

## Emotional Intelligence among Health Sciences Students in Kuwait: Insights for Curriculum Enhancement

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### Abstract

Worldwide, healthcare systems and providers are encouraged to implement patient-centered interventions that address the diverse needs of patients. Achieving this approach requires healthcare professionals to be attentive, empathetic, and compassionate. Consequently, it is essential for healthcare providers to manage their own emotions effectively while understanding the feelings and motivations of others. This study aimed to evaluate the emotional intelligence of students enrolled in health sciences programs at Kuwait University. This cross-sectional study utilized a self-administered questionnaire based on Daniel Goleman's emotional intelligence framework. The survey measured five key components of emotional intelligence: self-awareness, self-regulation, motivation, empathy, and social skills. Data were analyzed using descriptive and inferential statistical methods with SPSS.

A total of 393 students completed the questionnaire. The highest emotional intelligence scores were reported among fifth-year students. No significant differences were observed between male and female students across most emotional intelligence components, except for motivation ( $p = 0.048$ ). Additionally, overall emotional intelligence scores did not significantly differ by gender. Students who had selected their faculty as their first-choice program demonstrated significantly higher empathy scores compared to those who had not ( $p = 0.037$ ). Among the five components of emotional intelligence, self-awareness, motivation, and empathy were identified as strengths for most students, whereas social skills were highlighted as an area needing improvement. Significant positive correlations were observed among all five emotional intelligence components ( $p < 0.001$ ). This study revealed that certain components of emotional intelligence among health sciences students need further enhancement. The findings support the inclusion of structured emotional intelligence development programs within the curriculum, particularly those that cultivate communication and interpersonal abilities. Strengthening these skills can better prepare students to meet the emotional and relational demands of future healthcare practice.

**Keywords:** Emotional intelligence, Kuwait, Pharmacy, Undergraduate, Dentistry, Medicine

### Introduction

The landscape of medical education is undergoing a profound shift, focusing on shaping healthcare professionals who are not only technically competent but also emotionally intelligent, empathetic, and compassionate. Emotional intelligence (EI) has emerged

as a crucial attribute for students pursuing careers in pharmacy, dentistry, medicine, and allied health, with some evidence suggesting that it may be a stronger predictor of professional success than traditional intelligence quotient (IQ) measures [1]. Originally conceptualized by Salovey and Mayer in 1989, EI is defined as the ability to perceive, understand, regulate, and utilize emotions in oneself and others, guiding thoughts and behaviors effectively [2, 3].

The Mayer-Salovey Four-Branch Model delineates EI into four interconnected abilities [3, 4]. The first, perceiving emotions, refers to identifying emotional cues in oneself and others, forming the foundation for emotional processing [4]. The second, using emotions,

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involves leveraging emotional states to enhance cognitive performance, such as problem-solving [4]. The third, understanding emotions, relates to recognizing emotional dynamics over time and interpreting emotional language [4]. The fourth, managing emotions, encompasses regulating one's own emotions and influencing the emotions of others [4]. While Goleman did not originate the EI concept, he introduced a framework emphasizing five constructs—self-awareness, self-regulation, motivation, empathy, and social skills—which have become widely applied in educational and professional settings [5].

Different approaches conceptualize EI either as an ability, assessed through performance measures, or as a trait, measured via self-reporting, reflecting the ability-based and trait-based models, respectively [3]. The mixed-model approach further extends EI by integrating positive personal qualities, including empathy and emotional self-awareness, into the emotional quotient (EQ) [3].

Evidence links higher EI with enhanced social competence, academic achievement, constructive interpersonal relationships, and better management of emotions [6]. Research among healthcare students has consistently demonstrated a positive association between EI and academic performance [7–11]. In clinical contexts, students with elevated EI levels exhibit stronger social skills, communicate more effectively with peers and patients, and manage stressful situations more successfully compared to students with lower EI, who often display interpersonal difficulties and maladaptive behaviors [12–14].

EI also plays a critical role in stress management, with high EI correlating with lower perceived stress levels [7, 10, 15]. Students with stronger EI capabilities are better equipped to handle academic and clinical pressures, improving their overall performance [15]. Stress is particularly elevated among students in clinical years or among those who did not choose their career path voluntarily [11].

Given the importance of emotional competence in healthcare practice, targeted educational interventions are essential. Incorporating EI-focused training into curricula requires active, personalized strategies emphasizing practical application and feedback [16]. Teaching methods such as reflective exercises, self-assessment, role-playing with simulated patients, inquiry-based learning, and modeling EI behaviors have been shown to enhance emotional skills [9, 12, 16–19].

Encouraging self-directed learning, periodic EI assessments, and trust-building activities further supports students' emotional growth and interpersonal effectiveness [7, 9].

Timing of interventions is crucial; improvements in EI are often more pronounced when training is introduced in later stages of education, particularly during final-year studies, and when delivered over shorter, intensive periods [12, 19]. Despite the recognized benefits, traditional healthcare curricula often emphasize technical knowledge over interpersonal skills, resulting in gaps in students' emotional and social competencies [14, 20].

Demographic factors can also influence EI outcomes. Female students frequently exhibit higher EI scores, possibly due to greater emotional expressiveness, whereas male students may score higher in specific domains such as self-awareness [9, 10, 14, 21]. Academic progression is positively associated with EI, with students in clinical years demonstrating stronger emotional competencies [10, 22]. Additionally, high-achieving students tend to possess higher EI levels compared to their peers with lower academic performance [9].

In Kuwait and the broader Middle East, research on EI among undergraduate healthcare students remains limited. Most existing studies examine single disciplines or specific EI models, leaving a gap in understanding EI across the full spectrum of healthcare programs in this region. Addressing this gap is critical to better prepare future healthcare professionals.

Kuwait University's Health Sciences Center (HSC) is the country's leading institution for healthcare education, comprising the Faculties of Medicine, Pharmacy, Dentistry, and Allied Health Sciences. The Faculty of Medicine offers programs preparing physicians with both clinical and research competencies. The Faculty of Pharmacy trains students in pharmaceutical and clinical practice, supporting medication management and healthcare delivery. The Faculty of Dentistry provides academic and clinical training for dental professionals, while the Faculty of Allied Health Sciences offers programs such as Medical Laboratory Sciences, Physical Therapy, Radiologic Sciences, Occupational Therapy, Health Informatics, and Nursing, addressing national healthcare workforce needs. As Kuwait University is the sole accredited provider of health sciences degrees, its graduates form the backbone of the country's healthcare system. While EI is not taught as a standalone subject, its principles are integrated into clinical education,

communication skills, and patient-centered care modules across faculties.

This study aims to evaluate the emotional intelligence of students at Kuwait University's HSC using a self-reported instrument. It also investigates the relationship between EI and student demographics, identifying areas that require targeted development to strengthen emotional competencies across healthcare disciplines.

## Materials and Methods

### *Study design*

This research utilized a cross-sectional design combining descriptive and correlational approaches. The primary data collection instrument was adapted from the emotional intelligence questionnaire developed by the NHS Leadership Academy, England, in 2014 [23]. The survey was delivered electronically and self-administered, structured around Daniel Goleman's emotional intelligence framework, which identifies five central dimensions: self-awareness, self-regulation, empathy, motivation, and social skills [5].

### *Questionnaire development and validation*

Because emotional intelligence is influenced by cultural and contextual factors, it was critical to employ a tool that was both reliable and culturally sensitive. The questionnaire was developed and validated following a systematic, stepwise process guided by Tsang *et al.* [24]. Initially, the research team obtained permission from the NHS Leadership Academy to use their EI instrument. The English questionnaire was then translated into Arabic by two independent, qualified translators. These translations were reviewed and harmonized into a single Arabic version.

A panel of multidisciplinary experts—including specialists in psychology, behavioral science, and business administration—examined the translated questionnaire to ensure accuracy, cultural appropriateness, and clarity. The panel also evaluated the instrument's face and content validity. Based on the panel's recommendations, revisions were made, followed by a back-translation conducted by a third independent translator. Comparison with the original English version confirmed that no significant discrepancies existed, validating the translation process. A pilot study was conducted with 67 third-year pharmacy students in Jordan to evaluate clarity, comprehension, and reliability. Cronbach's alpha was used to assess

internal consistency, with a threshold of 0.70 or higher considered acceptable. Confirmatory Factor Analysis (CFA) was also performed, leading to the removal of three items with factor loadings below 0.40. The final questionnaire consisted of 47 items assessing the five EI constructs: self-awareness, self-regulation, motivation, empathy, and social skills.

This thorough process ensured that the instrument was valid, reliable, and contextually appropriate. Using independent translators, expert reviews, back-translation, and pilot testing helped preserve the original tool's integrity while adapting it for an Arabic-speaking population. The multidisciplinary panel ensured that the questionnaire's language, cultural relevance, and content clarity were suitable for the target population.

In addition to EI assessment, the survey collected demographic and academic information, including participants' age, gender, year of study, and program of study. Participants were also asked whether their current program was their first-choice preference at the time of university enrollment.

### *Study population*

The study population included students enrolled at Kuwait University's Health Sciences Center, covering programs in pharmacy, medicine, dentistry, and allied health sciences.

### *Sample size and participant recruitment*

The study's sample size was determined using the Raosoft calculator, applying a 5% margin of error, a 95% confidence interval, and a 50% response distribution [25]. According to the 2023 enrollment data from the Student Affairs Department of each faculty within the Health Sciences Center (HSC), the total student population was 2,803. Based on these Figure, a minimum of 338 participants was required to ensure statistical validity. Recruitment of students was conducted through social media platforms, including WhatsApp, targeting those currently enrolled at the HSC.

### *Data collection and instrumentation*

Data were gathered between October and November 2023 using a two-part electronic survey. The first section captured participants' demographic characteristics, including age, gender, year of study, and program. The second section focused on evaluating the five key constructs of emotional intelligence (EI). Each of the forty-seven items was rated on a five-point Likert scale,

from 1 (“does not apply”) to 5 (“always applies”), allowing participants to self-assess the extent to which statements reflected their behavior or attitudes.

Individual scores were calculated for each EI construct. Scores between 35 and 50 were interpreted as strengths, 18 to 34 indicated areas that required attention, and 10 to 17 represented constructs that should be prioritized for development.

All analyses were conducted using SPSS version 28 (SPSS, Chicago, IL). Descriptive statistics—including frequencies, percentages, medians, and means—were used to summarize demographic data and EI scores. Relationships between total EI scores and demographic variables, as well as correlations among the EI constructs, were explored. Statistical significance was determined at  $p < 0.05$ . Data normality was assessed using the Shapiro–Wilk test and visual inspection of histograms. While total EI scores were normally distributed, individual EI constructs were not, and Pearson’s correlation coefficient was employed to examine associations between constructs.

#### *Ethical considerations*

Ethical approval was obtained from the Joint Health Sciences Center and the Ministry of Health Research Ethics Committee in Kuwait (VDR/EC-2022).

### Results and Discussion

A total of 393 students completed the survey. **Table 1** summarizes the demographic characteristics of the participants. Among them, 351 (89%) were female and 42 (11%) were male, with a median age of 21 years. The distribution of participants by faculty was as follows: pharmacy, 189 students (48.1%); medicine, 135 students (34.4%); allied health, 44 students (11.2%); and dentistry, 25 students (6.5%). This pattern reflects the enrollment capacity at Kuwait University, where medicine and allied health programs accommodate larger student cohorts, whereas pharmacy and dentistry have smaller intake numbers. Over half of the respondents (63.1%) indicated that their current faculty was their first-choice program.

Regarding emotional intelligence (EI) constructs, self-awareness was identified as the strongest area, with 325 students (82.7%) demonstrating high competence. Only 68 students (17.3%) showed a need for improvement in this domain, and none were classified as requiring prioritized development. Empathy was another construct

where all students scored above 10, indicating that it did not require urgent developmental focus. In contrast, social skills emerged as a priority area, with 32 students (8.1%) needing targeted training and development, as illustrated in **Figure 1**.

Self-regulation was the construct with the lowest proportion of students demonstrating strength (46 students, 11.7%) and the highest proportion showing a need for improvement (345 students, 87.7%), highlighting a significant requirement for training in emotional management among HSC students. Motivation was another construct with mixed results: approximately 60% of students (234) exhibited strong EI, whereas around 40% (157) indicated areas for enhancement, suggesting a relative weakness in this domain.

A total of 393 students participated in the survey. **Table 1** presents the demographic characteristics of the respondents. The majority were female (351, 89%), while males accounted for 42 (11%), and the median age was 21 years. By faculty, participants were distributed as follows: pharmacy, 189 students (48.1%); medicine, 135 students (34.4%); allied health, 44 students (11.2%); and dentistry, 25 students (6.5%). This distribution aligns with Kuwait University’s enrollment capacities, where medicine and allied health programs accommodate larger cohorts, whereas pharmacy and dentistry have smaller intake numbers. Over 60% of students (63.1%) reported that their current faculty was their first-choice program.

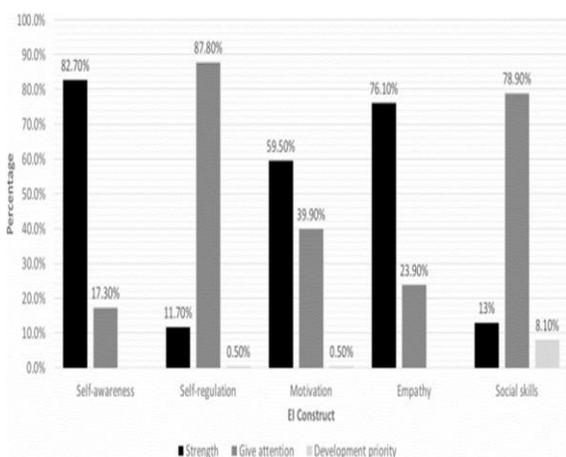
**Table 1.** Demographics of the participants

| Characteristic                                   | Values      |
|--|-------------|
| Age (years), median (IQR)                        | 21 (20–23)  |
| Gender, n (%)                                    |             |
| Female   | 351 (89%)   |
| Male   | 42 (11%)    |
| Faculty as participant's first preference, n (%) |             |
| Yes (first choice)                               | 248 (63.1%) |
| No (not first choice)                            | 145 (36.9%) |
| Faculty enrolled in, n (%)                       |             |
| Pharmacy   | 189 (48.1%) |
| Medicine   | 135 (34.4%) |
| Allied Health                                    | 44 (11.2%)  |
| Dentistry  | 25 (6.4%)   |
| Year of study, n (%)                             |             |
| First year                                       | 26 (6.6%)   |

|              |            |
|--------------|------------|
| Second year  | 85 (21.6%) |
| Third year   | 60 (15.3%) |
| Fourth year  | 75 (19.1%) |
| Fifth year   | 48 (12.2%) |
| Sixth year   | 42 (10.7%) |
| Seventh year | 57 (14.5%) |

The results indicated that self-awareness was the EI construct in which the largest proportion of students (325, 82.7%) demonstrated strength. Only 68 students (17.3%) required further development in this area, and none were classified as needing prioritized intervention. Similarly, empathy was another construct where all participants scored above 10, suggesting it does not require immediate developmental focus. In contrast, social skills emerged as a priority area, with 32 students (8.1%) needing targeted training, as illustrated in **Figure 1**.

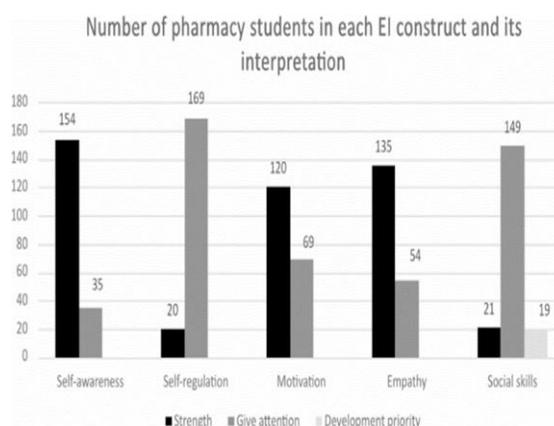
Self-regulation had the lowest proportion of students showing strength (46, 11.7%) and the highest proportion needing improvement (345, 87.7%), highlighting the critical need for training in emotional management among HSC students. Motivation showed mixed results: nearly 60% of students (234) displayed high EI, whereas around 40% (157) indicated areas for improvement, revealing this construct as a relative weakness.



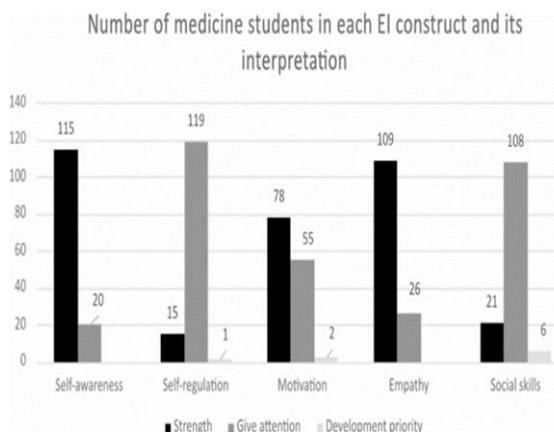
**Figure 1.** Percentage of students in each EI construct and its interpretation

A comparative analysis of EI scores across the different faculties revealed notable differences in areas of strength and those requiring development (**Figures 2–5**). Within the Faculty of Pharmacy, social skills emerged as a key area needing attention, with 19 students identified as requiring prioritized development. In contrast, self-

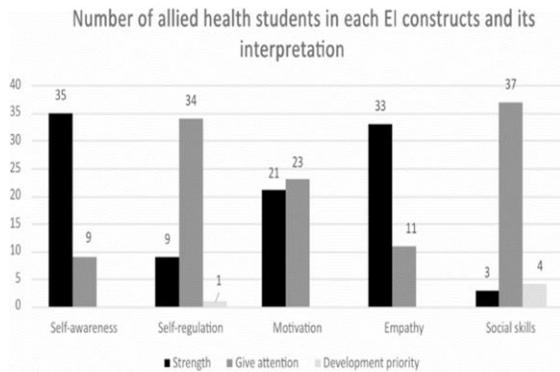
awareness was a prominent strength among pharmacy students, with 154 demonstrating high competence. A similar pattern was observed in the Faculties of Medicine, Allied Health, and Dentistry. In Medicine, 115 students showed strong self-awareness, and 109 excelled in empathy. Among Allied Health students, 35 and 33 demonstrated high levels in self-awareness and empathy, respectively, while in Dentistry, 21 students exhibited strong self-awareness and 22 excelled in empathy. These findings highlight that specific EI constructs vary in prominence across faculties, reflecting distinct areas of competence and developmental needs among students in different disciplines.



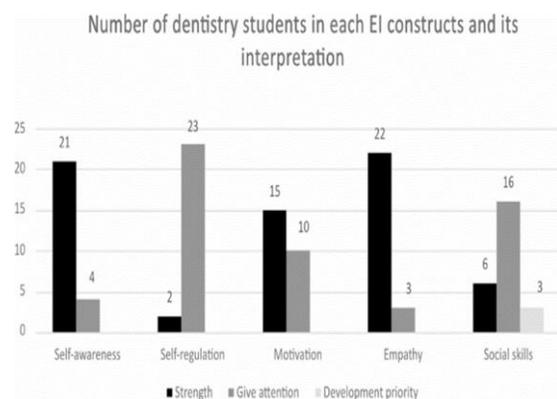
**Figure 2.** Distribution of pharmacy students across each emotional intelligence (EI) construct and corresponding interpretation



**Figure 3.** Distribution of medicine students across each emotional intelligence (EI) construct and corresponding interpretation



**Figure 4.** Distribution of allied health students across each emotional intelligence (EI) construct and corresponding interpretation



**Figure 5.** Distribution of dentistry students across each emotional intelligence (EI) construct and corresponding interpretation

**Table 2** presents the detailed emotional intelligence (EI) scores for each construct as well as the overall EI scores, together with associations involving various demographic factors. Although female participants achieved marginally higher total EI scores compared to their male counterparts (171.35 versus 168.21), an independent t-test indicated no statistically significant difference by gender in overall EI ( $p = 0.229$ ). Across all faculties, females demonstrated significantly higher scores in the motivation construct than males ( $p = 0.048$ ). Furthermore, students in dentistry ( $p = 0.008$ ) and those who were enrolled in their preferred faculty of choice ( $p = 0.037$ ) showed significantly greater emotional intelligence in the empathy construct. Finally, only students in their fifth year of study recorded significantly higher scores in the self-awareness construct relative to students in other years ( $p = 0.028$ ).

**Table 2.** Associations between emotional intelligence constructs and selected study variables among health sciences cluster (HSC) students

| Emotional Intelligence Construct / Variable | Self-regulation median (IQR) <sup>a</sup> | Self-awareness median (IQR) <sup>a</sup> | Empathy median (IQR) <sup>a</sup> | Motivation median (IQR) <sup>a</sup> | Total EI mean ( $\pm$ SD) <sup>b</sup> | Social skills median (IQR) <sup>a</sup> |
|---|---|--|-----------------------------------|--------------------------------------|--|---|
| <b>Faculty</b>                              |   |  |                                   |                                      |  |   |
| Pharmacy                                    | 29 (6)                                    | 40 (8)                                   | 39 (8)                            | 36 (8)                               | 169.79 (20.23)                         | 28 (9)                                  |
| Medicine                                    | 29 (5)                                    | 40 (9)                                   | 40 (8)                            | 37 (12)                              | 172.67 (21.02)                         | 28 (10)                                 |
| Allied health                               | 28 (6)                                    | 39.5 (6)                                 | 37.5 (8)                          | 34 (11)                              | 167.91 (17.83)                         | 26.5 (7)                                |
| Dentistry                                   | 30 (6)                                    | 39 (9)                                   | 44 (9)                            | 35 (10)                              | 176.8 (20.78)                          | 30 (12)                                 |
| p-value (test) <sup>c</sup>                 | 0.6 <sup>f</sup>                          | 0.372 <sup>f</sup>                       | 0.008 <sup>f</sup>                | 0.908 <sup>f</sup>                   | 0.201 <sup>g</sup>                     | 0.224 <sup>f</sup>                      |
| <b>Gender</b>                               |   |  |                                   |                                      |  |   |
| Female                                      | 29 (6)                                    | 40 (8)                                   | 39 (9)                            | 36 (10)                              | 171.35 (20.56)                         | 28 (9)                                  |
| Male  | 29 (6)                                    | 40 (7)                                   | 39 (6)                            | 34 (11)                              | 168.21 (18.33)                         | 27 (7)                                  |
| p-value (test) <sup>c</sup>                 | 0.704 <sup>d</sup>                        | 0.842 <sup>d</sup>                       | 0.624 <sup>d</sup>                | 0.048 <sup>d</sup>                   | 0.229 <sup>e</sup>                     | 0.294 <sup>d</sup>                      |
| <b>Year of study</b>                        |   |  |                                   |                                      |  |   |
| First year                                  | 30.5 (9)                                  | 40 (10)                                  | 40 (10)                           | 37.5 (13)                            | 175 (28.15)                            | 28.5 (12)                               |

|                                |                    |                    |                    |                    |                    |                    |
|--------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Second year                    | 29 (6)             | 39 (8)             | 38 (10)            | 35 (12)            | 168.51 (19.9)      | 28 (10)            |
| Third year                     | 28 (6)             | 38.5 (7)           | 39 (11)            | 36.5 (11)          | 168.37 (20.85)     | 27.5 (7)           |
| Fourth year                    | 29 (5)             | 40 (8)             | 40 (9)             | 35 (10)            | 168.63 (20.41)     | 27 (9)             |
| Fifth year                     | 30 (6)             | 42.5 (8)           | 39 (8)             | 36.5 (10)          | 177.15 (16.16)     | 30 (9)             |
| Sixth year                     | 29 (5)             | 40 (8)             | 37.5 (11)          | 36 (8)             | 171.33 (20.39)     | 26 (11)            |
| Seventh year                   | 29 (6)             | 40 (5)             | 40 (5)             | 38 (10)            | 173.46 (18.54)     | 28 (9)             |
| p-value (test) <sup>c</sup>    | 0.284 <sup>f</sup> | 0.028 <sup>f</sup> | 0.276 <sup>f</sup> | 0.286 <sup>f</sup> | 0.144 <sup>g</sup> | 0.533 <sup>f</sup> |
| <b>Faculty as first choice</b> |                    |                    |                    |                    |                    |                    |
| First choice                   | 29 (6)             | 40 (8)             | 40 (9)             | 36.5 (11)          | 172.1 (21.22)      | 27.5 (9)           |
| Not first choice               | 29 (6)             | 39 (7)             | 38 (8)             | 36 (8)             | 169.15 (18.66)     | 28 (9)             |
| p-value (test) <sup>c</sup>    | 0.839 <sup>d</sup> | 0.089 <sup>d</sup> | 0.037 <sup>d</sup> | 0.506 <sup>d</sup> | 0.111 <sup>e</sup> | 0.46 <sup>d</sup>  |

<sup>a</sup> The Shapiro-Wilk test indicated that the scores for each individual emotional intelligence (EI) domain were non-normally distributed.

<sup>b</sup> Overall emotional intelligence scores followed a normal distribution.

<sup>c</sup> The threshold for statistical significance was  $p < 0.05$ .

<sup>d</sup> Mann-Whitney U test.

<sup>e</sup> Independent t-test.

<sup>f</sup> Kruskal-Wallis test.

<sup>g</sup> One-way ANOVA test.

Associations between the composite emotional intelligence score and selected variables—namely age, gender, enrollment in the preferred faculty, and academic year—were investigated. Results indicated no statistically significant correlations between the total EI score and any of these variables.

**Table 3** displays the interrelationships among the different EI domains, revealing primarily moderate positive correlations. Notably weaker (negligible) associations were found between the social skills domain and both self-awareness and motivation domains.

**Table 3.** Inter-domain correlations for emotional intelligence components

| Emotional Intelligence Domain | Self-Regulation | Self-Awareness | Empathy | Motivation | Social Skills |
|-------------------------------|-----------------|----------------|---------|------------|---------------|
| <b>Self-Regulation</b>        | 1               |                | 0.369*  | 0.355*     | 0.357*        |
| <b>Self-Awareness</b>         | 0.371*          | 1              | 0.439*  | 0.364*     | 0.270*        |
| <b>Motivation</b>             |                 |                | 0.323*  | 1          | 0.298*        |
| <b>Social Skills</b>          |                 |                |         |            | 1             |
| <b>Empathy</b>                |                 |                | 1       |            | 0.447*        |

\*Interpretation of Pearson correlation coefficients:

• <0.3: negligible correlation o Values between

• 0.3 and 0.5: moderate correlation

• o All pairwise correlations between domains achieved statistical significance ( $p < 0.001$ ).

Demographic factors have been recognized as influential in shaping emotional intelligence (EI) [22]. In our study, total EI scores did not differ significantly between male and female students, consistent with some previous research [15, 26]. However, earlier studies have reported conflicting findings, with some indicating higher EI among females [9–11, 27] and others favoring males [28]. These discrepancies may stem from differences in sample size, population characteristics, or sociocultural contexts. Notably, in this study, female students scored higher specifically in motivation, while total EI scores

remained comparable between genders. This observation may partly reflect the gender imbalance in our sample, where females comprised nearly 90% of participants. Nonetheless, this distribution aligns with the actual gender composition of the Health Sciences Center (HSC) at Kuwait University, where females predominate in most faculties.

Fifth-year students exhibited the highest EI scores, coinciding with their transition from preclinical to clinical education. This group also scored significantly higher in self-awareness, suggesting enhanced capacity

for recognizing and managing their emotions during decision-making processes. Furthermore, students who had selected their current faculty as their first-choice program showed slightly higher overall EI, particularly in empathy. This finding aligns with previous research linking satisfaction with academic choice to elevated EI [10].

The analysis also revealed positive intercorrelations among EI constructs, consistent with prior studies [26, 27]. However, it is worth noting that earlier research employed different theoretical models of EI, which may include alternative constructs [26, 27].

Our findings emphasize the growing recognition of EI as a critical component in healthcare education, impacting both academic performance and professional competence. Among the HSC students, self-awareness emerged as the strongest construct, reflecting proficiency in emotional recognition, self-assessment, and confidence. Conversely, social skills were consistently the weakest domain, indicating challenges in communication, teamwork, leadership, and conflict resolution.

Evidence from the literature suggests that targeted interventions can effectively enhance EI. Structured courses covering the definition, importance, and five constructs of EI, along with their associated competencies, have been shown to be effective [17]. Role-playing exercises with simulated patients provide practical opportunities to strengthen social-emotional competencies, enabling students to navigate patient interactions actively [12, 19, 20]. Additionally, periodic EI assessments allow educators to tailor interventions and monitor progress over time [7].

#### *Strengths and limitations*

This study has several limitations. First, the findings are specific to the cultural and educational context of Kuwait University, which may limit their generalizability. Second, some faculties had relatively small sample sizes, potentially affecting representativeness, although the inclusion of pharmacy, medicine, dentistry, and allied health provides valuable multidisciplinary insight. Third, the cross-sectional design captures only a snapshot in time, preventing longitudinal analysis of EI development. Fourth, the reliance on self-reported data may introduce response bias despite measures taken to ensure reliability and validity. Lastly, the strong female predominance in the sample may have influenced the observed lack of gender differences in overall EI.

Despite these limitations, this research represents the first comprehensive assessment of EI among healthcare students in Kuwait. Its findings provide a foundation for designing training programs aimed at strengthening interpersonal and intrapersonal skills and may inform policies for student recruitment and curriculum development in the region.

#### **Conclusion**

This study highlights notable patterns in EI across different healthcare faculties. Most students exhibited strengths in self-awareness, motivation, and empathy, whereas social skills were identified as a key developmental area. Gender did not significantly affect total EI scores, though female students demonstrated higher motivation. Students who prioritized their first-choice faculty showed elevated empathy scores. These results underline the importance of integrating EI-focused training into health sciences curricula, particularly to enhance students' interpersonal and intrapersonal abilities, thereby better preparing them for professional practice.

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**Conflict of Interest:** None

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**Ethics Statement:** None

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