Chapter 5

Discussion of results

**Discussion of Results**

The result of this study depicts that the EI of the students predicts cohesion in teams. As the problem has been why some teams fail to collaborate (Moore and Mamiseishvili, 2012), the results suggest that teams whose participants are emotionally intelligent are likely to be cohesive and not fail. There are several studies conducted which have similar findings. This include studies done by Moore and Mamiseishvili, (2012) Jordan and Troth (2004), Prati et al (2003) amongst others. As a result, this current study has added to the theory that EI has an effect on TC.

Furthermore, the sub competencies of EI (achievement orientation, empathy, influence, and self-confidence) also shows a significant relationship with TC. Except for achievement orientation which according to this study there is no significant relationship. This competence can be linked to motivation which drives people to achieve team’s objectives and goals. Albeit, TC may be important, but not necessarily effective for production (Forsythe, 1990). This implies that in this study though the team was cohesive, the participants were not that emotionally intelligent in this competence to achieve teams goals or objective. This results is consistent with the findings of (Goleman, 1998) which propose that cohesiveness is important but does not constantly justify effectiveness and high performance in teams. However, Influence and TC are significantly correlated. This suggest that the participants could influence each other in one way or the other. This ability could help trigger participants to behave in certain ways which is helpful for both the team and themselves. That is, positive behaviours are encouraged while negative behaviour are discouraged.

More so, Empathy and TC are significantly correlated. This implies that the participant could easily put themselves in the place of another. By so doing they could stay together, work and achieve the team’s objectives. Rapisarda (2002), stated that this competency probably can impact a team’s effectiveness in both cohesiveness and performance. Regarding Self- confidence, the analysis revealed a positive significant impact of EI on TC. Though in the study of Rapisarda (2002) the relationship between the two competencies was insignificant. Self- confidence is having knowledge about one’s self-esteem and abilities. The ability of a person to identify his or her feelings in the now and been able to deliberate, discuss and reveal those feelings to others is known as cognizance of one’s emotions (Jordan and Lawrence, 2009). Wolff et al., (2002) discovered that persons who can communicate well in teams and have less intense emotional reactions are highly cognizance of their emotions. Therefore, the main concern in education should be helping students become more cognizance of their strengths, flaws, and their emotions. In this regard, the students’ needs to be aware of their strength and flaws and have confidence in themselves to enable them disclose their feelings to their team mates.

Furthermore, the demographic factors resulted to have a positive effect on EI but not statistically significant. With gender, the methodology and sample may have contributed to its insignificance. As a population of 110 students with 12 being only females. Literature shows inconsistent evidence on gender differences in emotion recognition (Fischer et al., 2018). With regards to age, the study is composed of limited age groups so there may stand a chance of statistical weakness in the findings and the range of age is narrow. Lastly family income, might not have had a significant effect on EI on TC due to the sample size of the survey.

**7 Practical Implications**

The results from our study is obvious that Emotional Intelligence (EI) is a fundamental block upon which teams are built. EI prescribe ways to deal with individual differences; by knowing the emotional state of oneself and others and act accordingly. Directions are given as to how team members can tolerate one another and depend on each other for the attainment of team objectives. Not forgetting to call the foul besides, EI is not about being all nice. With this knowledge, mishaps will be on the minimal if not fully eradicated. This is because team process will be pleasant. At the workplace, due to EI, productivity will also be on the increase and profitability in the long- run will also increase. This will help organizations to be profitable and sustainable in this global competitive era as according to Darshini and Gomathi (2018), EI is now a trait mandatory for every employee in an organisation.

To this point, this paper reveals that the sub competencies (self-confidence, achievement orientation, empathy and influence) of EI also had a significant relationship with TC, except for achievement orientation. Here it can imply that the team was adequate but not necessarily effective. Notwithstanding the fact that, all the other competencies was significantly correlated with TC. This suggest that an individual is required to be endowed with such competencies in order to work in a team efficiently.

The study has explored how demographic factors (gender, age and family income) moderate the effect of EI on TC. It was shown that, though all these factors had a positive interaction with EI, statistically it was not significant. This implies that, a person’s gender, age and family income does not have any influence on EI on TC. Therefore the premise could be an individual can be emotionally intelligent regardless of his or her gender, age and family income. This suggests that, one’s background doesn’t really affect his or her EI on TC.

With all these said, other factors like conducive working environment, team norms amongst others, will help in a smooth team process. EI plays a paramount role in team’s efficacy but other factors also matters equally. Therefore, at the workplace, employers should put in the needed effort to ensure that while EI helps in the success of teams for a long-term profitability for the organization, all other things should also be in synchronization. This will make employees, employers, stakeholders, investors, the government at large benefit from the profitability of the organization.

**8 Conclusions**

In view of the salient role played by Emotional Intelligence (EI) on Team Cohesion (TC) receiving continuous attention among scholars and academicians, previous studies have overlooked EI benefits to teams amongst engineering students in India. EI has become crucial among teams, as recognizing and managing the emotions of self and others help attain effective team performance. This idea is currently gaining attention because, in organizations human relations are affected by emotional factors and every successful organization demands employees who can exhibit their technical abilities, connect well and manage their emotions (Cote et al., 2006; Fiori, 2009). Hence this paper aimed at assessing the importance of EI on TC amongst engineering students in India. Furthermore, the study addressed the question of which of the competencies of the Mixed Model is more likely associated with TC. Based on a survey of 110 first year engineering students of IIT(ISM)-Dhanbad in India, using scaled questionnaire, there is a convincing significant relationship between EI and TC. The findings supports the theory that EI has an effect on TC (Moore and Mamiseishvili, 2012). In all, it can be said that EI has an effect on a team’s cohesiveness and this would make students “star performers”. Furthermore, on the account of the effect of EI sub competencies, the findings revealed that unlike achievement orientation, all the other components significantly affect EI. Overall, the study findings attest to the fact that EI has become a salient input in building a successful TC. To managers or management of organizations, they will be enlightened on EI competencies and how essential it is within organizations. By this, they will know which candidates to recruit, select and employ. This will make the workforce more effective in their line of duty. Also, the existing employees can be trained to acquire and develop their EI competencies. To employees, they would be well-informed about how to behave in teams. Knowing that as they interact with one another their behaviour has the propensity to affect the performance and productivity of the organization. Therefore, they will know which behaviour to encourage and those to discard. Besides, EI is not mainly concerned with liking each other at the expense of calling the foul. To policy makers of various educational institutions, they should see to it that EI is added as a course to be studied by engineers. That is to be included in the course curriculum to help equip them to possess and develop EI competencies. To students, they will have the mandate to study and apply such competencies whenever put in teams to work. Knowing that, to be a “star performer” you need to possess both emotional and technical capabilities. Lastly the findings provide more insight to the theory of EI, from an empirical point of view, adding up to the already existing ones.

Though the study has various benefits, it is still not free from the following limitations. First, the study was only conducted on a class of students in India, hence, the generalization of the findings might be in question. More so, the study only applied two out of the numerous EI measures, hence, future researchers can use different models of EI like the Ability based model or Trait model. Also, TC can be measured using other cohesion measures. Again, the sample can be increase by undertaking a cross regional analysis. Lastly, different branch of engineering can be studied as this avenue of research is still new and needs more empirical work to be done in order to have strong empirical support as the current study focused on the Industrial Engineering Management.

**DISCUSSION OF RESULTS**

This present study sought to assess the emotional intelligence levels of IIT students in India. From the descriptive statistics, the present study established that students (participants understudy) at IIT (ISM) are somewhat emotionally intelligent. This implies that when the participants develop and improve on their EI, they could be star performers at the work place. As Daniel Goleman concluded, it takes both EQ and IQ for a person to be a star performer. The results further provide empirical evidence that students at IIT (ISM) can develop a high level of emotional intelligence which could make them star performers. The possible reason could be that some subscales of emotional intelligence can be linked to academic performance which is measured by GPA. As such students who have moderately high GPA have the required EI skills than those who have lower GPA. As IIT’s are top most engineering institute, only students who are academically inclined (moderate to high GPA) can gain admission. For this reason, these students can better manage their emotions. Also, it can be said that IIT students possess ‘interpersonal intelligence’ which can be taught and nurtured. This capability helps one to discern and distinguish between others’ emotions specifically their motivations and intentions, temperament and moods (Gardner, 1993). The results of this study further fit the trending results in the literature (See Shipley et al., 2010).

Again, gender and EI was not statistically significant. This implies that a person’s gender does not affect their EI. Therefore, students at IIT (ISM) Dhanbad, whether male or female, their EI does not depend on their gender. This result corroborates with previous studies (Meshkat and Nejati, 2017; Nasir and Masur 2010; Ahmad et al., 2009; Goleman 1998, Shehzad and Mahmood, 2013; Cakan and Altun, 2005). The possible explanation for this could be that both males and females may have their unique way of handling emotions. Previous literature shows how differently males and females deal with emotional issues (Goleman 1998; Ahmad et al 2009). As research shows EI as “the ability to logically think with emotions to improve decision” (Mayer et al., 2016) may be different in the male and female gender. This difference may result in the differences in the sub scales of EI. In this current study, aside self-awareness, self-management, and empathy, gender has a significant effect on the other EI sub scales (social skills, and motivation) and EI. This could be that the participants are able to easily interact with their colleagues so as to work in teams and are able to internally drive themselves amidst challenges and setbacks to achieve the needed result.

More so, in line with the existing literature, there is evidence proving the reason why EI is not statistically dependent on a person age. The study results show that Age has no significant relationship with EI. This implies that a person’s age does not affect their EI. That is to say, in whatever age category a person might find themselves, it does not affect their EI. That is majority (94%) of the participants understudy were between the ages of 23-27 years which is predominantly the age range with which adolescence enter college. Thus, makes the sample limited and generalising the results would be challenging. Therefore, broader range of ages should be considered and examined in future studies. Even though few studies suggest that age affect EI (Mayer, Caruso and Salovey, 2000; Rippeth 2003), yet the results of this study warrant and explains why most researchers have opined that Age is not a predictor of EI (See Cakan and Altun, 2005; Atkins and Stough, 2005; Shipley et al., 2010).

Concerning work experience and family income, the results proved that there is statistically significant relationship with EI. This implies that an individual’s work experience and family income can affect his or her emotional intelligence. That is, for someone having working experience their EI could be affected due to their previous working experience, they might work better with others than someone with no working experience. The finding is also consistent with previous studies (Yee et al., 2019; Podila 2018) which affirmed that the working experience an individual has gained can shape his or her level of emotional intelligence.

Similarly, for family income, the study revealed a convincing and a significant relationship which proves to affect an individual’s EI because it is believed that once a person is from a rich or well to do family background, they tend to behave better than those from very poor background. They are well exposed and know how to act and behave well. This result is in consonance to previous studies (See Shipley et al 2010., Yee at al., 2019; Podila,2018; Cakan and Altun, 2005).

**CONCLUSION/ RESEARCH IMPLICATIONS**

There is no doubt that the evidence of identifying a student’s emotional intelligence helps in predicting personal and academic success, and this has consequential implications for students. Based on this, the present study aimed at assessing the Emotional Intelligence (EI) levels of IIT students at IIT (ISM)-Dhanbad, India. The analysis was done in two folds; first, to assess the EI levels of the participant’s understudy. Secondly, to compare the EI levels of the participants using demographic variables. Purposive sampling technique was used to sample 200 engineering students from various engineering department.

Drawing from the results obtained from the present study, it can be concluded that, emotional intelligence is an essential competence for success both in academia and in life in general. Students who are able to manage their emotions effectively tend to do well in the corporate world. Thus, it is imperative for students to be taken through emotional intelligence training, seminars, workshops and courses. This adds an important aspect to education as it prepares students to better cope with life’s demands and increase their ability to function and succeed in life.

Overall, the study establishes that EI is a key competence that people possess which helps in recognising and managing emotions and the emotions of others. With this, interacting and working with people is much easier. Goleman (1998) stated that irrespective of where people work, they are often judged on the abilities they possess other than job related skills. Therefore, to be successful, college students need to identify and build EI competencies needed to excel in the workplace.

From the salient contributions highlighted from this present study, it must be reiterated that the study has some pitfalls as well. First, the sample size of 200 is limited to provide evidence to support the generalisability of this study. As such, it is recommended that future studies should factor all IIT’s in India to provide results that will not put the generalisability of the results in question.

Also, this study applied the Daniel Goleman’s Mixed model which has received some criticism from scholars. For this reason, it is recommended for future studies to apply other EI models such as the ability-based model and trait model etc. could be used.

1. **Discussion**

The result of this study depicts that there is a positive significant effect of EI that predicts cohesion in teams amongst the nursing students of PMCH-Dhanbad. As the problem has been that nurses deal and work in a high demand of emotional instabilities. As a result, they are required to deal with their emotional states and that of their colleagues. This enables them to understand each other and work together to harness such situations. The results suggest that the participants are emotionally intelligent and they are cohesive which will help them succeed. There are some studies conducted that have similar findings. This include studies done by Codier et al., 2008 and Guleryuz et al., 2008. As a result, this current study has affirmed the theory that EI has an effect on TC amongst nursing students.

Furthermore, the sub competencies of EI (own aware, own manage, others aware and others manage) also show a significant relationship with TC except for own aware and others aware. This competencies can be linked to the ability to recognise one’s own and others emotions, strength and weakness. This implies that in this study though the team was cohesive, the participants did not possess these competencies of “own aware” and “others aware”. This implies that “own aware” and “others aware” might be important but not necessarily important in the cohesiveness of a team. These competencies deal with an individual’s own ability to recognise his or her emotional abilities and that of others and do not require the management of emotions which helps to facilitate cohesiveness.

However, “own manage” and “others manage” and TC are significantly correlated. This suggest that the participants could influence and manage their own emotions and that of their colleagues. This will help the participants to deal with negative emotions and to encourage positive emotions. The participants will behave in a proper manner which is helpful for both the team and themselves.

More so, when the sub competencies correlated with TC all did correlate with TC. This implies that the participants understudy demonstrated each of the sub competency of EI that is “own aware”, “own manage”, “others aware” and “others manage”. This shows that the ability to identify one’s own feelings and deliberate, discuss and reveal these feelings help to understand one’s own emotional state so that they can work in a team with others. Wolff et al. (2002) discovered that persons who can communicate well in teams and have less intense emotional reactions are highly cognizance of their emotions.

Again, “own manage” and TC correlated. That is when an individual can manage their own emotions they can deal with others and work in a team. This competency deals with the ability to deal with disrupting emotions and to delay gratification. As the team mates are able to deal with own distressing emotions they can as well work better in teams as they are able to deal with their own emotional states.

Furthermore, “others manage” correlated with TC. “Others manage” deals with the management of other's emotions to ensure that working relationships are managed and maintained. This competence is necessary to be able to deal with others. The nursing students display such competence and are critical for them to exhibit that in team work.

Again, “others aware” did correlate with TC. “Others aware”, deals with the cognisance of others emotional displays and detecting false expressions of emotion. This ability is essential because it helps in the interaction of people. Having sub competency will help the participants under study to deal with their colleagues and others well.

Lastly, the demographic factors had a positive effect on EI but not statistically significant. With gender, since all the participants were females there was no moderation effect on EI. However, Literature shows inconsistent evidence on gender differences in emotion recognition (Fischer et al., 2018). With regards to age, the study is composed of limited age groups so there may be a chance of statistical weakness in the findings and the range of age is narrow. Lastly family income, might not have had a significant effect on EI on TC due to the sample size of the survey.

1. **Implications for Practice**

The findings from this study identified the effect of Emotional Intelligence (EI) on Team Cohesion (TC) amongst nursing students. Particularly, the sub competencies of emotional intelligence (own aware, own manage, others aware and others manage) were identified to have an effect on TC. EI is shown to be an essential competence that helps team mates to manage their own emotions and that of others. By knowing the emotional state of oneself and others, nursing students can act in a better way to facilitate their work schedule. This knowledge give them some directions as to how to tolerate one another and depend on each other to accomplish their objectives. Some of which pertains to caring and treating patients, working with other health practitioners etc. All these come about through interactions not forgetting to address all negative situations besides, EI is not about being all nice. Negative behaviours should be dealt with and be discouraged from ever happening again. With this knowledge, quarrels, squabbles and mayhems will be on the minimal if not fully eradicated.

Furthermore, at the hospital settings, having knowledge of EI, nurses will be able to deal with disrupting emotions and work amicably with one another. Severe incidents can be taken care of as information, expertise amongst others can be shared easily. This will help curb these severe incidents, which is likely to reduce the mortality rate. It can make most hospitals gain reputable status in the society and country at large. The sustainability of such hospitals in this global competitive era can be assured. According to Darshini and Gomathi (2018), EI is now a trait mandatory for every employee in an organisation.

This paper further reveals that the sub competencies (own aware, own manage, others aware and others manage) of EI also had a significant relationship with TC. Here the team was adequate and team mates did possess each of this competency. Therefore, participants should keep developing these competencies because in order to manage others emotions, one should be able to recognize the emotions of others. This brings to light that an individual is required to be endowed with all of the competencies in order to work in a team efficiently.

The study depicted that demographic factors (gender, age and family income) moderate the effect of EI on TC but it was not statistically significant. This implies that, a person’s gender, age and family income does not have any influence on EI on TC. Therefore the assertion made is that an individual can be emotionally intelligent regardless of his or her gender, age and family income. That is, one’s background doesn’t really affect his or her EI on TC.

With all these said, aside the emotional intelligence of people, other factors should be made available to make the working environment much conducive. Factors such as good facilities, machinery amongst others should be present to cause a smooth and better running of the hospital. EI however, plays a major role in team’s cohesiveness but the other factors also matter equally. Therefore, at the hospitals employers should put in the needed effort to ensure that while EI helps in the success of teams for a long-term performance all other factors should also be in synchronization. This will make nurses, doctors, other health practitioner, stakeholders, investors, the government at large benefit from the long term benefits of the hospital.

1. **Applying research to occupational health practice**

Nursing students are required to possess both emotional and intellectual capabilities in order to work in teams to harness the high demands of the nursing profession. Therefore, this study is conducted amongst nursing students in Dhanbad, India to examine the effect of EI on TC. EI and TC was shown to have a positive significant effect. Also, the sub- competencies of EI (own aware, own manage, other aware and other manage) are essential in teams. The study suggests that nursing students who possess these competencies could interact freely, share ideas and manage disrupting emotions amongst other health personnel's, patients and their relatives. This will enhance and create a positive ambience where everyone is free to interact with one another. It is essential to introduce EI in the curriculum for nursing students to learn and develop their various EI competencies.

1. **Conclusion**

In light of the important role played by Emotional Intelligence (EI) on Team Cohesion (TC) receiving continuous attention among scholars and academicians, in different field of profession, EI in the nursing domain is now gaining much attention. The concept is currently gaining attention because, in health sector there exists a lot of interactions and these interactions could be affected by emotional factors. Therefore for success in any institution, employers demand that employees can exhibit technical abilities, connect well and manage their emotions (Cote et al., 2006; Fiori, 2009). Hence this paper aimed at assessing the importance of EI on Team cohesion (TC) amongst nursing students in India.

Based on a survey of 100 nursing students of Patliputra Medical College and Hospital (PMCH)-Dhanbad in India, using scaled questionnaire, there is a convincing significant relationship between EI and TC. The result supports the theory that EI has an effect on TC (Moore and Mamiseishvili, 2012). In all, it can be said that EI has an effect on a team’s cohesiveness. Furthermore, on account of the effect of EI sub competencies, the findings revealed that unlike “others aware”, all the other components significantly affect EI. Above all, the study findings attest to the fact that EI has become an essential part in building a successful TC.

Overall, the above findings will be of benefit to top officials of hospitals as they will be enlightened on the various EI competencies. By this, they will know which candidates to recruit, select and employ. To nurses, they will be well-informed about how to behave in teams. Knowing that as they interact with one another their behaviour has the propensity to affect the performance and productivity of the organization. Therefore, they will know which behaviour to encourage and those to discard. Besides, EI is not mainly concerned with liking each other at the expense of dealing with negative situations. To policy makers of various health institutions, it is recommended that they see to it that EI is added as a course to be studied by nurses as it has been suggested in the study by Moawel et al. 2017. That EI is to be included in the course curriculum to help equip students to possess and develop their EI competencies. To the nursing students, they will have the mandate to study and apply such competencies whenever put in teams to work. Lastly, the findings provide more insight to the theory of EI, from an empirical point of view, adding up to the already existing ones.

Though the study has various benefits, it is still not free from the following limitations. First, the study was only conducted on a class of nursing students in Dhanbad-India, hence, the generalization of the findings might be in question. More so, the study only applied one (the ability based model) out of the numerous EI measures, as it has received criticism that it only focuses on the cognitive ability of a person. Hence, future researchers can use different models of EI such as the Mixed model and Trait model. Also, TC can be measured using other cohesion measures. Lastly, different sector of hospital say Private hospital can be used and the sample can be increased by undertaking a cross regional analysis.