their super-ordinates.

Kember, et al. (2008) developed a four-category scheme for assessing quality of self-reflection among instructors. In non-reflection, an instructor simply looks through the ratings without giving them much thought. At the second level of understanding, the instructor attempts to grasp what the ratings mean but does not relate them to his or her own experiences. It is not until reflection that instructors relate the results to their own experience, teaching the specific course. Finally, in critical reflection the teacher undergoes a transformation in perspective, perhaps brought on by the disequilibrium or cognitive dissonance produced when the feedback from student ratings differs from the teacher’s view of how things went.

As the career readiness agenda demands more from teachers, it becomes even more pressing to provide teachers with clear indications of the quality of their teaching – and the path to improvement. Even currently effective teachers may need to rethink about their approaches in order to meet the ever changing demands of higher education. This will help in developing a good rapport between the students and the faculty members. Moreover, this kind of feedback will be more genuine and will be free from the drawbacks of official feedbacks. The students will not be influenced by any personal grudge against the teacher in this kind of feedback as it will be totally based on mutual understanding between the students and the teacher solely for better teaching process and better understanding of the concepts taught.

7.3.2 Difference in Emotional Intelligence, Occupational Stress and Teacher Effectiveness between Medical and Engineering Faculty Members

A study conducted by Singh (2003, refer to Chapter 3, Sec. 3.7) grouped Indian professionals from 18 different professions into three clusters based on the levels of EI required for success in their respective professions. According to Singh’s study teaching was under second cluster requiring high EI level to be successful, whereas, medical and
engineering professions were under third cluster where individuals with moderate EI can also perform effectively. When average EI score of the professional from all 18 professions under study were ranked from high to low, the EI score of doctors was slightly higher than that of engineers. In the current study, the EI of engineering faculty was found to be higher than that of medical faculty, probably because most of the engineering faculty members had worked as teachers in engineering colleges and not as engineers, thus by profession, they were more like teachers than engineers. In case of medical faculty it is mandatory to have a substantial experience of clinical practice before becoming eligible for teaching and even as teachers, professionally they are doctors. Thus, by profession, medical faculty members are doctors as well as teachers and according to Singh’s study, doctors are in the third cluster whereas teachers are in the second cluster. This could be one of the reasons of relatively lower level of EI reported among medical faculty members than those of engineering faculty.

The second reason could be that as doctors medical faculty has to deal with large number of patients so, probably they get immune to emotional aspects of other people. For example, in Singh’s study nurses scored lowest in EQ score despite being in the profession where more EI is required, probably because taking care of the patients becomes their routine work. The third reason could be that medical faculty was more honest in reporting their EI as compared to engineering faculty, because even in self-reported teacher effectiveness engineering faculty showed the tendency of relatively inflating their responses. However, there was no significant difference in the perception of OS between the two groups, even when many of the items were organization sensitive, like salary and working conditions. Therefore, it cannot be assumed that engineering faculty members were less honest in reporting their EI.

Interestingly, according to students’ ratings, there was no difference in the teacher effectiveness of medical and engineering faculty probably because students perceive faculty members more as teachers than as doctors or engineers. There was no difference in the perception of occupational stressors among medical and engineering faculty members except for low status where engineering faculty members reported higher feeling of low status than that of medical faculty. This could be because according to social norms working as engineers is considered to be more prestigious than working as teachers and this could subconsciously affect the feelings of engineering faculty members. Whereas, in case of
medical faculty even if they are taking classes in medical colleges they are still working as doctors and their social status is high.

7.3.3 Gender Differences in Emotional Intelligence, Occupational Stress and Teacher Effectiveness among Medical and Engineering Faculty Members

7.3.3.1 Gender Difference in EI

Research findings on gender differences in EI are not very consistent and there are discrepancies in this regard. Some studies have found significant gender difference in EI both in professional and personal settings (Mayer & Geher, 1996; Mayer, Caruso, & Salovey, 1999; Mandell & Pherwani, 2003). Daniel Goleman (1998) asserted that no gender differences in EI exist, admitting that while men and women may have different profiles of strengths and weaknesses in different areas of emotional intelligence, their overall levels of EI are equivalent. The discrepancy may be due to choice of measurement. Brackett and Mayer (2003) found that females scored higher than males on EI when evaluated with a performance measure (the Mayer-Salovey-Caruso Emotional Intelligence Test). However, when using self-report measures, such as the Bar-On Emotion Quotient Inventory (EQ-i) and the Self-Report Emotional Intelligence Test (SREIT), they found no evidence for gender differences.

In the present study also self-report measure was used and no significant gender difference could be seen in EI of the faculty members. Male and female faculty members did not differ even in EI competencies. This is convergent with the findings of the study conducted by Cumming (2005) exploring the relationship between EI and workplace performance with a sample of workers from New Zealand. In addition, she studied the relationship among demographic factors, EI and workplace performance. The study did not show any significant relationships of EI with any of the demographic factors like gender, age, occupational groups and education. Study by Singh (2007) also revealed no significant differences between male and female software professionals in terms of emotional intelligence and overall leadership effectiveness. Perhaps gender differences exist in emotional intelligence only when one defines EI in a purely cognitive manner rather than through a mixed perspective (Stys & Brown, 2004). It could also be that with changing social structure where more and more females are joining the work force, they are becoming emotionally stronger.
7.3.3.2 Gender Difference in Occupational Stress

Many researchers have given evidences that there is substantial difference in terms of the stress that is perceived and felt by both the genders. The differences in hormone dictate the distinction between male and female modes of feeling, realizing and coping up with stress. Studies have revealed that men react with fight-or flight techniques whereas women react with tend- or- befriend method. The gender based differences have also been noticed in terms of intensity and frequency of stress, (Hogan, Carlson, & Dua, 2002; Tamres, Janicki & Helgeson, 2002). Study by Matud (2004) reveals that women, as reported, are more stressed than men. Women also felt that many of the major life events were, to a great extent, out of their control. Evidences suggest that women and men are stressed by different types of situations. Men are more likely to list finances (worries about salaries and benefits) and work-related events as the main source of their stress, whereas women are more likely to list the nature of work, interpersonal relationships, family and health-related events as their major stressors (Matud, 2004; Tytherleigh et al., 2007).

However, like other psychological variables findings of the studies on gender difference in stress and its factors are also not very consistent. Study by Singh and Singh (2008) indicated significantly negative relationship of EI with organisational role stress for both the gender and the medical professionals as a whole, working in privately managed professional hospitals. Study by Akomolafe (2011) on secondary school teachers also, showed no significant gender difference in OS. Dasgupta and Kumar (2009) found no significant difference between the stress levels among male and female doctors except in cases of – inter-role distance and role inadequacy, which was found more in male doctors.

In the current study also no significant difference was found in the occupational stress level of male and female faculty members. However males and females differed in their perception of occupational stressors as, females scored higher than males in role ambiguity and unprofitability. Thus, we can say that with the changing social scenario females are becoming equally competent in handling demands of their work environment and especially in teaching profession. It has been observed that the differences between men and women are not only attributed to gender, but also to how men and women are socialized. For instance, men are socially conditioned to be more independent, problem-focused, and less likely to express their emotions. Women, on the other hand are encouraged to be more
dependent, emotional, empathetic and supportive of others. Therefore they increase their span of social networks as compared to that of men (Day & Livingstone, 2003).

7.3.3.3 Gender Difference in Teacher Effectiveness

While a large body of research focuses on the gender of students and their academic performance, less research explores the impacts of a teacher's gender on their teaching performance. Studies have revealed that early experience, biological factors, educational policy, and cultural context interact in complex ways contributing to gender differences in science and mathematics achievement and ability (Halpern et al., 2007). Yazıcı and Ertekin (2010) found that females have more mathematics teaching anxiety than males, especially in terms of subject knowledge and self-confidence. Gender stereotypes that males have a better understanding of science and mathematics, based subjects whereas female are better at teaching languages (Beilock et al., 2010), is generally prevalent in many societies. In line with gender stereotypes, males are expected to be proficient in math, science, and technology, whereas females are reared to be interested in the arts and humanities. Because of this, expected success of females in a given scientific task is generally lower than that of their male counterparts, even if they are equally competent (Ceci & Williams, 2010).

This societal belief however has not been supported much in the research community with regard to the published literature. With changing social perception, differences in performance between males and females have shrunk to nearly insignificant levels on most standardized tests and most researchers don’t support the notion of innate superiority of males in math and science (Johnston, 2005). The results of the present study are convergent with this view, as there was no significant difference found between the teacher effectiveness of male and female faculty members. However, in the regression analysis of EI and teacher effectiveness, the variance of students’ ratings of teacher effectiveness for male faculty members was higher than that of female faculty members. But in self-reported teacher effectiveness, the variance of male faculty members was only slightly higher than that of females. According to O'Hara, cited by Johnston (2005) in Stanford University report, we are still in a state of mixed findings when it comes to gender and brain processing. Therefore, more gender studies are needed that address these constructs.
7.3.4 Gender Differences in Anxiety, Optimism, Achievement Motivation and Academic Achievement among Medical and Engineering students

7.3.4.1 Gender Difference in Academic Achievement

Society has different expectations for the genders. After reviewing decades of research on gender differences, Ceci and Williams (2010) concluded that culture plays by far the bigger role in men and boys’ higher interest and achievement in math, science and spatial ability. Motivation plays important role in explaining sex differences in academic achievement (Steinmayr & Spinath, 2008). In the context of academic achievement, gender role stereotypes are confirmed when motivation is studied domain-specifically, with boys being more confident and interested in mathematics and science compared to girls, while girls prefer and feel more confident about language-related domains compared to boys. However, with changing socio-cultural norms, this gender stereotype is gradually reducing and girls are taking math and science courses in a significantly larger number (Ceci & Williams, 2010). When girls see opportunities for themselves in science and technology, they’re more likely to pursue such careers (Else-Quest, Hyde, & Linn, 2010). The results of the present study are convergent with this view, as there were no significant gender differences found in the academic-ach of the students.

7.3.4.2 Gender Difference in Anxiety

The present study did not show any significant gender differences in anxiety among students. However, research findings in this regard are quite inconsistent. Some studies have found significant gender differences with regard to general as well as specific test anxiety (Rodarte-Luna & Sherry, 2008; DeCesare, 2007; Abdel-Khalek & Alansari, 2004; Mackinaw-Koons, 2000). But the findings of the studies conducted by Fiore (2003), Baloglu (2003) and Gierl & Rogers (1996) reveal that males and females experience no significant difference in academics related anxiety. Chandler (2006) found no significant gender difference in test anxiety among 10th grade students, but 6th grade male students were more anxious than girls of same grade.

Researchers have indicated that reasons for some of the studies indicating lower anxiety level in males than in females could be due to societal expectations; males may report low anxiety because they do not want to admit their weaknesses and are less likely to be
completely honest on reporting anxiety (El-Zahhar, 1991; Zoller & Ben-Chaim, 1990). The reason for decreasing gender gap on these constructs is probably because social perceptions and societal beliefs regarding gender roles and gender abilities are changing due to which females are becoming emotionally equally competent (Bolzendahl & Myers, 2004).

### 7.3.4.3 Gender Difference in Optimism

The present study did not show any significant gender difference in optimism. The findings are convergent with the findings of some of the earlier studies (Padhy, Rana, & Das, 2012; Huan 2006; Tusaie 2003; Sitz & Poche, 2002). Gender differences in optimism are domain specific. For example males are more optimistic in financial matters (Chang, Tsai, & Lee, 2010; Jacobsen, Lee, & Marquering, 2008). Patton, Bartrum and Creed, (2004) indicated gender difference in optimism related to career goals. Lai and Cheng (2004) found no significant gender difference in optimism related to health issues. Puskar (2010) established that among rural youth men were more optimistic than women but Iceksion and Kaplan (2011) found that female college students were more optimistic than male students.

### 7.3.4.4 Gender Difference in Achievement Motivation

Gender differences in ach-mot have been studied widely (Meece, Glienke, & Burg, 2006). But, the findings of gender studies on ach-motivation are also quite inconsistent. Gender analyses in the current study revealed female students to be higher in ach-motivation than their male counterparts. Some researchers like Kaushik & Rani (2005), Ligon (2006), and Nagarathanamma & Rao (2007) have found no significant gender difference in this regard. While Adsul et al. (2008), and Liu & Zhu (2009) found male students to be having higher ach- motivation than females, Salili (1996), Martin (2004) and Shekhar & Devi (2012) found females to be scoring higher. The inconsistency in the findings could be because gender differences in ach-motivation are rooted in socialization processes rather than in basic differences between women and men (Adsul, 2008; Wigfield & Eccles, 2002).

In the current study, female students scored higher in all motivational factors except co-curricular, sports & adventure, where male students scored higher than females. According to gender role expectations, females are more sincere, more organized and systematic in their work methods, show respect for elders and are more concerned about their self-image. Fouladchang, Marzooghi, & Shemshiri, (2009) in their study on undergraduate students in
an Iranian university found that males had a greater performance-approach goal orientation than females. Sports and adventure may promote performance-approach goal orientation because of which male students would have scored higher in these activities. According to Wigfield & Eccles (2002) males and females have different competence-related beliefs. Results of their study revealed that boys had higher competence beliefs in sports activities and math compared to girls. However, girls had higher competence beliefs in reading and social activities compared to boys. Salili (1996) in their study on British and Chinese high school students found that Chinese high school students had significantly higher n-Ach scores than their British counterparts. Female subjects of both cultures had higher scores than males. The findings of these studies support the view that gender differences in ach-motivation are rooted in socio-cultural factors rather than in basic differences between women and men.

7.3.5 Difference in Anxiety, Optimism, Achievement Motivation and Academic Achievement between Medical and Engineering students

The courses related to medical and engineering fields differ in many aspects like course duration, curriculum, fees structure, number of seats and colleges, faculty experience, competition, career perspectives, future job opportunities and working conditions. These factors may directly or indirectly affect students’ anxiety, optimism and academic-ach. Therefore, anxiety among medical students was comparatively high, while optimism and academic-ach among engineering students was higher than those of medical students. To get admission in medical and engineering colleges students need to have a substantial level of ach-motivation. This could be the reason why no significant difference was found in the overall ach-motivation of medical and engineering students.

7.4 Conclusion

The study revealed high level of anxiety among the students which revealed a negative relationship with their academic performance. Therefore, it is suggested that the faculty members need to discuss anxiety related issues with the students. As optimism and achievement motivation (two important EI competencies) revealed negative relationship with anxiety while showing a positive relationship with students’ academic achievement, it is also suggested that developing EI competencies among students will not only help them in
coping with anxiety in a better manner but will also help them in better academic performance. Optimism helps students to believe in their abilities which motivate them to perform better. The key motivational factors for academic performance revealed in the study were: Self determination, Relevance of college, Future goals, Academic motivation, Social goals and Competency beliefs. The results support the Multiple Factors Theory of achievement motivation proposed by Dowson and McInerney (2001). It is important for the faculty members and the students themselves to understand these motivational aspects of learning for better academic performance. An interesting fact revealed in this study was about the relevance of college for future goals. Therefore, the authorities must take care to provide good teachers and good infrastructure to the students.

The study identified Emotional stability, Managing relations, Self motivation, Self-awareness, Commitment, Integrity and Empathy as key EI competencies to manage occupational stress and enhance teacher effectiveness among faculty members. Employees who feel in control of their emotions in the workplace and who know how to deal with emotions appropriately and effectively are less likely to report feelings of stress as they appraise stressors differently than those employees who are less able to handle these emotions. EI acts as moderator of the relationship between occupational stress and well-being (Mikolajczak et al., 2008) which subsequently helps in better performance.

As suggested by Abraham (2000) it may be that the components of EI related to emotional stability (emotional regulation and management) contribute a great deal to effective social skills (managing relations) leading to social support and getting help in job related matters. EI increases the capacity of the employee to communicate effectively and to utilise their skills to alter dissatisfaction and promote satisfaction within the workplace. Employees who readily use emotions in the workplace have a stronger sense of emotional attachment to their workplace and the people in their workplace, and that it is this sense of attachment that makes them feel a strong sense of loyalty and commitment (Gardner, 2005). Collectively the results of the study provide a promising insight into the role of EI in the teaching learning process for medical and engineering education and make a theoretical contribution as to the relationship between anxiety, optimism, achievement motivation and academic performance among students and EI competencies, occupational stress and teacher effectiveness among the faculty members.