A Study of Emotional Intelligence on Team Cohesion amongst Different Disciplines of Students; special reference to selected institutions in India (ISM and PMHC).

**Chapter 1**

* 1. **Introduction**

The importance of Emotional Intelligence (EI) at the workplace is highlighted by the nature of the job. Every job has its degree of emotional expression. For service industries, the degree of emotional expression might differ from the manufacturing industry. This does not withstand the fact that, EI is an essential ingredient for a productive workplace (Smigla & Pastoria, 2000). The productivity of the workplace particularly service organizations depends on the emotional capability of the people involved. As such, the importance of EI competencies and skills have been recognized by many professional associations and bodies working from different spheres of profession.

In recent times, business professionals work both by themselves and in teams. By this, it is essential to have Emotional Intelligence (EI) which is the capacity to identify, understand and manage one’s emotions and that of others. As working with one’s self and in teams would involve several interactions that is, intra and interpersonal relationship. Similarly, working in a team denotes a group of people coming together to accomplish defined goals and objectives. When such is established, misunderstanding is prone to happen therefore EI comes to play by helping members to deal with their emotions and that of others to ensure cohesion. Team cohesion is defined by the strength and extent of interpersonal connection existing among members of a group. It ensures the bond that causes members to participate readily and remain motivated to accomplish goals. Cohesive team embodies the “WE” attitude.

It is in lieu of this that the current study seeks to study the effect of emotional intelligence on team cohesion amongst different disciplines of students and their need for emotional intelligence. The scope of the study is limited to Dhanbad-India, two prestigious college and Institute; Patliputra Medical College and Hospital and India School of Mines, India Institute of Technology (IIT-ISM, Dhanbad). These college and institute were selected because it is one of the most prominent in the state of Jharkhand moreover, these students form part of the pool of potential entry candidates to reputable companies and industries in and outside India. With this intention, the nursing, engineering and business management student were the target population for this study.

**1.2 Background of the study**

In recent times, employers, business houses, corporations, multinational companies and the likes are all in search of expertise, skills, competencies etc. that enables employees not only to perform tasks and assignments given them but also to succeed at the workplace. To be successful one needs to be a “star performer” which hard skills alone are not sufficient. Therefore, soft skills are essential to complement hard skills. Hard skills usually encompass the technical know-how, the knowledge-based about a job, academic excellence amongst others. While soft skills encompass an individual’s habit that helps them succeed in the workplace as well as those competencies that help people to relate with one another. Emotional Intelligence (EI) has been identified as intelligence that helps people to relate well with others and themselves. Emotional intelligence can be defined as the ability to recognize and manage one’s emotions as well as that of others. The root of emotional intelligence is found in the concept of social intelligence. Thorndike (1920) defined social intelligence as, “the ability to understand and manage men and women, boys and girls to act wisely in human relations”. Beyond social intelligence, Gardner (1983) proposed the theory of multiple intelligences, which included both interpersonal and intrapersonal intelligences. Salovey and Mayer (1990) are the pioneers to coin the term Emotional Intelligence (EI). EI was proposed as a subset of social intelligence as part of Gardner’s view of personal intelligence.

The study of EI gained popularity amongst most researchers and scholars due to numerous findings revealing the positive impact of EI on employee’s performance, employer’s leadership style, and employee’s behavior amongst others. Due to these fascinating findings, in contemporary days employers seek to apply strategies to enable their Human Resources to perform better, increase productivity and profitability, and for employees to be satisfied at the workplace. For this reason, there is a growing interest in this area of research where several proponents are of the view that EI is indeed worthy of research and its application at the workplace. While it is true, some opponents of this concept argue about the concept of EI, its definition, measurement, validity amongst others.

Due to the globalization of the world as a result of the revolutionary increase of the internet which permits the sharing of big amounts of data across different geographical areas, thereby bringing people together and boosting the growth of teams. This along with economic and technological advancement has brought a series of transformations in business-houses. The essential being the transition from individual-level focus to group-based approaches (Kaur et al, 2016). Emotional intelligence also started as an individual competence and nowadays, researchers have linked this competence at a group level. Druskat and Wolff (2001) evaluated emotional intelligence and its interaction with groups. It was realized that teams can develop greater emotional intelligence, and in that process, they increase their overall performance.

From the aforementioned, it is realized that due to the globalization of the world there is a transition in business-houses to move from individual to a group level, employers tend to use teams at the workplace. Similarly, in colleges, students are put in teams to work with each other, share expertise, ideas, resources, and enjoy synergy to accomplish tasks and assignments. Now employers are in dire need of such skills and expertise. As college students form part of the pool of potential candidates’ employers recruit for their entry-level employees. College students from different disciplines have specific needs while they work with each other in teams. There have been previous studies done on the role EI plays on team cohesion. However, there is little information on the extent to which the concept of EI has been brought to light to engineering students (Skipper et al, 2012) as well as other students from different disciplines.

For this reason, the current study seeks to study the role of emotional intelligence on team cohesion amongst different disciplines of students. As previous studies have concluded that EI is worthy of research a few have investigated EI from employee’s point of view while others have targeted college students or graduates who become entry level employees. In the current study, college students from Jharkhand State precisely Dhanbad forms part of the study. India Institute of Technology (India School of Mines), Dhanbad and Patliputra Medical College and Hospital is the study area. This location is selected because both college and institute are one of the most prominent in the state. The aim of the study is to target different disciplines of students and study the effect of EI on team cohesion.

According to conventional wisdom, all professions need soft skills thus EI to make them star performers. As a matter of fact, Engineering, Nursing and Business Management students were used for the study. These students have similar demographics and each of the different disciplines have specific need of EI to apply at the workplace to make them “star performers” (Goleman, 1995). For engineers, sophisticated tasks are being carried out in teams therefore, it is essential for engineering students to get abreast with EI competencies to effectively work in teams. Nursing students on the other hand, are required to work tactfully as they deal with critical situations. Due to this, nursing students are required to possess capabilities which will help them withstand the high demands on the job. Business management students, specifically part-time executives are both students and workers and as a result they are prone to have misunderstanding amongst their fellow co-workers and colleagues at both the workplace and in school. Therefore, it is prudent for them to possess EI competencies to help curb and maintain healthy relationship with others.

Due to all these, the current study seeks to address this problem by conducting a research survey on five hundred and forty (540) college students from both IIT(ISM), Dhanbad and Patliputra Medical College and Hospital (PMCH). A scaled questionnaire is designed to collect data from the respondents which will measure the participant’s EI and team cohesion (TC). Pearson correlation, linear regression, Andrew Hayes Process, Hierarchical multiple regression, ANOVA amongst other statistical techniques are employed to analyse the data.

**1.3 Statement of the problem**

Research has proven that IQ (intelligence quotient) alone is not sufficient to make employees “star performers” rather the right mix of IQ and EQ (emotional quotient). In light of this, there is a growing interest amongst researchers and academicians in this field. While some researchers, have targeted existing employees’ EQ abilities others have targeted college students. This is mainly because college students form part of the entry-level employees in every organization. Previous research unveils that, some organizations spend lots of money in the recruitment process of graduates, only to realise later that they leave the organization and this create vacancies internally. As a result, whenever there is promotion internally, there is shortage of people and productivity is affected. Though there might be other factors that causes such attrition rate. However, to deal with the challenge of EQ of graduates, employers need to assess EQ so that they can gauge from the beginning those candidates who can stay with the organization for a longer time and can also work amicably with others. Thereby, the recruitment process should go beyond just assessing IQ, technical skills, academic excellence amongst others.

Smigla and Pastoria, (2000) opines that EI is an essential component for productivity at the workplace. As this fact is established, the importance of EI skills is also acknowledged by other professions in all spheres of life. Due to globalization, people from all walks of life come together to work, and this boost the usage of teams. Therefore, organizations tend to work in teams.

Accordingly, Indian Institute of Technology, India School of Mines IIT(ISM), Dhanbad and Paltiputra Medical College and Hospital (PMCH) are selected to study the effect of emotional intelligence (EI) on team cohesion (TC) amongst different discipline of students. As the premise is, all profession needs EI to be productive, all these disciplines understudy (engineering, nursing and management) have an exclusive need of EI in teams.

* 1. **Objectives of the study**

The Objectives of this research are as follows:

1. To examine the effect of emotional intelligence on team cohesion amongst engineering students at IIT (ISM), Dhanbad.

2.To examine the effect of emotional intelligence on team cohesion amongst nursing students at Patliputra Medical College and Hospital (PMCH).

3.To find out the role of emotional intelligence in conflict management styles amongst part-time executive students.

* 1. **Research questions**

1.What is the effect of emotional intelligence on team cohesion n amongst engineering students at IIT(ISM), Dhanbad?

2.What is effect of emotional intelligence on team cohesion amongst nursing students at Patliputra Medical College and Hospital (PMCH)?

3.What role does emotional intelligence plays in conflict management styles amongst part time executive students?

**1.6 Significance of the study**

This study is significant in diverse ways to the participants understudy as well as business houses. Other benefiting persons includes researchers, academicians, stakeholders of educational institutions etc.

First and foremost, for the participants understudy, the findings will be help them assess their EI competencies in teams. This will then prepare them to have a seamless transition from the classroom to the workplace. Whatever their EI levels might be, it can be improved or maintained. The participants understudy will be introduced to the concept of emotional intelligence. They will be exposed to this concept and this will better equip them to assess their EI levels which will subsequently help develop the right mix to be star performers at the various workplace. The participants under-study are the first-hand beneficiaries of this survey.

Secondly, for employers, they will be well informed about broadening the recruitment process and other human resource (HR) practices. Thus, considering both EQ and IQ skills of applicants. Hence, to select potential employees who are not just equipped with intellectual prowess but also vested with emotional intelligence competencies. As the assumption is that IQ will get you the job, but EQ will get you promoted. Organizations will limit the lots of money spent in recruitment process, and in the process of sustaining employees so that attrition rate will be reduced. As emotionally intelligent applicants will be targeted and such employees would stay with the organization for a much longer time.

Again, for researchers and scholars this study will add up to both empirical and secondary research conducted in the area of emotional intelligence and teams amongst students from different disciplines. The outcome will produce reliable findings and perspective for measuring the emotional intelligence of students from different disciplines.

**1.7 Scope of the study**

This study is limited to students in Jharkhand state Dhanbad-India, to be precise IIT (ISM) Dhanbad and Patliputra Medical College and Hospital. Engineering, nursing, and business management students were the target population. In all, five hundred and forty (540) students were sampled from the entire population. The mixed model of Daniel Goleman was used to assess the emotional intelligence of the students.

**1.8 Chapter scheme**

The study is divided into five chapters.

**Chapter I** is the introduction to the study. This covers the background information, problem statement, objectives, research question, significance of the study, and the scope of the study.

**Chapter II** covers a review of existing literature on emotional intelligence and teams. Specifically, it involves the introduction, the evolution of emotional intelligence, the evolution of teams, Models of emotional intelligence and its measurement, the link between emotional intelligence and teams, Team or group cohesion, personality and gender.

**Chapter III** is the study methodology. It covers the study design of study, data collection. It entails introduction, methodology, hypothesis developed for the study, method of analysis, research design, sampling technique, data collection methods, questionnaire development process, data analysis, reliability test, statistical tool and design of the present study

**Chapter IV**, covers analysis and discussions on emotional intelligence and teams.

**Chapter V** constitute the summary of findings, conclusions and recommendations from the study**.** Limitations and areas for future research, references, appendix and papers published**.**

**Introduction EI and TC**

Team work has become the driving force in modern business and as a result, effective team collaboration plays a vital part in the attainment of complicated organizational goals. However, the challenging issue lies in the socialization of team mates because their behaviour has the propensity to affect team’s effectiveness. People will only want to share ideas, learn, and associate with those who have the capacity to effectively utilize social networks (Dearborn, 2002). Besides, it is not about the numerous times of communication but the value, which is evident by information sharing (Marlow, Lacrenza, Paoletti, Burke and Salas, 2018). Daniel Goleman alluded that “the more we collaborate, the more efficient we are and the sooner we can get on with the next assignment” (Goleman, 1998). Additionally, “the art of maximizing intellectual capital lies in the influencing and orchestrating the interactions of the people involved” (Goleman, 1998). That is why in recent times, the idea of Emotional Intelligence (EI) has become crucial among teams, as recognizing and dealing with one’s emotions and that of others helps to attain effective team performance. In organizations, the significance of EI is stressed because social interactions are affected by emotional issues and every successful organization demands employees who can exhibit their technical capabilities, connect well and deal with their emotions (Cote et al., 2006; Fiori, 2009). This is required in modern business as employers rank the capability to work in a team as an essential quality they look out for in graduates (Abdullah et al., 2018).With this said, to help endow students with capabilities, colleges and universities have the duty to involve the student body in team work to make them productive in teams (Association of American colleges and universities, 2007). In view of the increasing usefulness of EI in the part of team performance, most researchers have used several models such as the Mixed Model by Daniel Goleman (1995) and Ability Model by Mayer and Salovey (1990) for measuring EI. With the application of these models, scholars have shown the importance of EI by examining its impact on team cohesiveness, precisely, among students (see Rapisarda, 2002; Prati et al., 2003; Jordan and Troth, 2004; Quoidbach and Harosenne, 2009; Moore and Mamiseishvili, 2012; Jani and Vyas, 2014; Sarkar and Ray, 2017; Black et al, 2018). Team cohesion is essential for team performance, as EI and Personal-efficacy is found to be antecedents for team cohesion amongst team mates (Black et al, 2018). This has heightened the interest of employers to recruit candidates who are highly emotionally intelligent. In studies done by Neil et al., (2016), Ud Din (2017), and Kaufmann and Wagner (2017) similarly highlighted the relevance of EI in team cohesion. However, whilst these studies have confirmed the important role played by EI on TC from different countries, there is no or little work conducted in India. Moreover, to the best of our knowledge, little is recognised about which of the competencies of the Mixed Model is more likely associated with team effectiveness.

For this reason, the study is undertaken to bridge the gap in the literature by examining the impact of EI on TC. The study further aims to examine which of the competencies of the Mixed Model is likely associated with team effectiveness. To achieve this, a survey was conducted on 110 first year engineering students of IIT(ISM)-Dhanbad in India using scaled questionnaire. Traditionally, engineers are known to work with sophisticated machines and have little interactions with others while on the job. Albeit, companies now fall on teams to carry out complex organizational goals and engineering students are required to possess both technical and emotional capabilities to make them “star performers”. Series of field and laboratory investigation also reveals that teams that perform well has leaders who are experts (Taraki et al., 2016). The uniqueness of this study is that we combine the two measures (Mixed model and Workgroup emotional intelligence profile-short version; WEIPS-S, Jordan and Lawrence, 2009) of EI. Further, studying EI in Indian context, this study extends the importance of EI to a geographical area that has not been discovered. The findings of the study will add up to the literature and support the theory of EI on TC. It will further contribute to the existing literature by extending the general understanding of EI and TC from empirical point of view which is provided from a class of a sample which has not yet been explored. Overall, it offers new ideas for managers in understanding which of the EI competencies is more associated with team’s effectiveness.

The remainder of the study commences with review of literature, followed by the variables used in the study explained, then the methodology applied, the findings and the discussion of the results, practical implications and ends with the conclusion while highlighting the limitations of the study.

**INTRODUCTION EI and IIT STUDENTS**

In recent times, many institutions educate their students on acquiring soft skills. Some business colleges, have added EI in their syllabus and it forms part of substantial research area (Raghavendra and Senthil, 2017). Emotional Intelligence (EI) is the ability to recognize and manage one’s emotions and that of others and discriminate among them to guide one’s thinking and behaviour. Nelson and Low (2003) opines that, EI is an essential skill that helps in a successful career, leadership and personal goals. If students are finding jobs in either the private or public sectors or deciding to start their own company, EI is an essential soft skill (Chamorro-Premuzic, 2010).

An important way to boost the employability of young people is by success in higher education (Jayawardena and Gregar, 2013). This is why universities, institutions and colleges pay attention to the skills of students in order to get jobs upon their graduation. Hence, when 640 college recruiters were arbitrarily chosen by the National Association of Colleges and Employers (NACE) to find out what potential employers look out for, findings unveiled that, interpersonal skills were rated as the most essential skills sought after in graduates. Followed by ethics and integrity, leadership, perseverance, and knowledge (Shivpuri and Kim, 2004). Similarly, studies related to skills sought by potential employers in graduates suggest that emotional intelligence (EI) competencies are equally important as other job-related skills like “hard skills”. Even though hard skills are essential, today’s graduate need more than that to succeed at the workplace (Liptak, 2005).

Previous studies depict that there is a positive relationship between EI and college students (Barchard, 2003; Brackett et al., 2003; Parker et al., 2004; Singh et al., 2011; and Codier and Odell, 2014). EI also appears to be a good foundation in helping graduates look for job and succeed at the workplace. This suggest that graduates who possess such skills and knowledge becomes successful employees and citizens as a whole. The importance of EI has been identified by many well-known professional institutions working in different sectors of business (Kautish, 2000). Thus, EI is an essential ingredient for a productive workplace (Smigla and Pastoria, 2000).

In light of this, the current study is conducted to assess the emotional intelligence (EI) levels of IIT students at IIT (ISM)-Dhanbad, India. As IIT’s are the top most Engineering Institutes in India. These Institutes educate and produce most of the world’s best tech savvies. Despite their intellectual prowess, success at the workplace requires a combination of intelligence quotient (IQ) and emotional quotient (EQ). The study assesses the EI levels of the participant’s understudy and compares the EI levels of the participants using demographic variables.

1. **Introduction EI and NURSING STUDENTS**

The term Emotional intelligence (EI) has been profoundly researched as well as been criticized. There are two main happenings that have caused for the research of the concept EI (Smith et al., 2009). First is the publication of the term EI in the academic journal of Imagination, Cognition and Personality by Salovey and Mayer (1990) and second is also the publication of the bestseller EI book by Daniel Goleman (Furnham, 2006). In the circles of academia, education, psychology and business research, EI has gained attention intensely (Smith et al., 2009). EI entails intra and inter personal intelligence that allows individuals to easily coordinate and interact with others (Gardner, 1983). Intra and inter personal intelligence helps an individual to recognise and control their emotional states and that of others to make good decisions, solve problems and regulate behaviours. Also, it is the competencies of EI that help individuals to understand theirs and other emotional make-up. For instance, in the nursing domain, EI in recent times has received attention as well (McQueen, 2004; Gerits, Derksen, Verbruggen, & Katzko, 2005; Kooker, Shoultz, & Codier, 2007; Mantes-Berges & Augusto, 2007; Landa, Lopez-Zafra, Martos & Guilar- Luzon, in press). The importance of EI has gained attention as the nature of the job requires skills that facilitate interpersonal relationships. These EI competencies will help nurses to interact with their colleagues, other medical staffs, patients and their relatives while on the job. Due to the severity of conditions and emergencies at the hospital settings, nurses are obliged to act tactfully in order to save lives and administer help to their patients. By so doing, it is essential for them to work in teams, in order to share information, ideas and expertise which will aid in curbing the severity of the eventualities they encounter while on the job.

Furthermore, the job nature of nursing proposes that nurses need to be emotionally intelligent. This assertion is based on a claim that nurses administer help through human interaction, therefore nurses contribute to these interactions formed and the emotions therein. A key point of this premise is that a basic skill required in nursing is apprehending and dealing with emotions (Freshwater, 2004; Freshwater and Stickley, 2004; McQueen, 2004). In the study of Smith et al. (2009), it was affirmed that recognizing and understanding emotion is an essential skill of the nursing practice since EI is important to practice. This notion is based on the hypothesis that perceiving, understanding and conveying emotion is essential to a profession that demands compassion in relationship (Kerfoot, 1996; Bellack, 1999; Bellack et al., 2001; Wasyiko and Stickley, 2003; Freshwater and Stickley, 2004; McQueen, 2004; Reeves, 2005; Chabeli, 2006; Gooch, 2006; Strickland, 2010). Again, emotions are perceived as sincere, true and sympathetic relationship as a result nursing practice demands the understanding of emotion as a necessity (Bellack, 1999; Freshwater, 2004; McQueen, 2004).

Also, the nursing performance requires emotional skills. These skills are manifested in emotional labour of nursing (Codier et al., 2010). Emotional labour can be defined as, “the induction or suppression of feeling to sustain the outer appearance that results in others feelings cared for in a safe place” (Hocshchild, 1983). That is, nurses are required to possess emotional skills that will aid them in suppressing their emotions to make them act professionally while on the job. Conventionally, as part of nurses training program, nurses were motivated to suppress their emotions and act professionally while at work. Nevertheless, recently there is a shift from suppression and detachment to attachment and valuing emotions (Williams, 2000). This is because in recent times, showing emotions while administering help to patients is important as nurses can empathise and know exactly how the patients feel. As shown in the studies of Banja, 2006; Hirsch, 2007; Weiner & Auster, 2008; Decety & Fotopoulou, 2014; and Beauvais et al., 2017. The role of EI comes into play, as nurses can show their emotions and yet manage those emotions which is required for successful interactions with the patients. This can also help in understanding the emotions of the patients and there is a likelihood to influence their feelings as well. Therefore, emotions are supposed to be shown and valued giving importance to the awareness of EI. As a result, the understanding of EI has become an important capability for nurses as they can express their emotions and yet effectively manage them.

Importantly, in the nursing domain, all three models of EI (Ability, Mixed and Trait) has been used to measure and evaluate the EI levels of participants under study. All the models have features such as self-awareness, self-management, social awareness and social relationship management (Codier et al., 2010). However, studies have shown that the ability based model has been mainly used (Codier et al., 2010).

Undoubtedly, initial research unveils that many abilities related to EI competencies prepare nursing students for successful training in the nursing practice (Rochester et al., 2005). Emotional abilities required by graduate nurses are rooted in the study of nursing theories which entails concepts of caring, empathy, understanding and dealing with conflict in human relationships in practice (Cox, 2002; Faugier and Kloolnough, 2002; Hambleton, 2006). To effectively carry out the nursing role, nursing students require an attentive and clear understanding of the role of emotions in human interaction in practice (Brewer and Cadman, 2000; Cadman and Brewer, 2001; Mckinnon, 2005).

Furthermore, nurses have to pay attention to their own EI abilities, as the understanding of emotions experienced by individuals affects the work of a team. According to Semple and Cable (2003), to be an effective team, understanding, trust and co-operation is needed since the system of health care professionals involved in hospitals are complex. Druskat and Wolff (2001) recount the advantages of EI in a team scenario, not only amongst nurses in teams but also amongst other health care professionals. The essence of teamwork has been noticed by the UK Nursing Midwifery Council (2002) in its Code of Professional Conduct.

From the above, it can be realised that the analysis of previous studies suggest that the modern demands of nursing practice require the skills of EI in order to cater for the needs of the patients and to have a co-operative multidisciplinary negotiation (McQueen, 2004). Although a number of studies have been conducted by examining EI on nursing students, both having success in academics and profession (Dos Santos 1999, Rochester et al. 2005, Shanta 2007), what is lacking in the literature is research on nursing teams and EI in nursing students (Kahraman and Hicdurmaz, 2015). Therefore, this study is conducted by demonstrating the impact of emotional intelligence (EI) on team cohesion (TC) amongst nursing students. The study further aims to examine whether demographic factors (gender, age and family income) moderate the effect of EI on TC. To accomplish this objective, a survey was conducted on 100 nursing students of Patliputra Medical College and Hospital (PMCH) Dhanbad, India. Using a scaled questionnaire data was solicited from the nursing students.

As nursing students require EI abilities that enable them to handle the daily demands of the work pressure, teaching EI skills to nursing students will lessen the burden of student nurse transition into practice. This will help improve their working skills and reduce retention rates. Therefore, this study focuses on nursing students’ EI abilities and their ability to work in a team as they can either maintain or improve their EI competencies. The current study hypothesizes that:

H1: EI has a significant impact on TC

H2: The sub competencies of EI has a significant impact on TC

H3: There is a relationship between EI and TC

H4: Gender moderates the effect of EI on TC

H5: Family Income moderates the effect of EI on TC

H6: Age moderates the effect of EI on TC