

Deanship of Graduate Studies

Al- Quds University



**The influence of emotional intelligence on
interprofessional teamwork, communication, and
leadership among nursing students.**

M. Sc. Thesis

Reem Raja Yacoub Hazboun

Jerusalem – Palestine

1446/2025

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leadership among nursing students.**

Prepared by:

Reem Raja Yacoub Hazboun

B.Sc. Nursing –Al-Quds University- Palestine

Supervisor: Dr. Farid Ghrayeb

**A thesis Submitted in Partial Fulfillment of the
Requirements for the degree of Master of Management
in Nursing, Deanship of Graduate Studies- Al-Quads
University**

1446/2025

Deanship of Graduate Studies
Al-Quds University
Nursing Management



Thesis Approval

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Prepared by: Reem Raja Yacoub Hazboun

Registration No: 22212575

Supervisor: Dr. Farid Ghrayeb

Master thesis submitted and accepted, Date: 8.1.2025

The names and signatures of the examining committee numbers are as follows:

1. Head of Committee: Dr. Farid Ghrayeb

Signature:

2. Internal examiner. Dr. Kefah Zaben

Signature:

3. External examiner: Dr Ahmad Albatran

Signature:

Jerusalem-Palestine

1446/2025

Dedication.

I dedicate this thesis to my beloved family, whose unwavering support and encouragement have been my greatest strength throughout this journey. To my husband, for his boundless patience and understanding, and to my precious twins, who are my constant source of inspiration and joy. I am deeply grateful to my supervisor, Dr. Farid Ghrayeb, for his invaluable guidance, insightful advice, and steadfast belief in my potential. Your contributions have been instrumental in shaping this work and my academic growth. This accomplishment is a testament to all of you—thank you for walking this path with me.

Declaration

I certify that this thesis which is submitted to the Deanship of Graduate Studies to get the degree of master in on filed Nursing Management, this is my own research and my own work and it doesn't submit to any other universities or any institutions.

Signed: *Reem hazboun*

Reem Hazboun

Date: 8.1.2024

Acknowledgments

It is with great pleasure and gratitude that I take this opportunity to thank those who made the completion of this thesis possible.

First and foremost, I extend my heartfelt appreciation to Dr. Dr. Farid Ghayeb, whose unwavering support, insightful guidance, and constructive feedback were invaluable throughout my thesis journey. Your encouragement and dedication have been instrumental in shaping this work, and I am deeply grateful for the time and effort you devoted to my academic growth.

Special thanks to my thesis committee members for their invaluable insights, encouragement, and expert advice, which greatly enriched the quality of this work. Your support and understanding played a significant role in the successful completion of this research.

Thank you all for your contributions, guidance, and belief in my abilities.

Abstract

Background: The significance of emotional intelligence (EI) in healthcare settings has garnered increasing attention, particularly regarding its impact on interprofessional teamwork, communication, and leadership among nursing students. Emotional intelligence is defined as the ability to recognize, understand, and manage emotions in oneself and others, which is essential for fostering effective collaboration and enhancing patient care outcomes. Despite the recognized importance of emotional intelligence E there remains a lack of empirical research specifically examining its influence within the context of nursing education and interprofessional dynamics.

Study Aim: This research aims to investigate the relationships between emotional intelligence and key competencies in interprofessional teamwork, communication, and leadership among nursing students at Palestinian Universities, it seeks to identify how emotional intelligence contributes to improved collaborative practices and effective communication within healthcare teams.

Methods: A cross-sectional study was conducted involving nursing students from 3 Palestinian Universities, Data were collected through surveys designed to measure self-awareness, self-management, relationship management, and their effects on teamwork and communication and leadership dynamics.

Results: Preliminary findings reveal that higher emotional intelligence correlates with improved teamwork and communication. The Interprofessional Teamwork (IPT) mean score was 4.62 (± 0.3), and Interprofessional Communication (IPC) mean score was 4.37 (± 0.4). Self-Management (SM) and Social Awareness (SOA) explained 45% of the variance in Relationship Management (RM) ($R^2 = 0.454$, $p < .001$). Female students scored higher in SM (4.11, $p < .001$) and SOA (4.24, $p = .003$) than males. Interprofessional Leadership (IPL) scored 4.45 (± 0.3), indicating areas for targeted EI training.

Conclusions: The study underscores the critical role of emotional intelligence in shaping interprofessional relationships within healthcare education. It is recommended that future educational programs incorporate emotional intelligence training to foster better teamwork, enhance communication skills, and develop effective leadership capabilities among nursing students. Such initiatives are essential for cultivating a supportive healthcare environment that prioritizes patient-centered care. **Key words: Emotional intelligence, Interprofessional teamwork, Communication, Leadership.**

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Table of Abbreviations

Abbreviation	Full Form
EI	Emotional Intelligence
IPT	Interprofessional Teamwork
IPC	Interprofessional Communication
IPL	Interprofessional Leadership
SA	Self-Awareness
SM	Self-Management
SOA	Social Awareness
RM	Relationship Management
ESCI	Emotional and Social Competency Inventory
IPEC	Interprofessional Education Collaborative
IPHT	Interprofessional Healthcare Team
IPTCI	Interprofessional Teamwork Competency Inventory
IPCCI	Interprofessional Communication Competency Inventory
IPLCI	Interprofessional Leadership Competency Inventory

Chapter One

Introduction

Emotional intelligence (EI) defined as the ability to successfully recognize, understand, express, and regulate emotions (Luna, Vilar, 2021). According to Mayer and Salovey (1997) “Emotional intelligence (EI) involves the ability to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought and to reflectively regulate emotions to promote emotional and intellectual growth”.

Emotional intelligence (EI) is a relatively new concept in the health field. The nursing literature has focused primarily on the implications of emotional intelligence for the workforce, especially about issues of staff retention and effective management of the work environment. High EI levels are associated with better conflict resolution, enhanced teamwork, and the ability to create a positive work environment that supports patient care outcomes. Additionally, EI training is shown to improve nurses' overall well-being and reduce burnout. (Al-Ruzzieh & Ayaad, 2021)

Emotional intelligence is crucial in determining the dynamics of interprofessional teamwork, communication, and leadership in a variety of work settings. Emotional intelligence has a significant impact on these areas, impacting teamwork performance, interpersonal relationships, and the capacity to motivate and inspire groups of people toward shared objectives. It is essential to recognize the role that emotional intelligence plays in these situations to create a harmonious and productive work atmosphere. (mull, 2023)

Research in this field investigate the relationship between emotional intelligence and interprofessional relationships, emphasizing how it is related to better teamwork, more effective communication, and leadership. Organizations can address emotional factors that may lead to conflicts, misunderstandings, and inefficiencies by analyzing the gap in emotional intelligence competencies among interprofessional teams and researching methods to improve emotional intelligence in individuals. (Cole et al., 2016)

Furthermore, interprofessional (IP) healthcare teams frequently are organized in a hierarchy of professions that may inhibit collegiality and collaboration, exacerbating communication challenges (Almost et al., 2016)

According to a study by the Center for Creative Leadership, 75% of careers derail due to reasons related to emotional intelligence, such as handling interpersonal problems or team leadership during conflicts.

This research looked at how emotional intelligence impacts leadership, communication, and interprofessional teamwork. We evaluated how students can enhance their emotional skills to effectively handle complex team dynamics. This study aids in building a productive and encouraging work atmosphere that supports the accomplishment of common goals.

1.1 Background

1.2

Peter Salovey and John D. Mayer (1990) describing it as "coined the term Emotional Intelligence as a form of social intelligence that involves the ability to monitor one's own and other's feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and action"

The individuals with high emotional intelligence (EI) had specific abilities linked to the evaluation and management of emotions, which allowed them to regulate their own and other people's emotions to create a range of adaptive outcomes.. (Salovey & Mayer, 1990). Research shows that individuals with high level of emotional intelligence are more likely to remain composed under pressure, handle challenges respectfully, and react empathetically to coworkers (Emotional Intelligence in Leadership: Why It's Important, 2019). The three factors that lead to successful management are charismatic leadership, self-efficacy, and emotional intelligence. Employee performance is strongly impacted by communication and teamwork, while staff productivity is greatly impacted by emotional intelligence. (Solanki & Ahallawat, 2023).

In many different healthcare settings, interprofessional teamwork, interprofessional communication, and interprofessional leadership all heavily depend on emotional intelligence. Based on study, developing one's emotional intelligence and communication abilities is crucial for developing professionalism, earning patients' trust, and optimizing patient care. Furthermore, emotional intelligence supports the growth of critical skills including professionalism and the ability to manage conflict effectively. It has been demonstrated that emotional intelligence and communication-focused training programs raise awareness of effective communication techniques, improve comfort levels in collaborating with a variety of professionals, and improve preparedness for leadership roles in interprofessional teams. (Shrivastava, Martinez& etc, 2022).

the literature consistently supports demonstrates how important emotional intelligence is to the performance of interprofessional teams and leadership. Enhancing individual and team performance, emotional intelligence (EI) additionally contributes to a positive and productive work environment by building a climate of trust, cooperation, and effective conflict resolution. (Clarke, 2010).

Developing emotional intelligence in managers and business owners improves communication, promotes the best possible work environment, and is essential to inspiring staff members and achieving organizational objectives. (Martina, Denisa, & etc , 2015).

In a healthcare environment, it's extremely important for different professionals to work with each other. In order to provide effective patient-centered care, all healthcare professionals must work in unison. This requires a healthy level of communication and collaboration among the team members. However, healthcare professionals belonging to different

academic disciplines often fail to understand and appreciate the viewpoints of their colleagues. If left unaddressed, these emotional issues can eventually lead to a toxic work environment. In such a scenario, the application of EI can help those professionals to release their emotional distress. By helping people recognize their feelings, understanding the cause of the feelings, and finding solutions to emotional challenges, EI can bring new insight to a healthier and more supportive work environment. (Picón & Martín, 2021).

With the growing emphasis on the importance of emotional intelligence and the increasing interest in its influence in the healthcare sector, this study is timely and relevant. Emotional intelligence for decades has been studied from different points of view. Daniel Goleman, a psychologist, was one of the first people to document a strong relationship between emotional intelligence and overall success in life (Goleman, 2005). He defined emotional intelligence as the ability to understand our feelings and those of others, for motivating ourselves, and inspiring ourselves, as well as for effectively controlling our emotions in both our personal and interpersonal connections. In line with social psychologists, he proposed a model that consists of the four important elements of emotional intelligence: self-awareness, self-management, social awareness, and relationship management. There is some evidence emerging about the potential benefit of a high level of emotional intelligence in terms of patient care.

1.2 Problem statement

The lack of empirical research on how emotional intelligence influences interprofessional dynamics in hospital settings hinders the development of targeted strategies to enhance leadership, teamwork, and communication among medical professionals.

The intense emotions, high-stress levels, and interdisciplinary interactions in healthcare settings underscore the urgency of investigating the impact of emotional intelligence on interprofessional dynamics.

Closing this knowledge gap can help healthcare settings create a culture of excellence and well-being, improve patient outcomes, and encourage successful teamwork.

1.3 Significance of the study:

- Emotional intelligence is increasingly recognized as vital for individual and team performance in the workplace, especially in healthcare settings.
- Understanding the role of emotional intelligence in healthcare can lead to improved collaboration, patient outcomes, and the well-being of healthcare professionals.
- Bridge the gap in understanding the connection between emotional intelligence and interprofessional dynamics in healthcare setting.
- Provide insights into how EI influences interprofessional teamwork, communication, and leadership, thus filling a gap in the literature regarding this particular healthcare environment

1.4 Purpose of the study

The purpose of this study is to investigate the relationships among emotional intelligence (EI) and interprofessional (IP) competency domains to enhance IP team dynamics and communication among nursing students.

1.5 Objectives

- To determine the effect of self-awareness (SA), self-management (SM), and social awareness (SOA) on relationship management.
- To identify the effect of relationship management (RM) on interprofessional teamwork (IPT) and interprofessional communication (IPC).
- To examine the RM effect on interprofessional leadership (IPL).
- To compare the ESCI clusters and Interprofessional (IP) Variables among participants by demographic variables.

1.6 Research Questions

The research questions of this study are designed to address the relationship between emotional intelligence and key elements of interprofessional teamwork, communication, and leadership. Initially, the research seeks to investigate the presence of differences in the levels of emotional intelligence in interprofessional healthcare teams:

- Does self-awareness (SA), self-management (SM), and social awareness (SOA) have a direct effect on relationship management?
- Does relationship management (RM) have a direct effect on interprofessional teamwork (IPT) and interprofessional teamwork communication (IPC)?
- Does RM have a direct effect on interprofessional leadership (IPL)?
- Is there a significant difference in the ESCI clusters and Interprofessional (IP) Variables among by demographic variables?

1.7 Research Hypothesis

- Self-awareness (SA), self-management (SM), and social awareness (SOA) have no direct effect on relationship management (RM).
- Relationship management (RM) have no direct effect on interprofessional teamwork (IPT) and interprofessional teamwork communication (IPC).
- RM have no direct effect on interprofessional leadership (IPL).
- There are no significant differences in the ESCI clusters and Interprofessional (IP) Variables among the demographic variables.

1.8 Variables of the study

The independent variable was the emotional intelligence, while the dependent variables were interprofessional teamwork, communication, and leadership competencies.

Chapter Two

literature review

Literature Review

3. 1 Introduction

Despite the extensive application of emotional intelligence (EI) in business, it is surprising that EI has not been more widely explored in healthcare research. Behavioral skills are vital for interpersonal relationships, and healthcare, as a science, is practiced within a complex web of these relationships. EI, interprofessional teamwork (IPT), interprofessional communication (IPC), and interprofessional leadership (IPL) all significantly influence the effectiveness of these relationships, which, in turn, impact the safety and quality of care (Roth, Eldin, Padmanabhan, & Friedman, 2019).

2.2 Emotional Intelligence

• Definition

The ability-based model views emotions as useful sources of information that help people to make sense of and navigate the social environment. EI is seen as a standard intelligence, different from general intelligence, and it involves the ability to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought. Meyer and Salovey provided a blueprint in the first article for their operational or ability model, defining emotional intelligence as "the subset of social intelligence that involves the ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Meyer and Salovey, 1990). Since then, they have further refined their model and developed a measure of emotional intelligence called the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). This model identifies four types of abilities; these include perceiving emotions, using emotions to assist thoughts, understanding emotions, and managing emotions. Although the MSCEIT is seen as a measure of this form of EI, there is still some debate about whether emotions can be improved in the manner other abilities can be. (Mayer, Caruso, et al, 2003)

The first published scientific article on this topic was in 1990 by Peter Salovey and John D. Mayer. However, the concept of emotional intelligence had been introduced as early as the 1920s Goleman in his release of 'Working with Emotional Intelligence' also highlighted the

importance of emotional intelligence when dealing with the environment, claiming it to be a key determinant for success and has also been cited as a contributor to linking EI to health. (Sfetcu, 2020)

Previous work done in the field of emotional intelligence has generated some quite thought-provoking, although often conflicting, evidence. In their 2002 analysis, Van Rooy and Viswesvaran conclude that the overall relationship between EI and job performance is moderate to strong, but goes on to say that general mental ability is still the best predictor of job performance. While this is a somewhat damning statement, it is one of the very few that can be found in the literature.

2.2.1 Emotional Intelligence: Personal and Social Competencies

After decades of research into non-cognitive intelligence, Salovey and Mayer coined the term "emotional intelligence" in 1990 to describe individuals who possess self- and social awareness and are able to use this awareness to guide their decision-making (Salovey & Mayer, 1990). Boyatzis expanded on this concept by categorizing emotional intelligence (EI) into two dimensions: 1) intrinsic personal competencies and 2) outwardly expressed social competencies (2009). This holistic perspective views EI as a "performance trait or ability," as well as a self-schema, self-image, and a set of behaviors (i.e., competencies). The fundamental EI competencies are divided into personal competencies, which include 1) self-awareness (the ability to identify emotions) and 2) self-management (the ability to use emotions for reasoning and problem-solving), and social competencies, which consist of 3) social awareness (the ability to understand emotions) and 4) relationship management (the ability to manage emotions in oneself and others) (Boyatzis, 2018; Codier & Codier, 2017; Goleman, 2005).

Typically, personal EI competencies are developed before social EI competencies (Goleman, 2005). Once personal EI competencies are mastered, social EI competencies are more easily expressed, which could theoretically enhance the effectiveness of interprofessional (IP) teams. Leaders who are both personally and socially competent in EI are able to communicate a shared vision for the team while understanding the attitudes and emotions of others (Caruso & Salovey, 2004).

2.2.2 EI behavior: Trait or Skill

A philosophical debate has arisen among experts about whether emotional intelligence (EI) is an ability (a skill or proficiency) or a trait (an inherent quality). Many, however, contend that EI encompasses both aspects (O'Connor, Hill, Kaya, & Martin, 2019). Boyatzis provides a more comprehensive perspective, describing EI as a complex personality model consisting of characteristics that interact on various levels, leading to observable social behaviors (Boyatzis, 2018). For the purposes of this study, EI is viewed as a state—an inherent ability that interacts across conscious, subconscious, and unconscious personality levels and is reflected in behavior patterns that manifest as EI competencies.

2.2.3 EI in Healthcare Provider Education

IP teams' cooperation and communication traits are influenced by EI social competences, especially RM (Almost et al., 2016). Healthy IP teams and interpersonal connections are anticipated to be improved by the EI competences (Codier & Codier, 2017). Despite being Nursing school teachers are starting to show interest in helping doctors develop their emotional intelligence (EI) skills (Bonazza, Cabell, Cheah, & Taylor, 2021; Cherry et al., 2014; Roth et al., 2019; Tiffin & Paton, 2020). Research on developing EI education has

mostly been used in the context of organizational leadership in business (Foster & Roche, 2014; Maqbool et al., 2017; Terziyan & Kaikova, 2015).

Nursing schools are creating programs to improve physician residents' communication and teamwork abilities as part of this focus, and they are also researching the results (Bonazza et al., 2021; Cherry et al., 2014; Johnson & Stern, 2013; Mintle, Greer, & Russo, 2019; Mintz & Stoller, 2014; Saxena, Desanghere, Stobart, & Walker,). Throgmorton, Mitchell, Morely, & Snyder, 2016; Khosa, Khan, Bhulani, Miao, Butler, Nasir, & Raggi, 2017; Gregory, Robbins, Schwaitzberg, & Harmon, 2017; Nowacki, Barss, Spencer, Christensen, Fralicx, & Stoller, 2017; and others are investigating social and personal emotional intelligence (EI) in relation to physician professional and administrative leadership roles.

The value of emotional intelligence in leaders has also been mentioned by nursing leaders. According to Heckemann, Schols, and Halfens (2015), "a reflective framework" to improve social and personal emotional intelligence in nursing leadership. In order to strengthen leadership and communication skills, proponents of safe nursing practice have advocated for the provision of formal programs to develop social and personal emotional intelligence (Carragher & Gormley, 2016; Codier & Codier, 2017; Parnell & St. Onge, 2015). Although there is interest in helping healthcare leaders develop their emotional intelligence (EI), no research has been done to far that examines the connections between the IP skills of healthcare team members and leaders and their personal and social EI.

Disparities in education and training among healthcare providers might cause communication problems and conflicting approaches to treatment (Foronda et al., 2016). Through IPC, there are mechanisms made to make safety easier. To reduce communication problems, Team STEPPS®, for instance, has a communication tool called SBAR (Situation, Background, Assessment, Response) (Agency for Healthcare Research and Quality ,2023.). But the quality of these systems depends on how dedicated their end users are to using them consistently. Additionally, some safety plans fail to address certain aspects of communication. Disparities in education and training among healthcare providers might cause communication problems and conflicting approaches to treatment (Foronda et al., 2016). Through IPC, there are mechanisms made to make safety easier. To reduce communication problems.

2.2.4 Communication and Teamwork Competency: Impact on Practice

Many professional specialties are involved in the increasingly complicated delivery of healthcare, but managing the work is frequently limited to the technical parts of tasks rather than care coordination (Rosen et al., 2018; Gordon, Baker, Catchpole, Darbyshire, & Schocken, 2015). Optimal IPT and IPC are essential for care coordination and integration. Neither these elements nor the influence of social and cognitive nontechnical abilities on teamwork have been adequately described competence or performance. A collection of social (communication and teamwork) and cognitive (analytical and personal behavior) abilities that promote high-quality, safe, effective, and efficient inter-professional care within the intricate healthcare system is what Gordon et al. (2015) define as these nontechnical skills. It is impossible to separate each team member's interpersonal interactions and behaviors from effective communication and teamwork (Lee & Doran, 2017). Research on the connections between communication and teamwork has shown that education can improve these abilities (Foronda et al., 2016). The empirical analysis of the behaviors underlying IP social and cognitive abilities of communication and cooperation is a necessary first step in creating curriculum adjuncts that are specifically.

2.2.5 Competency in Emotional Intelligence

According to Mayer, Salovey, Caruso, and Sitarenios (2003), emotional intelligence is the capacity to recognize, comprehend, control, and utilize emotions in oneself and others. It has also been linked to the capacity to track, assess, and apply more efficient communication techniques in healthcare teams (Cherry, Fletcher, & O'Sullivan, 2014; Rosenstein & Stark, 2015). Personal and social competences are further subdivided into the four EI domains. While the social EI talents are more visible and hence simpler to detect, the personal EI competencies cover interior processes. Self-awareness (SA) and self-management (SM) are the domains of personal emotional intelligence (EI) competency. Social awareness (SOA) and relationship management (RM) (Codier & Codier, 2017; Boyatzis, Gaskin, & Wei, 2015) are examples of social emotional intelligence (EI) competencies.

Emotional self-awareness, which is the specific competency for SA, is the ability to identify one's own feelings and how those feelings affect other people. Emotional self-control, flexibility, accomplishment orientation, and optimistic outlook competencies make up the SM domain. The ability to restrain erratic feelings and/or urges is known as emotional self-control. The degree of flexibility one demonstrates when handling change is known as adaptability. Aiming for excellence or personal growth is known as achievement orientation. More generally, optimism regarding current and future circumstances is referred to as a positive perspective (Boyatzis, 2018). To properly evaluate oneself and identify one's own strengths and shortcomings, a person needs certain personal emotional intelligence competencies.

The manifestation of social competences is predicated on an understanding of these emotional competencies, which are essential for controlling emotions (Boyatzis & Goleman, 2017). The SOA domain includes organizational awareness skills and empathy, which is the understanding of other people's thoughts, feelings, and worries. Understanding the viewpoint and experience of others is fundamental to empathy, which allows a provider to react in a way that supports the objectives of IP interactions. Understanding the composition, purpose, and objectives of the team or organization is known as organizational awareness. These social skills are crucial for taking into account not just one's own demands but also those of others or a community. It is anticipated that the EI domains of SA, SM, and SOA will support, encourage, and facilitate strong RM.

Sensing group power dynamics and emotional undercurrents are part of the RM realm. The foundation of RM is the ability to motivate others to perform at their highest level. Individual skills in persuasion, dispute resolution, teamwork, coaching/mentoring, and inspirational leadership. Understanding another person's needs for development and using coaching/mentoring techniques to improve others' performance are examples of coach/mentor behaviors. While influence refers to the capacity to influence a course of action that maximizes team performance, inspiring leadership is defined as the capacity to inspire and direct others' behaviors toward a shared objective. Competencies in teamwork and conflict management are closely related. While the latter works within team dynamics to maximize shared outcomes, the former uses good negotiation to settle disputes (Boyatzis, 2018).

2.3 Competency in Interprofessional Practice and Education

In (2009), the creation of the Interprofessional Education Collaborative (IPEC) was seen. By combining national and international IP competence literature, IPEC established the

basic skills of IPP in 2016 with the goal of "creating a coordinated effort across the health professions" (IPEC, 2016). 1) IPP principles and ethics, 2) roles and duties for collaborative IPP, including leadership, 3) Interprofessional Healthcare Team (IPHT) work and team-based IPP, and 4) IPP communication were the four basic skill categories that IPEC established (IPEC, 2016). performance. Competencies in teamwork and conflict management are closely related. While the latter works within team dynamics to maximize shared outcomes, the former uses good negotiation to settle disputes (Boyatzis, 2018). IP leadership (IPL), IP communication (IPC), and IP teamwork (IPT) are the three main areas of focus for these competencies. According to IPEC (2016), these competences outline how each IPHT Model should apply relationship-building ideals and team dynamics concepts to efficiently design interventions for the best patient outcomes, both from the standpoint of their specialization and the IPHT as a whole. In order to support health promotion and maintenance as well as illness prevention and treatment, for instance, the IPC competency focuses on IPHTM in a deliberate and responsive manner (IPEC, 2016). Medical errors may be decreased by a coordinated and efficient IPC in a complicated, disjointed system, particularly during frequent, required patient handoffs (Starmer et al., 2014; Fox et al., 2021). In addition to disease prevention and treatment, clear communication is important (IPEC, 2016). A cooperative team setting will encourage adherence to a patient management strategy that prioritizes patient safety and maximizes science-based results (Mahmood, Mohammed, & Gilbert, 2021; Amini, Amini, Nabiee, & Delavari, 2019; Roth, Eldin, Padmanabhan, & Friedman, 2019). The MEDICC model suggests relationships that combine IP and EI skills for the IPHT in order to achieve this objective.

2.4 Importance of Emotional Intelligence in Workplace Dynamics and

Organizational Effectiveness

The dynamics of the workplace and the efficiency of organizations are significantly influenced by emotional intelligence (EI). According to a literature review research by Khalili in 2012 shows that emotional intelligence (EI) plays a critical role in job performance, leadership, and teamwork in the workplace. High emotional intelligence (EI) workers are better able to control their emotions and react to those of others, which enhances teamwork, communication, and productivity. (Khalili, 2012).

Furthermore, San Martín and Delgado's (2018) study revealed a significant positive relationship between Emotional Intelligence (EI) and beneficial team dynamics, highlighting the critical role that EI plays in promoting a cooperative work atmosphere. Leaders with high emotional intelligence (EI) are exceptionally skilled at creating a culture that values open communication and trust. Emotional intelligence is linked to less stress at work as well. People are less likely to feel overwhelmed or stressed when they can control their own emotions as well as successfully respond to those of others. Every employee may benefit from a more positive atmosphere and better mental health as a result of this.

2.5 Interprofessional competencies

2.5.1 Interprofessional Teamwork

In a study by Cox (2022), the impact of emotional intelligence on interprofessional teamwork, communication, and leadership was explored, highlighting the importance of emotional intelligence in enhancing team dynamics and communication within healthcare settings. The study emphasized the need to include emotional intelligence in interprofessional team education and safety programs to improve the work environment and patient care outcomes (Aulisio, M. C., et al, 2019).

A study focused on the effectiveness of a case-based interprofessional workshop for undergraduate students in industrial engineering and nursing. It aimed to examine the association between emotional intelligence and teamwork skills, hypothesizing an increase in emotional intelligence, empathy, teamwork skills, and positive attitudes toward interprofessional education following the workshop. The study supported the role of emotional intelligence in enhancing teamwork skills and emphasized the importance of educating trainees to understand and communicate their professional identity effectively (Lee, Bristow, & Wong, 2018). Research has shown that emotional intelligence positively influences interprofessional teamwork by enhancing communication, empathy, and conflict resolution skills among healthcare managers.

2.5.2 Interprofessional Communication

Communication and emotional intelligence (EI) are closely related, with EI being a crucial factor in effective communication. Emotional intelligence (EI) places a strong emphasis on the capacity to regulate one's own emotions, accept the emotions, thoughts, and opinions of others, and manage social interactions and behavior. Effective communication is a fundamental skill for social life and is considered the basis of human development, achievement, and individual harm. Emotional intelligence can help managers foster effective communication among healthcare professionals, reduce misunderstandings, and promote a positive work environment. By developing emotional intelligence skills, managers can improve teamwork, enhance patient care, and contribute to the overall success of the healthcare organization (Raeissi, Zandian, et al 2019).

Communication is Interpersonal interactions, which depend on "soft skills" that are rarely examined in healthcare settings, are linked to communication. (Foronda, MacWilliams, & McArthur, 2016).

Communication breakdowns are the primary cause of adverse events, and as approximately half of these events are preventable, solutions that improve team communication may lead to a decrease in such events (Leonard, 2004). Effective team communication provides mechanisms for resolving conflicts and managing uncertainty through dialogue. It allows members to establish a shared understanding of the patient and their situation, and it allows for a framework to be set for dynamic activity in complex, time-pressured, and often high-stakes work environments (Baker, Day & Salas, 2006).

2.5.3 Interprofessional Leadership

Study has shown that emotionally intelligent leaders are better equipped to inspire emotions, passion, and motivation, which helps to achieve goals that might otherwise not have been conquered. Emotionally intelligent nurses with administrative positions can significantly contribute to effective leadership, which in turn leads to increased job satisfaction,

organizational commitment, and wellbeing in the workplace for both leaders and followers (Goleman, 2000).

Research has shown that emotionally intelligent leaders can inspire emotions, passion, and motivation, which helps to achieve goals that might otherwise not have been conquered (Bikmoradi, Abdi, Hamidi, et al, 2018). Study has shown that emotionally intelligent leaders are better equipped to inspire emotions, passion, and motivation, which helps to achieve goals that might otherwise not have been conquered. Emotionally intelligent nurses with administrative positions can significantly contribute to effective leadership, which in turn leads to increased job satisfaction, organizational commitment, and wellbeing in the workplace for both leaders and followers (Goleman, 2000)

2.6 Theoretical Frameworks

This model serves as the theoretical foundation for connecting EI competencies with IP competencies to enhance teamwork, communication, and leadership within healthcare teams.

It emphasizes the importance of emotional intelligence in fostering effective communication, understanding team dynamics, and promoting leadership skills among healthcare professionals.

The personal emotional intelligence (EI) competencies, such as self-awareness (SA), which involves recognizing emotions, and self-management (SM), which refers to using emotions for reasoning and problem-solving, relate to internal processes. On the other hand, the social EI competencies, including social awareness (SOA), which is the ability to understand emotions, and relationship management (RM), which involves managing emotions in oneself and others, are externally visible and easier to observe (Codier & Codier, 2017; Goleman, 2005).

The IPEC framework has been widely utilized by healthcare educators and interprofessional (IP) education development teams, these educational competencies resulted from the collaborative efforts of six founding educational organizations representing various health disciplines, including dentistry, nursing, medicine, osteopathic medicine, pharmacy, and public health. The mission of IPEC was to create core competencies for interprofessional collaborative practice, drawing from existing discipline-specific competencies. The four foundational domains of interprofessional (IP) collaboration competency are: 1) values and ethics for IP practice, 2) roles and responsibilities for collaborative practice, 3) IP teamwork and team-based practice, and 4) IP communication practices (IPEC, 2016). These, along with the personal and social emotional intelligence (EI) competency domains, form the theoretical frameworks that support the proposed model for integrating EI into interprofessional healthcare education.

The interprofessional (IP) competency domain of Values/Ethics for Interprofessional Practice includes important elements of humanism and morality, as outlined by IPEC (2016). This domain highlights that teamwork involves not only the values of the IP team but also the moral responsibility to the broader community. Ethics are fundamental values in all healthcare professions, and mutual respect and trust are key foundations of IP approaches to healthcare. Interprofessional ethics are viewed as a moral obligation for all healthcare professionals. The remaining three competencies are the focus of this study.

Building on the integrated interprofessional (IP) and emotional intelligence (EI) competencies, a testable model was developed to propose relationships between the IP and EI variables, called the Meshing Emotional Intelligence Determinants and Interprofessional

Collaboration Competencies (MEDICC) model This model serves as the foundation for the study conducted.

The personal emotional intelligence (EI) competency domain of self-awareness (SA) includes the individual competency of emotional self-awareness, which is the ability to recognize one's emotions and understand how they impact others. The personal EI competency domain of self-management (SM) encompasses emotional self-control, adaptability, achievement orientation, and a positive outlook. Emotional self-control refers to the ability to manage disruptive emotions and impulses. Adaptability is the extent to which a person demonstrates flexibility in responding to change. Achievement orientation involves striving for personal growth and excellence, while a positive outlook is generally understood as maintaining optimism about current and future circumstances (Boyatzis, 2018). These personal emotional intelligence competencies are essential for individuals to accurately assess themselves and recognize their strengths and weaknesses. Understanding these emotional competencies is crucial for managing emotions and forms the foundation for developing social competencies. Data from Boyatzis & Goleman's extensive research show that self-awareness (SA) is a key emotional intelligence (EI) competency, and without it, scores in other EI domains tend to be low (Boyatzis & Goleman, 2017). Individuals with low SA typically score lower in areas such as empathy, inspirational leadership, conflict management, influence, and coaching/mentoring, most of which are components of relationship management (RM) (Boyatzis & Goleman, 2017).

The emotional intelligence (EI) social awareness (SOA) competency domain includes empathy, which is the ability to understand and appreciate the feelings, perspectives, and concerns of others, as well as relationship management (RM), which involves perceiving emotional undercurrents and power dynamics within groups. In the model, the EI relationship management (RM) domain is proposed as the mediating variable between the other EI domains and the interprofessional (IP) variables of interest. Proficiency in eliciting the best performance from others includes individual competencies such as coaching/mentoring, inspirational leadership, influence, conflict management, and teamwork. Coaching/mentoring behaviors involve understanding another person's development needs and using strategies to enhance their performance. Inspirational leadership is defined by the ability to inspire and guide others, while influence refers to the skill of persuading others to take actions that maximize their performance. Conflict management and teamwork competencies are closely connected. Conflict management involves using effective negotiation to resolve disagreements, while teamwork focuses on collaborating within team dynamics to achieve shared goals (Boyatzis, 2018). Specifically, conflict management includes developing consensus, respecting and understanding interprofessional (IP) roles, constructively managing disagreements, and fostering shared accountability, which aligns with the teamwork competencies outlined by IPEC (2016). One goal of this study is to examine the relationships between the personal and social emotional intelligence (EI) domains and relationship management (RM), as well as the impact of RM on interprofessional teamwork (IPT), communication (IPC), and leadership (IPL).

The relationship management (RM) domain shares leadership competencies between emotional intelligence (EI) and interprofessional leadership (IPL), including teamwork, influence, conflict management, coaching/mentoring, and inspirational leadership. These RM domain competencies are more easily observed as outwardly expressed social components of EI. Relationship management (RM) competencies are expected to impact interprofessional (IP) teamwork, communication, and leadership behaviors.

The concept of interprofessional teamwork (IPT) was derived from IPEC's description of applying relationship-building values and team dynamics principles, where each team member works together to "plan, deliver, and evaluate safe, efficient, and equitable" outcomes from both their specialty perspective and the team's collective goals (IPEC, 2016). According to IPEC, the interprofessional communication (IPC) competency requires healthcare professionals to communicate "in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health, as well as the prevention and treatment of disease" (IPEC, 2016). Another IPEC competency, roles and responsibilities for collaborative practice, led to the extraction of the interprofessional leadership (IPL) concept, which emphasizes interdependence and complementary practices inherent in collaboration. Leaders facilitate this collaboration, and therefore, this aspect was used in the study, rather than the entire competency.

Drawing from the literature, interprofessional teamwork (IPT) and interprofessional communication (IPC) competencies are influenced by both personal and social emotional intelligence (EI) domains, with relationship management (RM) playing a central role in the study model. The RM social EI domain includes externally observable EI competencies, and it is expected that higher scores in the RM domain will predict higher scores in IPC, IPT, and interprofessional leadership (IPL).

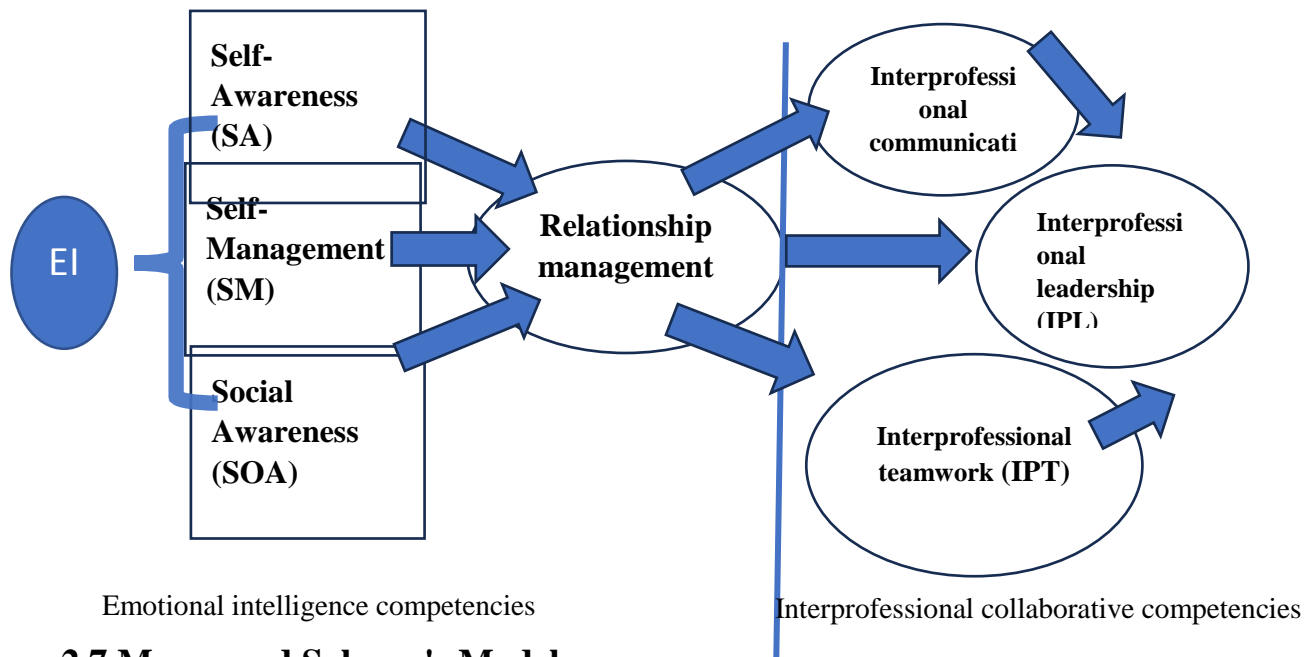
Proposed MEDICC Model

The core premise of the MEDICC model is that relationship management (RM) competencies are crucial for fostering optimal interprofessional communication (IPC), teamwork (IPT), and leadership (IPL) behaviors. The RM domain includes shared leadership competencies between emotional intelligence (EI) and IPL, such as teamwork, influence, conflict management, coaching/mentoring, and inspirational leadership. This domain is anticipated to have the strongest impact on interprofessional behaviors related to teamwork, communication, and leadership, making it a central component of the theoretical framework for this study. Additionally, the proposed MEDICC model, asserts that the relationship management (RM) domain will serve as a mediating variable between the other emotional intelligence (EI) domains and interprofessional teamwork (IPT), communication (IPC), and leadership (IPL). For this assumption to hold true, a direct relationship between RM and IPL must exist.

A comprehensive review of the literature on personal and social emotional intelligence (EI) and its established links to teamwork and communication in the business field identified specific elements within each EI domain that are strongly related to Advanced Practice Registered Nurse (APRN) competencies, as defined by the Quality and Safety Education for Nurses (QSEN) and the Essentials of Master's Education in Nursing (AACN, 2011; AACN, 2012). These APRN and personal and social EI competencies were organized in a matrix, aligning EI domains with teamwork, communication, and leadership (Cox, 2018). The review also considered how all four EI domains influence interprofessional (IP) team dynamics, integrating IPEC competencies (IPEC, 2016) into the crosswalk. Based on this framework, the MEDICC model was proposed, illustrating how the personal and social EI domains—self-awareness (SA), self-management (SM), and social awareness (SOA)—predict relationship management (RM), and how RM influences interprofessional teamwork (IPT), communication (IPC), and leadership (IPL). The model further suggests that IPT and IPC ultimately predict IPL, and proposes that SA, SM, and SOA competencies are interconnected.

Proposed Meshing Emotional Intelligence Determinants and Interprofessional Collaboration

Competencies (MEDICC) Model.



2.7 Mayer and Salovey's Model

According to Salovey and Mayer, emotional intelligence encompasses four key abilities:

1. **Recognizing Emotions** – This refers to the skill of identifying and interpreting emotions in faces, voices, pictures, and cultural symbols, as well as understanding one's own emotions. Recognizing emotions serves as the foundation for processing emotional information.
2. **Leveraging Emotions for Thinking** – This involves the capacity to evoke, harness, and apply emotions to support communication, decision-making, and other cognitive activities.
3. **Comprehending Emotions** – This ability focuses on grasping emotional dynamics, including how emotions interact, evolve in relationships, and represent complex, shifting emotional states.
4. **Regulating Emotions** – This is the skill of being receptive to emotions and effectively managing them in oneself and others to foster understanding, growth, and personal development. Emotional regulation plays a crucial role in optimizing intelligence (Salovey and Mayer, 1997)

Emotional intelligence (EI) has become a popular topic in organizational behavior in recent years. EI is the capacity for recognizing our feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and our relationships. This much is

accepted by most proponents of the idea, although there is no complete agreement on how these capacities are to be defined and the best ways of measuring them. One of the more influential models of EI has been that of Salovey and Mayer, which defines EI as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey and Mayer 1990). They have developed an ability-based model of EI

2.8 Goleman's Model

Daniel Goleman's model of **Emotional Intelligence (EI)** is a framework that categorizes emotional intelligence into five key components, which are often grouped into **personal competencies** and **social competencies**. These components are critical for effective self-management and interpersonal interactions, especially in professional settings like nursing and leader

1. Self-Awareness

Self-awareness involves recognizing and understanding your emotions, their triggers, and their impact on behavior and decision-making. This component is essential for self-reflection and ensures that personal emotions do not negatively influence professional interactions. It includes the ability to assess one's strengths and limitations accurately, fostering confidence and emotional insight. Self-awareness is foundational in emotional intelligence because it allows individuals to better regulate themselves and respond thoughtfully to situations. (Goleman, 1995; Goleman, Boyatzis & McKee, 2013)

2. Self-Management

Self-management refers to the ability to control and regulate one's emotions, particularly in challenging or stressful situations. This skill helps individuals stay composed, adaptable, and proactive. It encompasses self-control, emotional flexibility, and the ability to maintain a positive outlook despite setbacks. Leaders with strong self-management skills can set a positive example by remaining calm and solution-focused during crises. (Goleman, 1995; Goleman, 2000)

3. Social Awareness

Social awareness is the ability to empathize with others and understand their emotions, needs, and perspectives. It includes recognizing nonverbal cues, being culturally sensitive, and understanding group dynamics. Social awareness also extends to recognizing organizational contexts and anticipating the needs of others, which is crucial for effective collaboration and teamwork. (Goleman, 1995; Goleman, 2006)

4. Relationship Management

Relationship management involves effectively building and maintaining positive relationships. It requires skills such as conflict resolution, communication, and the ability to inspire and influence others. This component is critical for teamwork and leadership, as it enables individuals to foster trust, collaboration, and shared goals. Strong relationship management ensures productive interactions and a supportive work environment. (Goleman, 1995; Goleman, Boyatzis & McKee, 2013)

Goleman's model highlights the importance of emotional intelligence in both personal and professional success, especially in leadership and teamwork. Goleman's model has been

used as the blueprint for the development of many other models of EI. Goleman's original model may be the most famous but is in no way the only model, and it has been criticized by many academics. Goleman defined EI as the array of skills and characteristics that drive leadership performance. (Busu,2020).

Chapter Three

Methodology

Research Methodology

3.1 Study setting

This study took place at three large public universities in the southern west bank, Palestine. (Al Quds University, Hebron University, Palestine Ahliya University) . were recruited to participate in the study.

3.2 Study Design:

A quantitative cross-sectional, descriptive, A correlational research study approach was utilized to investigate the influence of emotional intelligence on interprofessional teamwork, communication, and leadership within healthcare settings

3.3 Sampling Design and Sample size calculation:

- A nonprobability convenience sample was obtained from a 3rd and 4th year undergraduate nursing students anticipated to graduate in spring 2024-2025.
- To determine the specific effect size, I performed a power analysis. And to calculate the statistical power, I used G*Power software. The input parameters used in the power analysis include an effect size of 0.10, an alpha level of 0.05, a power of 0.80, and two predictors. Based on these parameters, the power of the study was 0.9119, and the determined sample size is 320 including 10% more than the calculated sample to compensate for potentially missing data.

4.2 Data Collection Technique:

An study questionnaire using was created containing the IPTCI and IPCCI and additional demographic questions of self-identified gender, age, university, years of education , and academic year.

3.5 Inclusion and exclusion criteria:

Inclusion criteria:

Being enrolled in the BA nursing program, and being over the age of 18 years.

Exclusion criteria:

included those with previous experience working as a diploma nurse and being under the age of 18 years

3.6 The Pilot of Study:

- A pilot study was done before data collection; it was applied on (30) of nursing students.

➤ **The Pilot Study Objective**

1. In order finding out the reliability of surveys.
2. To estimate how long, it will take to answer each scale.
3. To recognize any challenges that may arise throughout the research.
4. To know if the participants had no trouble understanding the survey.

➤ **The Reliability of Instrument** : The Cronbach's Alpha Values of Study Instrument as a whole was **0.921**.

3.7 Data Collection Instruments:

- Emotional Intelligence (EI) domains were measured by the four subscales of the proprietary Emotional and Social Competency Inventory-University (ESCI-U). The ESCI-U subscales represented the EI domains SA, SM, SOA, and RM.
- The IPT and IPC competencies were measured by the researcher-developed inventories IPTCI, and IPCCI.
- The IPL competencies were measured by an adapted inventory based on the valid and reliable public domain measure the Interprofessional Collaboration Assessment Inventory (ICAR®), which was re-titled as the Interprofessional Leadership Competency Inventory (IPLCI). All measures within the study were self-perception measures.

3.8 Data Analysis

- Frequencies and percentages were used to examine the nominal and ordinal level variables, with means and standard deviations used for the continuous-level data.
- A correlation matrix to provide initial relationships among study variables.
- Independent sample t-tests were conducted to explore how demographics influenced study variables.
- A series of linear regression analyses were conducted to answer the research questions.

3.9 Ethical Considerations:

- Primary approval for the main study was obtained through Al-Quds University Institutional Review Board (IRB).
- Additional approvals were obtained from each targeted university.
- Potential participants were informed of the study via a Participant Informed Consent that included: purpose of the study, what data collection would occur, details and descriptions and instructions for the study questionnaires, potential risks and benefits of participation, right to withdraw from study without penalty, and the contact information of the principal investigator of the study. Data was kept on a password-protected computer through the study period. Once the study is completed, the data was discarded.

Chapter 4

Results

Introduction

4.1 Demographic Characteristics of Participants

The final sample consisted of 306 participants Table (4.1) summarizes the socio-demographic characteristics of the students studying in three Palestinian Universities in West-bank, Palestine. The majority of the participants 219(71.6%) were females compared to 87(28.4%) males. Participants ages was (19-23) years, with half of them 154 (50.3%) were between 20 and 22-year-old, followed by 129 (42.2%) were less than 20 years-old, and only 23 students (7.5%) were more than 22 years old. Most of the participants (77.1%) reported not having another career prior to entering nursing school, compared to (22.9%) reported not having another career prior to entering nursing school. The participants were studying in three Palestinian Universities namely: Al-Quds University, Palestinian Ahlya University, and Hebron University, 131 (42.8%) were from Al-Quds University, 94 (26.5%) were from Hebron University, and 81 (26.5%) from Palestine Ahlya University. Regarding the academic year of the participants, 166(54.2%) were third year students, and 140(45.8%) were fourth year students.

Table (4.1) Study Sample Demographic Data

Characteristic	Numbers	Percentages (%)
Gender		
Male	87	28.4
Female	219	71.6
Age-group		
< 20 year	129	42.2
20-22 year	154	50.3

>22 year	23	7.5
Having another career prior to entering nursing school		
yes	70	22.9
No	236	77.1
Name of your university		
Al-Quds University	131	42.8
Palestine Ahlya University	81	26.5
Hebron University	94	30.7
Academic Year		
3 rd year	166	54.2
4 th year	140	45.8

4.2 Emotional Intelligence Assessment

To help further understand EI in healthcare professions students, all 306 participant's data were examined. All EI domain means were over 4, which indicated that most participants perceived themselves as emotionally intelligent (Table 4.2). Of note, the personal competence domains had the highest mean score (SM), which offers opportunity to consider how participants may have understood the items within each of these domains' subscales. That said, Achievement Orientation SM domain subscale had the highest mean, which could indicate some social acceptability bias, as the sample was in health professions students who are expected to be achievers.

To help further understand interprofessional practice (IPP) in healthcare professions students, all 306 participant's data who completed the study questionnaire were examined for each of the interprofessional (IP) competency inventories. The Interprofessional communication Competency (IPCC) mean was 4.37 (SD = 0.4) indicating some participants were unsure of their IP communication competency, which was the lowest mean among the IP variables. The IPTC mean was 4.62 (SD = 0.3), indicating participants were confident in their IP teamwork competence, which was the highest mean among the IP variables. The IPLC mean was 4.45 (SD = 0.3), indicating some participants were unsure of their IP leadership competence.

Table (4.2) Prescribed range of EI scoring

ECI Cluster	Competency	Low Range	Medium Range	High Range
Self-Management	<i>Achievement Orientation</i>	<3.75	3.75-4.04	>4.04
	<i>Adaptability</i>	<3.72	3.73-3.98	>3.98
	<i>Emotional Self-Control</i>	<3.78	3.79-4.07	>4.07
	<i>Positive Outlook</i>	<3.50	3.51-3.84	>3.84
Social Awareness	<i>Empathy</i>	<3.92	3.93-4.21	>4.21
	<i>Organizational Awareness</i>	<3.68	3.68-4.02	>4.02
Relationship Management	<i>Conflict Management</i>	<2.95	2.96-3.25	>3.26
	<i>Coach & Mentor</i>	<3.66	3.67-4.03	>4.03
	<i>Influence</i>	<3.55	3.56-3.88	>3.88
	<i>Inspirational Leadership</i>	<3.71	3.72-4.08	>4.08
	<i>Teamwork</i>	<3.98	3.99-4.25	>4.25

4.3 Descriptive statistic

Descriptive statistics (mean, and standard deviation) for the Self-Management cluster were calculated by responder academic year (i.e., 3rd year and 4th year; Table 4.3). The mean competency and cluster scores were roughly similar across the two groups. Although individual respondents reported that the leaders used the competencies ranging from “sometimes” to “consistently,” on average, all responder groups reported that the leaders used the competencies “often.” Moreover, standard deviations were rather low, indicating little variability in the scores. Mean scores for third year ranged from 3.28 for Emotional Self-Control to 4.37 for Achievement Orientation, and mean scores for fourth year ranged

from 3.29 for Emotional Self-Control to 4.18 for positive Outlook

Cluster	Competency	N	Mean	SD
Self-Management (SM)		306	4.50	0.5
	<i>Achievement Orientation</i>	306	4.28	0.6
	<i>Adaptability</i>	306	4.26	0.6
	<i>Emotional Self-Control</i>	306	3.28	0.5
	<i>Positive Outlook</i>	306	4.29	0.7
Social Awareness (SOA)		306	4.17	0.6
	<i>Empathy</i>	306	4.17	0.6
	<i>Organizational Awareness</i>	306	4.22	0.7
Relationship Management (RM)		306	4.01	0.4
Interprofessional Communication (IPC)		306	4.37	0.4
Interprofessional Teamwork (IPT)		306	4.62	0.3
Interprofessional Leadership (IPL)		306	4.45	0.3
	<i>Communication</i>	306	4.59	0.3
	<i>Collaboration</i>	306	4.53	0.4
	<i>Roles and Responsibility</i>	306	4.43	0.4
	<i>Collaborative</i>	306	4.38	0.6
	<i>Team Functioning</i>	306	4.31	0.6
	<i>Conflict</i>	306	4.42	0.5

Table(4.3) Summary Statistics Table for Study Variables

Descriptive statistics (mean, and standard deviation) for the Self-Management cluster were calculated by responder academic year (i.e., 3rd year and 4th year; Table 4.4). The mean competency and cluster scores were roughly similar across the two groups. Although individual respondents reported that the leaders used the competencies ranging from “sometimes” to “consistently,” on average, all responder groups reported that the leaders used the competencies “often.” Moreover, standard deviations were rather low, indicating little variability in the scores. Mean scores for third year ranged from 3.28 for Emotional Self-Control to 4.37 for Achievement Orientation, and mean scores for fourth year ranged from 3.29 for Emotional Self-Control to 4.18 for positive Outlook.

Summary Statistics Table for Study Variables

Table (4.4) Descriptive Statistics by Academic Year

Descriptive Statistics for Self-Management

Competency	Third Year		Fourth Year	
	N	Mean (SD)	N	Mean (SD)
Overall Self-management Cluster	166	4.09(.5)	140	3.94(.5)
Achievement Orientation	166	4.37(.7)	140	4.17(.6)
Adaptability	166	4.34(.6)	140	4.15(.6)
Emotional Self-Control	166	3.28(.5)	140	3.29(.6)
Positive Outlook	166	4.38(.6)	140	4.18(.8)

Descriptive statistics (mean, and standard deviation) for the Social Awareness cluster were calculated by responder academic year (i.e., 3rd year and 4th year; Table 4.5). The mean competency and cluster scores were roughly similar and above 4.00 across the two groups. Although individual respondents reported that the leaders used the competencies ranging from “sometimes” to “consistently,” on average, all responder groups reported that the leaders used the competencies “often.” Moreover, standard deviations were rather low, indicating little variability in the scores. Mean scores for third year ranged from 4.30 for Empathy to 4.36 for Organizational Awareness, and mean scores for fourth year ranged from 4.02 for Empathy to 4.05 for Organizational Awareness.

Table (4.5) Descriptive Statistics for Social Awareness

Competency	Third Year		Fourth Year	
	N	Mean (SD)	N	Mean (SD)
Overall Social awareness Cluster	166	4.30(.5)	140	4.02(.7)
Empathy	166	4.30(.5)	140	4.02(.7)
Organizational Awareness	166	4.36(.7)	140	4.05(.7)

Descriptive statistics (mean, and standard deviation) for the Relationship management cluster were calculated by responder academic year (i.e., 3rd year and 4th year; Table 4.6). The mean competency and cluster scores were roughly similar across the two groups. Although individual respondents reported that the leaders used the competencies ranging from “sometimes” to “consistently,” on average, all responder groups reported that the leaders used the competencies “often.” Moreover, standard deviations were rather low, indicating little variability in the scores. Mean scores for third year ranged from 3.80 for Inspirational Leadership to 4.31 for Influence, and mean scores for fourth year ranged from 3.81 for Coach and Mentor to 4.14 for Teamwork.

Table (4.6) Descriptive Statistics for Relationship management

Competency	Third Year		Fourth Year	
	N	Mean (SD)	N	Mean (SD)
Overall Relationship management Cluster	166	4.02(.3)	140	3.99(.6)
Conflict Management	166	3.87(.4)	140	3.93(.7)
Coach and Mentor	166	3.91(.7)	140	3.81(.7)
Influence	166	4.31(.7)	140	4.10(.7)
Inspirational Leadership	166	3.80(.6)	140	3.96(.9)
Teamwork	166	4.14(.5)	140	4.14(.4)

4.4 Comparison of the means

The competency scores and cluster scores were compared based on gender, age-group, university, and academic year.

In this sample, analyses were conducted to explore differences in ESCI competency's clusters and Interprofessional (IP) variables between male and female healthcare professions students. Significant gender differences were observed in all EI domains except for Interprofessional Leadership (IPL) (Table 4.7). Female students scored significantly higher than male students in the three domains of Self-Management (SM; $t = -4.57, p < .001$), Social Awareness (SOA; $t = -3.03, p = .003$), and Relationship Management (RM; $t = -1.99, p = .048$).

Table (4.7) Differences in ESCI clusters and Interprofessional (IP) Variables among Sample Subgroups: Gender of Students

Variable (clusters)	Gender	Mean (SD)	t-statistics (df)	P-value
Self-Management (SM)	Male (n=87)	3.82(.8)	-4.57(304)	<.001
	Female (n=219)	4.11(.3)		
Social Awareness (SOA)	Male (n=87)	4.00(.8)	-3.03(304)	.003
	Female (n=219)	4.24(.6)		
Relationship Management (RM)	Male (n=87)	3.94(.4)	-1.99(304)	.048
	Female (n=219)	4.03(.3)		
Interprofessional Communication (IPC)	Male (n=87)	4.27(.5)	-3.02(304)	.003
	Female (n=219)	4.41(.3)		
Interprofessional Teamwork (IPT)	Male (n=87)	4.71(.2)	3.30(304)	.001
	Female (n=219)	4.59(.3)		
Interprofessional Leadership (IPL)	Male (n=87)	4.44(.3)	-.66(304)	.510
	Female (n=219)	4.46(.3)		

Seven ESCI competencies were found to have significant differences in the mean based on gender (Table 4.8). Achievement Orientation $t = 3.22, p = 0.001$, Adaptability $t = -3.94, p < 0.001$, Emotional $t = -3.94, p = 0.020$, Positive Outlook $t = -5.06, p < 0.001$, Empathy $t = -3.03, p = 0.003$, Organizational Awareness $t = -2.17, p = 0.031$, Coach and Mentor $t = -2.14, p < 0.001$ and Influence $t = 3.54, p < 0.001$.

Table (4.8) Differences in ESCI competency scores among Sample Subgroups: Gender of Students

Competency scores	gender	N	Mean (SD)	t-statistics (df)	P-value
Achievement Orientation	male	87	4.09(.9)	-3.22(304)	0.001
	female	219	4.35(.5)		
Adaptability	male	87	4.04(.9)	-3.94(304)	<0.001
	female	219	4.34(.4)		
Emotional	male	87	3.17(.8)	-2.35(304)	0.020
	female	219	3.33(.4)		
Positive Outlook	male	87	3.98(.9)	-5.06(304)	<0.001
	female	219	4.40(.5)		
Empathy	male	87	3.99(.8)	-3.03(304)	0.003
	female	219	4.24(.6)		
Organizational Awareness	male	87	4.08(.9)	-2.17(304)	0.031
	female	219	4.28(.7)		
Conflict Management	male	87	3.81(.7)	-1.92(304)	0.056
	female	219	3.93(.4)		
Coach and Mentor	male	87	3.75(.7)	-1.81(304)	0.071
	female	219	3.91(.7)		
Influence	male	87	4.00(.8)	-3.54(304)	<0.001
	female	219	4.30(.6)		
Inspirational Leadership	male	87	3.96(.7)	1.26(304)	0.211
	female	219	3.84(.8)		
Teamwork	male	87	4.16(.5)	.55(304)	0.581
	female	219	4.13(.4)		

To help further understand IPP in healthcare professions students, independent samples *t*-test was conducted to explore differences in Interprofessional (IP) variables between the participants by academic year (3rd and 4th year students) healthcare professions students. Significant academic year differences were observed in three EI domains including SM, SOA, and IPL, but not for the other three domains including RM, IPC, and IPT (Table 4.9). Third year students scored significantly higher than fourth year students in the three domains of Self-Management (SM; $t = 2.58$, $p = .010$), Social Awareness (SOA; $t = 3.97$, $p < .001$), and Interprofessional Leadership (IPL; $t = 3.72$, $p < .001$).

Table (4.9) Differences in Study Variables among Sample Subgroups: 3rd year and 4th year Students

Variable	Academic year	Mean (SD)	t-statistics (df)	P-value
Self-Management (SM)	3 rd (n=166)	4.09(.5)	2.58(304)	.010
	4 th (n=140)	3.94(.5)		
Social Awareness (SOA)	3 rd (n=166)	4.30(.5)	3.97(304)	<.001
	4 th (n=140)	4.02(.7)		
Relationship Management (RM)	3 rd (n=166)	4.02(.3)	.67(304)	.502
	4 th (n=140)	3.99(.4)		
Interprofessional Communication (IPC)	3 rd (n=166)	4.38(.6)	.19(304)	.853
	4 th (n=140)	4.37(.4)		
Interprofessional Teamwork (IPT)	3 rd (n=166)	4.62(.3)	-.43(304)	.665
	4 th (n=140)	4.63(.3)		
Interprofessional Leadership (IPL)	3 rd (n=166)	4.51(.3)	3.72(304)	<.001
	4 th (n=140)	4.39(.4)		

In this sample, analyses were conducted to explore differences in Interprofessional (IP) variables between healthcare professions students based on having another career prior to entering nursing school or not. Significant differences were observed in four EI domains except for Relationship Management (RM) and Interprofessional Communication (IPC) (Table 5.1). students who don't have another career prior to entering nursing school scored significantly higher than those students who have a career prior to entering nursing school in the four domains of Self-Management (SM; $t = -4.11, p < .001$), Social Awareness (SOA; $t = -2.36, p = .019$), Interprofessional Teamwork (IPT; $t = 2.33, p = .020$), and Interprofessional Leadership (IPL; $t = -2.64, p = .009$).

Table (5.1) Differences in Study Variables among Sample Subgroups: Having another career prior to entering nursing school

Variable	Have another career prior to entering nursing school	Mean (SD)	t-statistics (df)	P-value
Self-Management (SM)	Yes(n=70)	3.81(.8)	-4.11(304)	<.001
	No (n=236)	4.09(.4)		
Social Awareness (SOA)	Yes(n=70)	4.01(.6)	-2.36(304)	.019
	No (n=236)	4.22(.6)		
Relationship Management (RM)	Yes(n=70)	3.97(.4)	-.92(304)	.357
	No (n=236)	4.02(.4)		
Interprofessional Communication (IPC)	Yes(n=70)	4.33(.5)	-.92(304)	.416
	No (n=236)	4.38(.4)		
Interprofessional Teamwork (IPT)	Yes(n=70)	4.69(.3)	2.33(304)	.020
	No (n=236)	4.60(.4)		
Interprofessional Leadership (IPL)	Yes(n=70)	4.38(.5)	-2.64(304)	.009
	No (n=236)	4.48(.4)		

To help further understand IPP in healthcare professions students, One Way ANOVA was conducted to explore differences in Interprofessional (IP) variables between the participants by age-group of healthcare professions students. Significant age-group differences were observed in all EI domains except for Interprofessional Teamwork (IPT) (Table 5.2). Students of age less than 20 years old scored significantly higher than students of other age-groups in the five domains of Self-Management (SM; $t = 8.41, p < .001$), Social Awareness (SOA; $t = 12.37, p < .001$), Relationship Management (RM; $t = 11.01, p < .001$), Interprofessional Communication (IPC; $t = 5.01, p = 0.007$), and Interprofessional Leadership (IPL; $t = 6.02, p = .003$), except for Interprofessional Teamwork (IPT; $t = 2.37, p = 0.095$).

Table (5.2) Differences in Study Variables among Sample Subgroups: Age-group of Students

Variable	Age-group	Mean (SD)	F-statistics(df)	P-value
Self-Management (SM)	< 20 (n=129)	4.16(.3)	8.41(2)	<.001
	20-22 (n=154)	3.94(.6)		
	>22 (n=23)	3.84(.4)		
Social Awareness (SOA)	< 20 (n=129)	4.32(.5)	12.37(2)	<.001
	20-22 (n=154)	4.12(.7)		
	>22 (n=23)	3.65(.7)		
Relationship Management (RM)	< 20 (n=129)	4.12(.3)	11.01(2)	<.001
	20-22 (n=154)	3.93(.4)		
	>22 (n=23)	3.89(.4)		
Interprofessional Communication (IPC)	< 20 (n=129)	4.44(.3)	5.01(2)	.007
	20-22 (n=154)	4.30(.4)		
	>22 (n=23)	4.47(.3)		
Interprofessional Teamwork (IPT)	< 20 (n=129)	4.60(.3)	2.37(2)	.095
	20-22 (n=154)	4.66(.3)		
	>22 (n=23)	4.56(.3)		
Interprofessional Leadership (IPL)	< 20 (n=129)	4.51(.2)	6.02(2)	.003
	20-22 (n=154)	4.42(.3)		
	>22 (n=23)	4.37(.4)		

Seven ESCI competencies were found to have significant differences in the mean based on age-group (Table 5.3). Achievement Orientation $t = 9.81$, $p = 0.001$, Adaptability $t = -10.81$, $p < 0.001$, Positive Outlook $t = 3.83$, $p = 0.023$, Empathy $t = 12.37$, $p < 0.001$, Organizational Awareness $t = 15.59$, $p < 0.001$, Coach and Mentor $t = 12.27$, $p < 0.001$ and Influence $t = 16.01$, $p < 0.001$.

Table (5.3) Differences in ESCI competency scores among Sample Subgroups: Age-group of Students

Competency scores	Age-group	N	Mean (SD)	t-statistics (df)	P-value
Achievement Orientation	less than 20	129	4.46(.4)	9.81(2)	<0.001
	20-22	154	4.16(.8)		
	23 and above	23	4.03(.7)		
Adaptability	less than 20	129	4.44(.5)	10.81(2)	<0.001
	20-22	154	4.14(.7)		
	23 and above	23	4.01(.5)		
Emotional	less than 20	129	3.33(.4)	0.88(2)	0.415
	20-22	154	3.25(.6)		
	23 and above	23	3.23(.5)		
Positive Outlook	less than 20	129	4.40(.4)	3.83(2)	0.023
	20-22	154	4.22(.9)		
	23 and above	23	4.09(.4)		
Empathy	less than 20	129	4.32(.5)	12.37(2)	<0.001
	20-22	154	4.12(.7)		
	23 and above	23	3.65(.7)		
Organizational Awareness	less than 20	129	4.48(.6)	15.59(2)	<0.001
	20-22	154	4.04(.7)		
	23 and above	23	3.97(.8)		
Conflict Management	less than 20	129	3.94(.4)	0.71(2)	0.494
	20-22	154	3.87(.6)		
	23 and above	23	3.84(.4)		
Coach and Mentor	less than 20	129	4.08(.6)	12.27(2)	<0.001
	20-22	154	3.670(.7)		
	23 and above	23	3.76(.6)		
Influence	less than 20	129	4.47(.6)	16.01(2)	<0.001
	20-22	154	4.04(.7)		
	23 and above	23	4.02(.8)		
Inspirational Leadership	less than 20	129	3.85(.6)	.89(2)	0.410
	20-22	154	3.92(.9)		
	23 and above	23	3.70(.5)		
Teamwork	less than 20	129	4.18(.5)	0.83(2)	.436
	20-22	154	4.11(.5)		
	23 and above	23	4.10(.4)		

To help further understand IPP in healthcare professions students, One Way ANOVA was also conducted to explore differences in Interprofessional (IP) variables between the participants by university of healthcare professions students. Significant university differences were observed only in two EI domains including Social Awareness (SOA; $t=3.69$, $p=0.026$) and Interprofessional Communication (IPC; $t=4.29$, $p=0.015$) (Table 5.4).

Table(5.4)Differences in Study Variables among Sample Subgroups: University of Students

Variable	University	Mean (SD)	F-statistics(df)	P-value
Self-Management (SM)	Al-Quds(n=131)	4.05(.3)	.26(2)	.272
	Palestine Ahlya(81)	4.00(.6)		
	Hebron (94)	4.02(.6)		
Social Awareness (SOA)	Al-Quds(n=131)	4.09(.6)	3.69(2)	.026
	Palestine Ahlya(81)	4.15(.7)		
	Hebron (94)	4.32(.6)		
Relationship Management (RM)	Al-Quds(n=131)	3.98(.4)	.57(2)	.566
	Palestine Ahlya(81)	4.01(.3)		
	Hebron (94)	4.03(.3)		
Interprofessional Communication (IPC)	Al-Quds(n=131)	4.44(.3)	4.29(2)	.015
	Palestine Ahlya(81)	4.29(.4)		
	Hebron (94)	4.35(.4)		
Interprofessional Teamwork (IPT)	Al-Quds(n=131)	4.62(.3)	.01(2)	.989
	Palestine Ahlya(81)	4.63(.3)		
	Hebron (94)	4.63(.2)		
Interprofessional Leadership (IPL)	Al-Quds(n=131)	4.43(.3)	1.20(2)	.304
	Palestine Ahlya(81)	4.49(.2)		
	Hebron (94)	4.45(.3)		

4.5 Correlation Analysis

In the correlation matrix, the relationships between the variables can be seen more clearly (Table 5.5). Self-management (SM) and social awareness (SA) were positively correlated $r = .49$, $p < .001$, as were SM and RM $r = .43$, $p < .001$. As expected, Self-management is an important part of all of the EI variables. Self-management is obviously crucial to social interactions and managing relationships, since self-control is an expectation in professional interactions, and this research demonstrates the strong correlation between these variables. RM was strongly positively related to SOA $r = .33$, $p < .001$ in addition to SOA and SM. As predicted, RM is the key to managing IP interactions.

For the correlations with the IP variables, there were no strong correlations with the EI variables, however, both IPT and IPC were highly correlated with IPL ($r = .49$, $p < .001$; $r = .36$, $p < .001$). Additionally, IPT and IPC were not strongly correlated at $r = .36$, $p < .001$. It is obvious that teamwork and communication are essential to good leadership, and that good teamwork and clear communication are vital to positive IP work.

Table (5.5) Correlation Matrix of ESCI Clusters

	Mean (SD)	SM	SOA	RM	IPC	IPT	IPL
Self-management (SM)	4.03(.5)	1					
Social awareness (SOA)	4.17(.6)	.491**	1				
Relationship management (RM)	4.01(.4)	.430**	.337**	1			
Interprofessional communication (IPC)	4.37(.4)	.543**	.305**	.408**	1		
Interprofessional teamwork (IPT)	4.62(.3)	-.165**	-.158**	-.133*	-.040	1	
Interprofessional leadership (IPL)	4.45(.3)	.234**	.131*	.160**	.355**	.288**	1
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							

Pearson correlations were calculated to determine the relationships between students ESCI competency scores (Self-management (SM), Social awareness (SOA) and Relationship management (RM)). Self-management (SM) competencies were positively correlated with social awareness (SOA) and Relationship management (RM). (Table 5.6).

Table (5.6) Correlation Matrix of ESCI competency scores (Self-management (SM), Social awareness (SOA) and Relationship management (RM))

	Mean (SD)	1	2	3	4	5	6	7	8	9	10
1- Achievement Orientation	4.28(.6)	1									
2- Adaptability	4.26(.6)	.634**	1								
3- Emotional	3.28(.6)	.469**	.488**	1							
4- Empathy	4.17(.6)	.632**	.700**	.352**	1						
5- Organizational Awareness	4.22(.7)	.268**	.471**	.345**	.507**	1					
6- Conflict Management	3.90(.5)	.505**	.614**	.325**	.496**	.463**	1				
7- Coaching and Mentoring	3.86(.7)	.363**	.473**	.580**	.396**	.274**	.357**	1			
8- Influence	4.22(.6)	-.047	.201**	.101	.040	.342**	.201**	.233**	1		
9- Teamwork	4.14(.5)	.561**	.612**	.319**	.504**	.398**	.957**	.376**	.244**	1	
10- Social awareness	4.26(.6)	-.147**	-.009	-.064	-.186**	-.009	.073	-.061	.275**	.050	1

** . Correlation is significant at the 0.01 level (2-tailed).

4.6 Direct Effects of EI on Relationship Management

Research Questions Answered

To address the research questions, a series of linear regressions were conducted to examine direct effects. A linear regression is appropriate when testing the predictive relationship between independent variables and a continuous dependent variable. Prior to analysis, the assumptions of a linear regression were tested and found to be met in this sample.

RQ1: Does SA, SM, and SOA have a direct effect on RM?

This question was answered yes (see Table 5.6). Study variables SA and SM were shown to collectively have a direct effect on RM ($F= 39.26, p<.001$). Together, SA and SM accounted for 45% of the variance in RM. On further analysis of the individual relationships, the study variable SA was a significant predictor of RM ($\beta=.166, p=.005$). furthermore, study variables SM ($\beta=.348, p <.001$) was also a significant predictor of RM and contributed the largest amount of variance accounted for in RM.

Table (5.7)EI Domains Relationship with RM

Variable	B	SE	β	t	p
SA	.094	.159	.166	16.37	.005
SM	.250	.033	.348	5.93	<.001

Overall model: $F = 39.26, p <0.001, R^2 = .454$

4.8 Impact of Relationship Management on IP Variables

RQ2: Does RM have a direct effect on IPT and IPC?

This question was answered yes (see Table 5.7). The study variable RM statistically significantly predict IPT ($p = -.181$; $\beta = .257$, $p = .013$) or IPC ($\beta = .357$, $p < .001$), except for IPL ($\beta = .088$, $p = .273$). However, in this sample, RM did account for 13% of the variance in IPT ($R^2 = .133$) and 16% of the variance in IPC ($R^2 = .160$), indicating that there may be meaningful relationships that, due to enough sample size, meet significance. While RM was not a significant predictor of IPL in this sample, RM would be an important variable to include in future studies about EI and IPP.

Table 5.8 RM have a direct effect on IPT, IPC and IPL?

Variable	<i>B</i>	SE	β	<i>t</i>	<i>p</i>	<i>R</i> ²
IPC	.357	.053	.379	6.732	<.001	.160
IPT	-.181	.073	-.137	-2.488	.013	.133
IPL	.088	.081	.065	1.097	.273	.408

Overall model: $F = 22.57$, $p < 0.001$, $R^2 = .428$

RQ3: Does RM have a direct effect on IPL

The analysis revealed that RM does not have a statistically significant direct effect on IPL: $B = 0.088$, $SE = 0.081$, $\beta = 0.065$, $t = 1.097$, $p = 0.273$.

$R^2 = 0.408$, indicating that the overall model explains 40.8% of the variance in IPL, but RM's contribution as a predictor was minimal and not statistically significant. see table

These results suggest that while RM is an important component of emotional intelligence, it does not independently predict IPL in this sample.

The lack of significance ($p = 0.273$) indicates that other variables, such as self-awareness (SA) or social awareness (SOA), might have a stronger influence on leadership competencies in interprofessional settings.

The relatively low standardized beta coefficient ($\beta = 0.065$) further supports the conclusion that RM has only a small and statistically insignificant contribution to IPL.

Chapter Five

Discussion and Recommendations:

5.1 Discussion

5.1.1: Investigation of IP and EI Domains

The investigation of the possible relationship between the IP domains (IPC, IPT, and IPL) and EI domains in this study, as demonstrated by the results, provides a chance to think about consequences for both practice and research. The results of the study provided some support for the MEDICC model, although more verification of the model's linkages is needed.

5.1.2: Differences in EI Competencies Between Student Levels

It's crucial to take into account how third- and fourth-year students differ in their EI domains. Given the nature of this study, more research could be done to determine why third year students could have higher SM, SOA, and RM than fourth year students. Third year students' EI competency may be impacted by not being exposed to the core courses in nursing such as critical care, psychiatric nursing, leadership and management, and community nursing and the idea that nursing, as a science, is based on interpersonal interactions and abilities. For instance, the interpersonal relationships that fourth-year students experience over their educational and training journey may have an impact on their interpersonal abilities and, consequently, diminish their emotional intelligence.

5.1.3: Contributions of EI Domains to Nursing Practice

Higher levels of EI and IP competency may also be reflected in the fact that many of the individual competencies for the EI domains are traits that are also used to characterize the art of nursing, such as self-awareness, adaptability, empathy, conflict management, and teamwork. While third-year students might not yet have developed an identity as a working professional, fourth-year students might define themselves in relation to the IP work they perform through their training of core courses. Students in nursing school are evaluated more on their academic achievement than on their ability to behave in an IP setting. Furthermore, nursing culture may have varying effects on EI and IP competencies since caring as an applied construct is a crucial part of nursing education and on-the-job performance.

5.1.4: Empathy and IP Collaboration

This study provided some support for the relationships found in the MEDICC model, as it was expected that RM would be strong in this sample when SA, SM, and SOA were strong. Nursing students may have more developed abilities to comprehend another person's point of view because SOA, which includes the competency of empathy, was the main contributor to RM. According to Adamson, Loomis, Cadell, and Verweel (2018), interprofessional empathy has been demonstrated to be "a precursor to interprofessional collaboration." IP collaboration is unlikely without interprofessional empathy, which is the foundation of IPT and IPC. When there isn't a common higher objective, this could result in parallel or siloed work and worse patient outcomes (Adamson et al., 2018).

5.1.5: Importance of EI Skills in IPT and IPC

It is important to note that both emotional self-control and adaptability are components of interpersonal interactions in effective IPT, as SM encompasses these competencies and was the next largest contributor to RM. Poor teamwork has been demonstrated to increase morbidity and mortality fivefold (Mazzaco et al., 2009; Kang, Brom, Lasater, & McHugh, 2020), and the quality of IPT has been linked to the quality and safety of health care delivery itself (Rosen et al., 2018). Consequently, spending money on SM and SOA could lead to improved RM, which could improve IP work. Although this pilot study shows promise in that direction, more research is needed to prove that IP interactions rely significantly on RM.

5.1.6: Behavioral "Soft Skills" in IP Interactions

Although the statistical response to the question of whether RM predicts IPT and IPC was significant, there is still a finding about RM's relationship to IPT and IPC that required further research. Although social psychologists contend that behavioral "soft skills" are essential to successful IPT, the effects of RM within IPT have not been previously investigated (Adamson et al., 2018). Instead of examining the "how" of information exchange and its subtle behavioral aspects, IPC is frequently treated in research as merely information exchange (Fox, Gaboury, Chiochio, & Vachon, 2021).

5.1.7: Tools for Enhancing Team Performance

According to this research, focusing on EI skills in IPT and IPC will enhance group dynamics and IP attitudes, which will improve patient outcomes. Similar to how a scalpel is an instrument, tools like Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS™) are only tools to promote IPC and IPT. The key distinction that makes the scalpel a successful tool is not the tool itself, but rather the skill of the person using it. The same can be said for the interpersonal abilities needed to succeed in IPC and IPT. A significant portion of IPC and IPT involves RM skills.

5.1.8: Relationship Between RM and IPL

The regression analysis conducted to determine whether RM has a direct impact on IPL found no statistical evidence supporting a direct effect. However, RM was responsible for 40% of the variance in IPL. According to IPEC, the IPL values the individual qualities listed under RM (inspiring leadership, influence, coach/mentor, conflict management, and teamwork). Positive IP working relationships, constructive criticism, conflict resolution, and

"leadership practices that support collaborative practice and team effectiveness" are specifically listed as IPEC sub-competencies (IPEC, 2016). Further research is warranted because these sub-skills directly relate to those RM individual competencies. The concept that the social features of EI have a significant influence on IPL is supported by the strength of SA, SM, SOA, and RM's contributions to the league. The notion that social intelligence is essential for effective leadership is supported by numerous studies (Boyatzis, 2009; Codier & Codier, 2017; Gransberry, 2021; Bryan, 2021). Regretfully, the majority of these research have not been applied to leadership in US healthcare and are found in the corporate or international healthcare literature.

The ability of a leader to build strong interpersonal relationships with team members who mostly rely on Emotional Intelligence (EI) concepts has become part of optimal leadership principles (IPEC, 2016; Bryan, 2021). The goal of this study is to advance research on this important subject and add to the body of knowledge regarding IPL in healthcare.

Even though research on patient safety shows that IPT is essential to high-quality care outcomes, many IP teams find it difficult to understand what IPT is and how to implement it. These "hows" are mostly caused by the soft talents that emotional intelligence (EI) stands for yet are rarely researched. Furthermore, rather than being a result of interdependence, cooperation is frequently seen as a collection of duties that fall under the purview of various disciplines (Fox et al. 2021; Petit dit Dariel & Cristofalo, 2018). The results of these studies have clinical significance for improved team performance. Although there may not be enough empirical research, studies like this one could bring the significance of EI inclusion in IPE to the attention it needs.

Furthermore, IPT is essential to the IPL, and the RM domain's subscales support this function. Both conflict resolution and teamwork, which are IPL characteristics, are under the RM domain. Rather than the interdependence of making decisions based on the overall objectives of the patient management plan, IPT is frequently defined by the actions of certain disciplines. The team members need to agree on the plan, and IPL is essential to creating the circumstances that allow the IP team to reach a consensus.

The impact of EI, particularly in the social domains, on IPC has been demonstrated in a number of earlier research (Bekkink, Farrell, & Takaesu, 2018; Foronda et al., 2016; Lambert, Vanderbilt, & Papadimos, 2019). The idea is the same: effective communication techniques are crucial in IP interaction, even though the IPC measures used in these studies may differ. Barriers still persist even though a functional IPC is frequently mentioned as a crucial component of IP connections. IPC is commonly hampered by outdated professional hierarchies, misinterpretations of duties and educational preparation, mistrust, and cultural differences within specialties (Foronda et al., 2016; Payne & Patel, 2014). To assist remove these obstacles and normalize the interpersonal components of IPC, further research must be done on how to include EI components in IP training.

5.1.9: Clinical Significance of EI in IP Interactions

This study has provided information to consider that could further bolster the significance of EI abilities in IPT, IPC, and IPL when investigated in a bigger sample. When examined more thoroughly, the behavioral and social "soft skills" components of the best IP interactions can help the IP team understand one another, realize the Future of Nursing, and achieve the fourth Quadruple Aim, which is healthcare provider satisfaction (Rathert, Williams, & Linhart, 2018).

There is evidence to suggest the significance of EI in IPT, IPC, and IPL, even if it is evident that the acceptable sample size help the study in reaching the statistical significance intended. The behavioral and social "soft skills" components of the best IP interactions need to be examined more thoroughly, maybe via a long-term study of IP groups following IPE that incorporates EI.

5.2: Limitation of the study

One significant limitation was that all of the data from the instruments were self-reported. Self-reported behavioral data is not as trustworthy as actual observation, as was previously mentioned. Nonetheless, the goal of this study was self-perception. These measures have acceptable reliability and validity, despite the fact that people with weak self-awareness may overestimate or underestimate their true manifestations of the variables of interest. These measures are the best available because of the inherent time, financial, and human constraints on this kind of research. The literature shows that specific behaviors affect team dynamics and communication, and that behavioral elements can be quantified by EI testing. The ESCI-U was chosen over other available tests that evaluate emotional intelligence because it was designed primarily to measure the behavioral aspects of EI, even using self-reported data (Boyatzis & Goleman, 2017). However, participation was probably hampered by the instrument's complex deployment. Although the researcher concluded that this model would best serve the study's objectives, it was not anticipated that participants would find it difficult to use. Furthermore, it's possible that the MEDICC model's assumptions on the relationship between these EI behaviors and their anticipated influence on IP behaviors are inaccurate because the sample size was insufficient to carry out the initial analysis. Larger sample sizes are required for additional research.

The lengthy study questionnaire, the perceived additional effort by time-pressed professional students, and the intricate participation instructions due to the use of a proprietary tool were all barriers to participation. Another restriction is the availability of students and the morality of surveying students. Students' perceptions of the survey's contents' significance to their practice and education may have an impact on their answers. A participant's perception of importance may also have an impact on whether or not they finish all the surveys. For unclear reasons, at least one-third of the surveys were initiated but never finished. Busy students might have found the main study's survey load too much to handle. As a result, the final student sample was insufficiently large to confirm the validity of the correlations indicated by the MEDICC model. But based on the analysis that was done, there is proof that a more thorough investigation is necessary.

Although self-perception and self-report data collection have inherent biases, as was previously established, self-reported data is used for the majority of behavioral analyses due to time constraints and was taken into consideration when evaluated the study's conclusions. Potential inaccuracy and participant bias while describing one's own actions are among the biases. These tools are the best ones now available and are useful for this study, despite the fact that self-perception is inherently flawed due to implicit bias, selective perception, or basic attribution mistake (Spencer & Brassey, 2017). It was hypothesized that the EI variables SA, SM, and SOA would have a strong link with RM; additional research could clarify which of these domains and subscales might have the most impact. One of the qualities of SOA is empathy, and it's crucial to look into the idea of IP empathy as a factor in IP collaboration.

It seems sense to think about funding EI education to enhance IP work because subpar IPT has been connected to inferior patient outcomes.

5.3: Strength of the Study

This study's strengths include the intriguing distinctions between students in EI and in their self-perceptions in IP relationships that need more research. It would be interesting to investigate these distinctions to see if they result from being in an academically oriented environment, like medical school, as opposed to being a working professional pursuing an advanced degree.

5.4 Recommendations

➤ **Expanded Study Design**

Conduct studies with larger, diverse samples of nursing managers from various healthcare institutions. Focus on the relationship between EI and leadership competencies such as organizational awareness, conflict resolution, and team motivation.

➤ **Integrate EI training into interprofessional education (IPE) to promote better interpersonal interactions and support the development of professionals capable of achieving shared patient outcomes**

➤ **Future research should explore the role of emotional intelligence in enhancing patient care and reducing errors in healthcare settings**

5.5 Summary and Conclusion

Despite the focus on patient safety over the past 20 years, medical errors constitute a major cause of patient morbidity and mortality in our present healthcare system. Two important underlying causes of medical mishaps have been shown to be a lack of communication and an ignorance of crucial patient data. As healthcare delivery continues to develop into increasingly intricate and dispersed systems, care is frequently fragmented and miscommunication opportunities are common. Medical error has not decreased despite the use of communication tools and checklists. The science of healthcare is provided through a network of human connections. Whether the participants are patients, family members, or the various professionals who collaborate to provide care, their emotional intelligence (EI) has an impact on these interpersonal relationships. By analyzing and changing behavior that impacts the dynamics of the IP team, EI can be improved. This study has added to our understanding of how IP interactions—more especially, IPT, IPC, and IPL—relate to EI domains and skills. It is essential that high-quality research be conducted in order to better understand empirically the links between teachable features of IP teamwork and its consequences. The outcome should be the improvement of these behavioral soft skills through the integration of techniques into national healthcare and IPE curricula.

Appendix

Al Quds University
Faculty of Health Professions
Jerusalem – Abu Dis



جامعة القدس
كلية المهن الصحية
القدس – أبو ديس

Research Ethics Subcommittee of Faculty of Health Professions
Letter of approval

Dec. 7, 2024
Ref. No.: RESC/2025-4

Dear Applicants, (**Dr. Farid Ghrayeb, Ms. Reem Hazboun**)
Program: **Nursing Department**

The Research Ethics subcommittee of the Faculty of Health Professions has recently reviewed your proposal entitled (**The influence of emotional intelligence on interprofessional teamwork, communication, and leadership among Nursing students**) submitted by (**Dr. Farid Ghrayeb**). Your proposal is deemed to meet the requirements of research ethics at Al-Quds University, but further assessment is required by the Central Research Ethics Committee of Al-Quds University. We wish you all best for the conduct of the project.

Hussein ALMasri, PhD
Associate Professor of Medical Imaging
Research Ethics Subcommittee Chair
Faculty of Health Professions

Hussein ALMasri

CC: File
CC: Committee members



Al-Quds University
Faculty of Health Professions
Department of Nursing

Research Title:

The influence of emotional intelligence on interprofessional teamwork, communication, and leadership among Nursing students.

Research Abstract:

This study aims to investigate the impact of emotional intelligence on teamwork among health professionals, effective communication, and leadership among nursing students. Through this research, we will investigate how levels of emotional intelligence affect nursing students' ability to collaborate with their colleagues in professional teams, develop effective communication skills, and lead in health work environments. Data will be collected using an anonymous questionnaire, allowing participants to express their opinions and personal experiences in this area. The goal of the study is to provide new insights into the importance of emotional intelligence in enhancing the performance of medical teams and developing leadership and communication skills among nursing students.

We rely on your honest and transparent opinions to better understand the relationship between emotional intelligence, leadership, and teamwork among nursing students.

Thank you for taking the time to contribute to this research.

For any inquiries regarding this research, please contact:

✓ **Academic Supervisor: Dr. Farid Ghraib** **Email: fghrayeb@staff.alquds.edu**

✓ **Researcher: Reem Hazboun**
Master's Student in Nursing Management **Email: reem.hazboun@students.alquds.edu**

1- Demographic Characteristics

- **Age.....**
- **Gender: Male Female**
- **Did you have another profession before joining the Nursing College?**
 Yes **No**

- **University Name:**
- **Academic Year:**

2- Emotional and Social Competency Inventory-University (ESCI-U)

The ESCI clusters highlight four distinct areas of ability:

- Self-Awareness: recognizing and understanding our own emotions
- Social Awareness: recognizing and understanding the emotions of others
- Self-Management: effectively managing our own emotions
- Relationship Management: applying emotional understanding in our dealings with others

- **Perceptions of your behavior agree or differ.**

1= never, 2 = rarely, 3 = sometimes, 4 = often, 5 = Consistently

Item	1 never	2 rarely	3 sometimes	4 often	5 Consistently
1. Initiates actions to improve own performance					
2. Seeks to improve own self by setting measurable and challenging goals					
3. Does not strive to improve own performance					
4. Strives to improve own performance					
5. Does not try to improve					
6. Seeks ways to do things better					
7. Has difficulty adapting to uncertain and changing conditions					
8. Adapts by smoothly juggling multiple demands					
9. Adapts by applying standard procedures flexibly					
10. Adapts overall strategy, goals, or projects to fit the situation					
11. Adapts to shifting priorities and rapid change					

12. Adapts overall strategy, goals, or projects to cope with unexpected events					
13. Gets impatient or shows frustration inappropriately					
14. Acts appropriately even in emotionally charged situations					
15. Remains calm in stressful situations					
16. Remains composed, even in trying moments					
17. Controls impulses appropriately in situations					
18. Loses composure when under stress					
19. Sees the positive in people, situations, and events more often than the negative					
20. Believes the future will be better than the past					
21. Views the future with hope					
22. Sees possibilities more than problems					
23. Sees opportunities more than threats					
24. Sees the positive side of a difficult situation					
25. Understands another person's motivation					
26. Understands others by listening attentively					
27. Does not understand subtle feelings of others					
28. Understands others by putting self into others' shoes					
29. Understands others' perspectives when they are different from own perspective					
30. Tries to resolve conflict instead of allowing it to fester					
31. Resolves conflict by de-escalating the emotions in a situation					
32. Allows conflict to fester					
33. Tries to resolve conflict by openly talking about disagreements with those involved					

34. Resolves conflict by bringing it into the open					
35. Provides on-going mentoring or coaching					
36. Provides feedback others find helpful for their development					
37. Personally, invests time and effort in developing others					
38. Coaches and mentors' others					
39. Does not spend time developing others					
40. Cares about others and their development					
41. Convinces others by getting support from key people					
42. Convinces others by using multiple approaches					
43. Convinces others by appealing to their self-interest					
44. Anticipates how others will respond when trying to convince them					
45. Convinces others by developing behind-the-scenes support					
46. Convinces others through discussion					
47. Leads by building pride in the group					
48. Leads by inspiring people					
49. Does not inspire followers					
50. Leads by bringing out the best in people					
51. Leads by articulating a compelling vision					
52. Does not cooperate with others					
53. Works well in teams by being supportive					
54. Works well in teams by encouraging cooperation					
55. Works well in teams by soliciting others' input					
56. Works well in teams by being respectful of others					
57. Works well in teams by encouraging participation of everyone present					

3- Interprofessional Teamwork Competency Inventory (IPTCI)

This inventory is to determine your self-perceived ability to apply relationship-building values and team dynamics principles in order to plan and deliver patient and population-centered care that is safe, timely, efficient, effective, and equitable.

Please rank your personal ability on the following statements from “not at all” to “great extent”. Please consider each statement independently. The inventory will not accept the same answer on every statement.

The extent to which I consistently:	Not at all	Small extent	Moderate extent	Large extent	Great extent
1- Can describe the process of team development and the roles and practices of effective teams					
2- Can develop consensus on the ethical principles to guide all aspects of patient care and teamwork					
3- Engage other health professionals in shared patient-centered problem-solving appropriate to the specific care situation					
4- Integrate the knowledge and experience of other professions to inform care decisions while respecting patient and community values and priorities/preferences for care					
5- Apply leadership practices that support collaborative practice and team effectiveness					
6- Engage others to constructively manage disagreements about values, roles, goals, and actions that arise among healthcare professionals and with patients and families					
The extent to which I consistently:	Not at all	Small extent	Moderate extent	Large extent	Great extent
7- Share accountability with other professions, patients, and communities for outcomes relevant to prevention and health care.					
8- Reflect on my own and team performance for personal and team performance improvement					
9- Use process improvement strategies to increase the effectiveness of interprofessional teamwork and team-based care					
10- Use available evidence to inform effective teamwork and team-based practices					
11- Perform effectively on teams and in different team roles in a variety of settings					

4- Interprofessional Communication Competency Inventory (IPCCI)

This inventory is to determine your self-perceived ability to communicate with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and treatment of disease.

Please rank your personal ability on the following statements from “not at all” to “great extent” . Please consider each statement independently. The inventory will not accept the same answer on every statement.

The extent to which I consistently:	Not at all	Small extent	Moderate extent	Large extent	Great extent
1-Choose effective communication tools and techniques, including information systems and communication technologies to facilitate discussions and interactions that enhance team function					
2-Organize and communicate information with patients, families, and healthcare team members in a form that is understandable, avoiding discipline-specific terminology when possible					
3-Express my knowledge and opinions to team members involved in patient care with confidence, clarity, and respect, working to ensure common understanding of information and treatment and care decisions					
4- Listen actively and encourage ideas and opinions of other team members					
The extent to which I consistently:	Not at all	Small extent	Moderate extent	Large extent	Great extent
5- Give timely, sensitive, and instructive feedback to others about their performance on the team, responding respectfully as a team member to feedback from others					
6- Use respectful language appropriate for a given difficult situation, crucial conversation, or interprofessional conflict					
7- Recognize how my uniqueness, including experience level, expertise, culture, power, and hierarchy within the healthcare team contributes to effective communication, conflict resolution, and positive interprofessional working relationships					
8- Communicate the importance of teamwork in patient-centered and community-focused care					

9- Interprofessional Leadership Competency Inventory (IPLCI)

Please indicate the extent to which you perceive your leadership within an interprofessional team that is focused on planning and delivery of safe, timely, efficient, effective, and equitable patient and population-centered care. Respond to each statement with the best match for your perspective by choosing one of the options ranging from not at all to great extent . Please consider each statement independently. There are no wrong or right answers.

The extent to which I consistently: Communication,	Not at all	Small extent	Moderate extent	Large extent	Great extent
1- Facilitate communication with others in a confident, assertive and respectful manner					
2- Facilitate communication of opinion and pertinent views on patient care with others					
3- Facilitate responding to requests in a timely manner					
4- Facilitate communication strategies (verbal & non-verbal) appropriately in a variety of situations					
5- Facilitate communicate in a logical and structured manner					
6- Lead in explanation discipline-specific terminology/jargon					
7- Facilitate strategies that are appropriate for communicating with individuals with impairments (e.g., hearing, cognitive)					

The extent to which I consistently: Collaboration,	Not at all	Small extent	Moderate extent	Large extent	Great extent
1-Lead in establishing collaborative relationships with others					
2-Lead in integration of information and perspectives from others in planning and providing patient/client care					
3-Leads in sharing information with other providers that is useful for the delivery of patient/client care					
4-Facilitate approval of the patient/client or designated decision-maker when information is shared					

The extent to which I consistently: Roles and Responsibility,	Not at all	Small extent	Moderate extent	Large extent	Great extent
1- Describe my own roles and responsibilities in a clear manner with the team/patient/family					
2- Promote and include the roles and responsibilities of all necessary health providers to optimize collaborative patient/client care					
3- Demonstrate professional judgment when assuming tasks or delegating tasks					
4- Accept responsibility for the failure of collaborative goals					
5- Accept responsibility for individual actions that impact the team					
6- Explain my scope of practice, code of ethics, standards and/or clinical guidelines in relation to collaborative patient-centered relationship					
7- Share evidence-based or best practice discipline specific knowledge with others					

The extent to which I consistently: Collaborative Patient/Client-Family Centered Approach.	Not at all	Small extent	Moderate extent	Large extent	Great extent
1- Seek input from patient/ client and family					
2- Promote and integrate patient's/ client's and family's circumstances, beliefs and values into care plans					
3- Share options and health care information with patients/clients and families					
4- Advocate for patient/client and family as partners in decision-making processes					

The extent to which I consistently: Functioning	Not at all	Small extent	Moderate extent	Large extent	Great extent
1- Demonstrate recognition of the relationship between team functioning and quality of care					
2- Demonstrate recognition of strategies that will improve team functioning					
3- Share leadership and alternate leadership with others when appropriate for the discipline involved					
4- Demonstrate recognition of myself as part of a team					
5- Contribute to interprofessional team discussions					

The extent to which I consistently: Conflict Management	Not at all	Small extent	Moderate extent	Large extent	Great extent
1- Seek the perspectives and opinions of others					
2- Seek clarification in a respectful manner when misunderstandings arise					
3- Use active listening when others are speaking					
4- Use appropriate conflict resolution strategies to manage and/or resolve conflict					

Thank you

References

- AACN. (2011). *The Essentials of Baccalaureate Education for Professional Nursing Practice*. American Association of Colleges of Nursing.
- AACN. (2012). *The Essentials of Master's Education for Advanced Practice Nursing*. American Association of Colleges of Nursing.
- Adamson, K., Loomis, C., Cadell, S., & Verweel, L. (2018). Interprofessional empathy as a precursor to interprofessional collaboration. *Journal of Interprofessional Care*, 32(3), 358-367. <https://doi.org/10.1080/13561820.2018.1458843>.
- Agency for Healthcare Research and Quality. (2023). *Situation, Background, Assessment, Recommendation (SBAR) exercise*. Agency for Healthcare Research and Quality. Retrieved from <https://www.ahrq.gov/evidencenow/tools/what-is-sbar.html>.
- Al-Ruzzieh, M. A., & Ayaad, O. (2021). Impact of nurses' emotional intelligence on the implementation of a professional practice model in cancer care. *British Journal of Nursing*, 30(19), 1110–1116. <https://doi.org/10.12968/bjon.2021.30.19.1110>.
- Almost, J., Wolff, A. C., Stewart- Pyne, A., McCormick, L. G., Strachan, D., & D'Souza, C. (2016). Managing and mitigating conflict in healthcare teams: An integrative review. *Journal of Advanced Nursing*, 72(7), 1490–1505. <https://doi.org/10.1111/jan.12903>
- Aulisio, M. C., et al. (2019). Interprofessional leadership development for health professions learners. *Education in the Health Professions*.
- Aulisio, M. C., May, T., Danis, M., & Torke, A. M. (2019). Ethics and emotional intelligence in clinical practice: A framework for enhancing ethical decision-making. *Journal of General Internal Medicine*, 34(2), 236-242.
- Bekkink, M., Farrell, S. E., & Takaesu, Y. (2018). The role of emotional intelligence in interprofessional collaboration. *Medical Teacher*, 40(1), 33-38. <https://doi.org/10.1080/0142159X.2018.145721>.
- Bikmoradi, A., Abdi, F., Hamidi, Y., et al. (2018). Correlation between Emotional Intelligence and Leadership Style of Nursing Managers in Educational Hospitals of Hamadan University of Medical Sciences. *Revista Publicando*, 5, 190-198.
- Bonazza, N. A., Cabell, G. H., Cheah, J. W., & Taylor, D. C. (2021). Effect of a novel healthcare leadership program on leadership and emotional intelligence. *Healthcare Management Forum*, 34(5), 272-277.
- Boyatzis, R. E. (2009). Competencies as a behavioral approach to emotional intelligence. *Journal of Management Development*, 28(9), 749-770.
- Boyatzis, R. E. (2018). The behavioral level of emotional intelligence and its measurement. *Frontiers in Psychology*, 9, Article 1438.
- Boyatzis, R. E., & Goleman, D. (2017). Emotional and social intelligence competencies: Cross-cultural implications. *Cross Cultural & Strategic Management*, 24(1), 92-103.
- Bryan, R. (2021). The influence of social intelligence on leadership effectiveness. *Journal of Leadership Studies*, 15(2), 45-53. <https://doi.org/10.1002/jls.21745>.
- Buşu, A. (2020). Emotional Intelligence as a Type of Cognitive Ability. *Revista De Ştiinţe Politice. Revue Des Sciences Politiques*, No. 6, 204-215.

- Cannity, K. M., Banerjee, S. C., Hichenberg, S., & others. (2021). Acceptability and efficacy of a communication skills training for nursing students: Building empathy and discussing complex situations. *Nurse Education in Practice*, 56,
- Carragher, J., & Gormley, K. (2016). Leadership and emotional intelligence in nursing and midwifery education and practice: A discussion paper. *Journal of Advanced Nursing*, 73(1), 85-96.
- Cherry, M. G., Fletcher, I., & O'Sullivan, H. (2014). Exploring the relationships among emotional intelligence, interpersonal skills, and attitudes toward teamwork in medical students. *BMC Medical Education*, 14(1), 1-9.
- Cherry, M. G., McCully, S. J., & McKie, K. (2014). A feasibility study on an ultra-brief intervention for improving freshmen's emotional intelligence. *Journal of Intelligence*, 9(2), 36-41.
- Clarke, N. (2010). Emotional intelligence abilities and their relationships with team processes. *Team Performance Management*
<https://doi.org/10.1108/13527591011028906>.
- Codier, E., & Codier, D. (2017). Could emotional intelligence make patients safer? Patient Safety Network.
- Cole, M. L., Cox, J. D., & Stavros, J. M. (2016). Building collaboration in teams through emotional intelligence: Mediation by SOAR (strengths, opportunities, aspirations, and results). *Journal of Management & Organization*, 25(02), 263–283.
<https://doi.org/10.1017/jmo.2016.43>.
- Cox, K. M. (2022). Impact of emotional intelligence on interprofessional teamwork, interprofessional communication, and interprofessional leadership (Master's thesis, University of Texas at Tyler). Scholar Works at UT Tyler Nursing Theses and Dissertations. <https://hdl.handle.net/10950/3811>
- Dyrbye, L. N., Satele, D. V., & West, C. P. (2021). Association of characteristics of the learning environment and US medical student burnout, empathy, and career regret. *JAMA Network Open*, 4(7)
- Emotional intelligence in Leadership: Why it's important. (2019, April 3). Business Insights Blog.<https://online.hbs.edu/blog/post/emotional-intelligence-in-leadership> Retrieved from <https://online.hbs.edu/blog/post/emotional-intelligence-in-leadership>
- Farina, E., Ornaghi, V., Pepe, A., & Fiorilli, C. (2020). High school student burnout: Is empathy a protective or risk factor? *Frontiers in*,
<https://doi.org/10.3389/fpsyg.2020.579508>.
- Foster, K., & Roche, M. (2014). Emotional intelligence in health care: Is it key to patient care? *Journal of Nursing Management*, 22(8), 931-936.
- Foronda, C., MacWilliams, B., & McArthur, E. (2016). Interprofessional communication in healthcare: An integrative review. *Nurse Education in Practice*.
- Fox, G., Gaboury, I., Chiochio, F., & Vachon, F. (2021). The challenges of interprofessional collaboration in health care: Insights from team science. *Journal of Interprofessional Care*, 35(4), 528-536.
<https://doi.org/10.1080/13561820.2021.1888495>
- George, J. (2000). Emotions and Leadership: The Role of Emotional Intelligence. <https://doi.org/10.1177/0018726700538001>.
- Goleman, D. (2000). Leadership that gets results. *Harvard Business Review*.
- Goleman, D. (2005). Emotional intelligence: Why it can matter more than IQ (78-95). New York, NY: Bantam Books.

- Gransberry, C. (2021). Social intelligence as a framework for nursing leadership development. *Nursing Management*, 28(2), 34-41. <https://doi.org/10.1097/01.NUMA.0000731459.24451.36>
- Heckemann, B., Schols, J. M. G. A., & Halfens, R. J. G. (2015). The effect of a team coaching intervention on teamwork and leadership in nursing teams: A pre-post test design. *Journal of Nursing Management*, 23(6), 844-852.
- Interprofessional Education Collaborative (IPEC). (2016). Core competencies for interprofessional collaborative practice: 2016 update. Washington, DC: Interprofessional Education Collaborative.
- Jiménez-Picón, N., Romero-Martín, M., Ponce-Blandón, J. A., Ramirez-Baena, L., Palomo-Lara, J. C., & Gómez-Salgado, J. (2021). The relationship between mindfulness and emotional intelligence as a protective factor for healthcare professionals: Systematic review. *International Journal of Environmental Research and Public Health*, 18(10), 5491.
- K Aldrup, B Carstensen, U Klusmann. (2022). Is empathy the key to effective teaching? A systematic review of its association with teacher-student interactions and student outcomes. *Educational Psychology Review*.
- Kang, E., Brom, H., Lasater, K., & McHugh, M. D. (2020). The impact of teamwork on healthcare delivery and patient outcomes: An analysis of the role of nursing. *Journal of Nursing Scholarship*, 52(4), 392-399. <https://doi.org/10.1111/jnu.12561>
- KJ Kim. (2020). Project-based learning approach to increase medical student empathy. *Medical Education Online*. Taylor & Francis.
- Khalili, A. (2012). The role of emotional intelligence in the workplace: A literature review. *International Journal of Management*, 29(3, part 2), 355-370.
- Koman, E., & Wolff, S. (2008). Emotional intelligence competencies in the team and team leader: A multi-level examination of the impact of emotional intelligence on team performance. *Journal of Management Development*, 55-75. <https://doi.org/10.1108/02621710810840767>.
- Lambert, M. J., Vanderbilt, A. A., & Papadimos, T. J. (2019). The role of emotional intelligence in medical education and practice. *International Journal of Medical Education*, 10, 12-20. <https://doi.org/10.5116/ijme.5c5c.d3e9>.
- Leonard, M. (2004). The human factor: the critical importance of effective teamwork and communication in providing safe care. *Quality and Safety in Health Care*, 13(suppl_1), i85-i90. <https://doi.org/10.1136/qshc.2004.010033>
- Lee, C., Bristow, M., & Wong, J. C. (2018). Emotional Intelligence and Teamwork Skills Among Undergraduate Engineering and Nursing Students: A Pilot Study. *Journal of Research in Interprofessional Practice and Education*, 8(1). <https://doi.org/10.22230/jripe.2018v8n1a260>
- Lee, P., & Doran, D. (2017). The role of interpersonal relations in healthcare team communication and patient safety: A proposed model of interpersonal process in teamwork. *Canadian Journal of Nursing Research*, 49(2), 75-93.
- Martina. M, Denisa. M, Mariana. S. (2015). Emotional Intelligence of Managers. *Procedia. Economics and Finance*. [https://doi.org/10.1016/S2212-5671\(15\)00939-9](https://doi.org/10.1016/S2212-5671(15)00939-9).
- Maqbool, S., Iqbal, A., & Imran, M. (2017). The Role of Emotional Intelligence in Project Management. *Project Management Journal*, 48(5), 22-32.
- Mayer, J. D., Caruso, D. R., Sitarenios, G., & Escobar, M. R. (2003). How many emotional intelligence abilities are there? An examination of four measures of emotional intelligence. *Personality and Individual Differences*, 219, 112468. <https://doi.org/10.1016/j.paid.2023.112468>.

- Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion*, 3(1), 97–105.
- Maximenio-Barreto, M. A., & Fabrício, D. M. (2020). Factors associated with levels of empathy among students and professionals in the health field: a systematic review. *SciELO Brasil*.
- Mazzaco, M. W., Rosen, M. A., Weaver, S. J., & Salas, E. (2009). Teamwork and patient safety: The link between interprofessional teamwork and healthcare delivery. *Journal of Interprofessional Care*, 23(4), 358-371. <https://doi.org/10.1080/13561820902921758>
- Menezes, P. Guraya, SY. Guraya, SS (2021). A systematic review of educational interventions and their impact on empathy and compassion of undergraduate medical students.
- Mull, J. (2023). The Role of Emotional Intelligence in Effective Leadership and Team Dynamics. Retrieved from <https://www.linkedin.com/pulse/role-emotional-intelligence-effective-leadership-team-james-mull>.
- O'Connor, P., Hill, A., Kaya, M., & Martin, B. (2019). The measurement of emotional intelligence: A critical review of the literature and recommendations for researchers and practitioners. *Frontiers in Psychology*, 10, Article 111.
- Parnell, J., & St. Onge, H. (2015). Emotional intelligence in nursing education: An integrative review. *Nurse Education Today*, 35(3), 510-517.
- Payne, R. A., & Patel, N. (2014). Barriers to interprofessional communication in healthcare: Solutions and strategies. *The Clinical Teacher*, 11(2), 100-105. <https://doi.org/10.1111/tct.12123>
- Petit dit Dariel, O., & Cristofalo, P. (2018). Overcoming challenges in interprofessional education through emotional intelligence. *Nurse Education Today*, 66, 144-149. <https://doi.org/10.1016/j.nedt.2018.04.004>
- Ponce-Blandón, J. A., et al. (2020). Associations of emotional intelligence and gratitude with empathy in medical students. *BMC Medical Education*, Springer.
- Raeissi, P., Zandian, H., Mirzarahimy, T., et al. (2019). Relationship between communication skills and emotional intelligence among nurses. *Nursing Management*. doi: 10.7748/nm.2019.e1820.
- Rathert, C., Williams, E. S., & Linhart, H. (2018). The fourth Quadruple Aim: Healthcare provider satisfaction and patient care quality. *Health Services Research*, 53(3), 2729-2745. <https://doi.org/10.1111/1475-6773.1291>
- Rosen, M. A., DiazGranados, D., Dietz, A. S., Benishek, L. E., Thompson, D., Pronovost, P. J., & Weaver, S. J. (2018). Teamwork in healthcare: Key discoveries enabling safer, high-quality care. *The American Psychologist*, 73(4), 433-445.
- Rosenstein, A. H., & Stark, D. (2015). Emotional intelligence: A critical tool to understand and improve behaviors that impact patient care. *Journal of Psychology and Clinical Psychiatry*, 2(5), 91-95.
- Salovey, P. Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9(3), 185–211.
- San Martín, A., & Delgado, M. A. (2018). Emotional intelligence and its relationship with team processes and task performance in innovative projects. *European Journal of Work and Organizational Psychology*, 27(3), 346-356.
- Sari, D., Taskiran, N., Baysal, E., & Acar, E. (2020). Effect of an aged simulation suit on nursing students' attitudes and empathy. *European Geriatric Medicine*, 11(4), 589-595
- Sfetcu, N. (2020). Emotions and emotional intelligence in organizations.

- Shi, M., & Du, T. (2020). Associations of emotional intelligence and gratitude with empathy in medical students. *BMC Medical Education*, 20, 411.
- Shrivastava, S., Martinez, J., Coletti, D. J., & Fornari, A. (2022). Interprofessional Leadership Development: Role of Emotional Intelligence and Communication Skills Training. MedEdPORTAL. https://doi.org/10.15766/mep_2374-8265.11247.
- Slater, C. E, Keefe, B, Jacobs, K. (2023). Impact of the Interprofessional Leadership in Healthcare Certificate on health professionals' collaboration and leadership abilities. *Journal of Interprofessional Education & Practice*, 32. <https://doi.org/10.1016/j.xjep.2023.100658>
- Solanki, S., & Alhalawat, K. (2023). Role of Emotional Intelligence in Leadership and Communication: An Empirical Study. *Journal of Informatics Education and Research*. Vol 3: 1526-4726. <https://doi.org/10.52783/jier.v3i2.50>.
- Spencer, M., & Brassey, J. (2017). Implicit bias and its role in healthcare outcomes. *Medical Education*, 51(10), 1020-1030. <https://doi.org/10.1111/medu.13443>
- Tiffin, P. A., & Paton, L. W. (2020). When I say... emotional intelligence. *Medical Education*, 54(7), 598-599.
- Terziyan, V., & Kaikova, O. (2015). The 'magic square': A roadmap towards emotional business intelligence. *Journal of Decision Systems*, 24(3), 255-272.
- Wilson, S. J., & Acker, T. M. (2020). Managing the emotional intelligence of teams: Leadership, performance, and future research. *Journal of Business and Management*, 26(3), 55-72.
- Wink, M. N., LaRusso, M. D., & Smith, R. L. (2021). Teacher empathy and students with problem behaviors: Examining teachers' perceptions, responses, relationships, and burnout. *Psychology in the Schools*, 58(7), 1189-1198.

تأثير الذكاء العاطفي على العمل الجماعي بين المهن، والتواصل، والقيادة بين طلاب التمريض

إعداد: ريم رجا يعقوب حزبون

إشراف: د. فريد غريب

الملخص

الخلفية: شهدت أهمية الذكاء العاطفي (EI) في البيئات الصحية اهتمامًا متزايدًا، خاصة فيما يتعلق بتأثيره على العمل الجماعي بين المهن، والتواصل، والقيادة بين طلبة التمريض. يُعرّف الذكاء العاطفي بأنه القدرة على التعرف على المشاعر وفهمها وإدارتها لدى الفرد والآخرين، وهو أمر ضروري لتعزيز التعاون الفعال وتحسين نتائج رعاية المرضى. وعلى الرغم من الاعتراف بأهمية الذكاء العاطفي، لا تزال هناك فجوة في البحث التجريبي الذي يدرس تأثيره في سياق تعليم التمريض والديناميكيات بين المهنيين.

هدف الدراسة: تهدف هذه الدراسة إلى استكشاف العلاقة بين الذكاء العاطفي والكفاءات الأساسية في العمل الجماعي بين المهن، والتواصل، والقيادة بين طلبة التمريض في الجامعات الفلسطينية. كما تسعى إلى تحديد كيفية مساهمة الذكاء العاطفي في تحسين الممارسات التعاونية والتواصل الفعال داخل فرق الرعاية الصحية.

المنهجية: أجريت دراسة مقطعية شملت طلبة التمريض في ثلاث جامعات فلسطينية. تم جمع البيانات من خلال استبيانات مصممة لقياس الوعي الذاتي، وإدارة الذات، وإدارة العلاقات، وتأثيراتها على ديناميكيات العمل الجماعي، والتواصل، والقيادة.

النتائج: تُظهر النتائج الأولية أن الذكاء العاطفي العالي يرتبط بتحسين العمل الجماعي والتواصل. كان متوسط درجة العمل الجماعي بين المهنيين $4.62 (\pm 0.3)$ (IPT)، ومتوسط درجة التواصل بين المهنيين (IPC) $4.37 (\pm 0.4)$. وفسرت الإدارة الذاتية (SM) والوعي الاجتماعي (SOA) نسبة 45% من التباين في إدارة العلاقات ($R^2 = 0.454$) (RM). (كما حصلت الطالبات على درجات أعلى في الإدارة الذاتية (4.11) ، ($p < .001$) والوعي الاجتماعي (4.24) ، ($p = .003$) مقارنةً بالطلاب. وسجلت القيادة بين المهنيين (IPL) درجة $4.45 (\pm 0.3)$ ، مما يشير إلى الحاجة إلى تدريب مستهدف على الذكاء العاطفي.

الاستنتاجات: تؤكد الدراسة على الدور الحاسم للذكاء العاطفي في تشكيل العلاقات بين المهنيين داخل التعليم الصحي. ويوصى بدمج برامج تدريب الذكاء العاطفي في المناهج التعليمية لتحسين العمل الجماعي، وتعزيز مهارات التواصل، وتطوير قدرات القيادة بين طلبة التمريض. تُعد هذه المبادرات ضرورية لخلق بيئة رعاية صحية داعمة تعطي الأولوية للرعاية المتمركزة حول المريض.

الكلمات المفتاحية: الذكاء العاطفي، العمل الجماعي بين المهن، التواصل، القيادة.