

## Emotional Intelligence in Nursing Students

*Inteligencia emocional en estudiantes de enfermería*

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**Abstract:** Emotional Intelligence (EI) stands as an essential element for establishing and maintaining quality interpersonal relationships and developing an adequate therapeutic relationship (Schutte, Malouff, Bobik, & Coston, 2001). In nurses, sensitivity to patients' moods and emotions is fundamental, it is necessary to understand the meaning of the patient's needs and should not be considered in isolation from actions and thoughts (Freshwater & Stickley, 2004). The study presented here is of particular interest as it aims to provide a first approach to the study of differences in EI levels of 1417 nursing students, considering their sex. The Trait Meta-Mood Scale -24 (TMMS-24) was used to measure EI. This study's data indicate that women present higher levels of emotional attention than men, while the latter present higher levels of emotional clarity than women. However, these sex differences are not observed in the dimension of emotional repair. It would be interesting in future research to develop an intervention plan at the care level to improve the levels of emotional intelligence in nursing students and, therefore, in future nurses, taking into account the differences observed in the different dimensions according to sex.

**Resumen:** La Inteligencia Emocional (IE) se erige como un elemento esencial para establecer y mantener relaciones interpersonales de calidad y desarrollar una relación terapéutica adecuada (Schutte, Malouff, Bobik, & Coston, 2001). En las enfermeras, la sensibilidad a los estados de ánimo y las emociones de los pacientes es fundamental, es necesario comprender el significado de las necesidades del paciente y no debe considerarse de forma aislada de las acciones y los pensamientos (Freshwater & Stickley, 2004). El estudio que se presenta aquí es de particular interés, ya que tiene por objeto proporcionar un primer enfoque del estudio de las diferencias en los niveles de IE de 1417 estudiantes de enfermería, teniendo en cuenta su sexo. Para medir la IE se utilizó la Trait Meta-Mood Scale -24 (TMMS-24). Los datos de este estudio indican que las mujeres presentan niveles más altos de atención emocional que los hombres, mientras que estos últimos presentan niveles más altos de claridad emocional que las mujeres. Sin embargo, estas diferencias en función del sexo no se observan en la dimensión de reparación emocional. Sería interesante en futuras investigaciones desarrollar un plan de intervención a nivel de cuidados para mejorar los niveles de inteligencia emocional en los estudiantes de enfermería y, por lo tanto, en las futuras enfermeras, teniendo en cuenta las diferencias observadas en las diferentes dimensiones según el sexo.

**Keywords:** Emotional intelligence, TMMS-24, levels of emotional intelligence, nursing students, sex

**Palabras clave:** Inteligencia emocional, TMMS-24, niveles de inteligencia emocional, estudiantes de enfermería, sexo

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## **Introduction**

In the past decades, researchers have directed their interest towards those aspects of intelligence more linked to emotions and feelings, raising the idea that a person's Emotional Intelligence (EI) may be a better predictor of work and social efficiency than cognitive intelligence (Reeves, 2005). Emotion feeds and informs the rational mind, with the emotional mind providing energy to the rational part to order the emotions (Goleman, 1996). According to this author, the feeling is previous to the thought, reason why the emotion is generated before the reason, being this last one the one that would elaborate the most suitable answer. Thus, the study of emotions is fundamental to understanding the individual's relationship with his environment and behaviors (Goleman, 1996).

The ability to manage one's own emotions as well as to interpret the emotions of others, EI, is considered fundamental in care settings since it helps nurses combat stress, which contributes positively to both their own and the patient's health (Akerjordet & Severinsson, 2007). Some studies, such as Codier et al. (2010) measured EI in clinical practice and found positive relationships between EI and performance, increased organizational engagement, and professional job satisfaction. Along the same lines, some studies relate EI to reduced burnout, improved performance, and job retention (Rosete & Ciarrochi, 2005).

From this perspective, EI stands as an essential element for establishing and maintaining

quality interpersonal relationships and developing an adequate therapeutic relationship (Schutte, Malouff, Bobik, & Coston, 2001). In nurses, sensitivity to patients' moods and emotions is fundamental, it is necessary to understand the meaning of the patient's needs and should not be considered in isolation from actions and thoughts (Freshwater & Stickley, 2004). In general, it is important to note that emotional response tends to be different in men and women. Generally speaking, women tend to pay more attention to their emotions and are therefore more receptive to emotional support measures, whereas men tend to pay less attention to them (Hojat, Gonnella, & Xu, 1995; Ickes, Gesn, & Graham, 2000). These aspects are of great relevance to nursing since it is a highly feminine profession (Grover, 2005). This ability of women to pay more considerable attention to emotions is an essential resource for nurses as it allows for greater awareness of their own and others' feelings, which is related to EI. As a result, it can be said that EI is a critical component of effective communication, and this relationship is influenced by sex, with the support provided by women being more significant (Christenfeld & Gerin, 2000).

The concept of Emotional Intelligence was first described in 1990 by Salovey and Mayer and had its roots in previous research on "social intelligence" with Thorndike (1920). However, its worldwide diffusion originates from the work of Daniel Goleman (1996) entitled "Emotional Intelligence." In the last two decades, EI's concept

has gained great popularity, generating considerable interest, both in society and in the professional and academic spheres. This interest has promoted the emergence of numerous models to explain the nature of relationships and their effectiveness in different contexts (Beauvais, Brady, O'Shea, & Griffin, 2011). The theoretical models of emotional intelligence with the most scientific support are three: Mayer and Salovey (1990), Goleman (1996), and Baron (2006). Salovey and Mayer (1990) proposed the "ability model," where EI is related to cognitive ability, so emotions are sources of information that we use to make decisions.

In contrast, Baron presents a "trait/personality model," which suggests that EI is related to personality and is separate from cognitive intelligence. Goleman, on the other hand, proposes a "mixed ability" model, claiming that EI refers to both personality and cognitive ability. Mayer and Salovey (1990) define EI as the ability to recognize, understand, and regulate one's own emotions and those of others, discriminate between them, and use it to guide thoughts and actions. This definition assumes that EI is an ability that comprises three processes: perception, understanding, and regulation of emotions. Of the three EI models previously mentioned for our study, we will use Mayer and Salovey's habit model, since it offers us a more practical and simple view, considering EI as an intelligence based on the adaptive use of emotions and their application to our thinking, that is, it allows us to use emotions for

more effective reasoning (Berrocal & Pacheco, 2005). It is also accompanied by measuring instruments with appropriate psychometric properties that have previously been used in the nursing field.

These findings suggest an entirely new approach to improving nursing work environments, concerning the quality and safety of patient care (Potter et al., 2010) and the physical and emotional well-being of nurses (Cummings, Estabrooks, & Hayduk, 2005; Humpel, Caputi, & Martin, 2001; Montes-Berges & Augusto Landa, 2007). Despite these findings and the importance of studying EI in nurses and nursing students, studies are limited and, in general, we can summarize the types of research carried out from two perspectives, a more theoretical perspective that corresponds to the initial phases of disciplinary research and a more empirical perspective that corresponds to the current situation of the discipline. In general, the studies prove that there are differences in EI between men and women, with women showing greater attention and focus on their feelings (Fernández-Berrocal, Extremera, & Ramos, 2004; Limonero, Tomás-Sabado, Fernández-Castro, & Gómez-Benito, 2004).

In this sense, the study of emotional intelligence is relevant, and more so in nurses (Caruso, Mayer & Salovey, 2008), who continuously interact with patients and families, as well as in students, future nurses. Nurses must have the ability to control their own emotions, detect, interpret,

and correctly manage others' emotions to identify the other person's needs and provide individualized attention (Augusto Landa, Lopez-Zafra, Berrios Martos, & Aguilar-Luzon, 2006).

Different measurement instruments have been used (Conte, 2005): Emotional Competence Inventory (ECI), Bar-On Emotional Quotient Inventory (EQ-i), Multifactor Emotional Intelligence Scale (MEIS) and MSCEIT V.2, the Trait Meta-Mood Scale 48 (TMMS-48) and its reduced version, the TMMS-24. In the present study, it was considered appropriate to use in our study the TMMS-24, Spanish adaptation of Fernandez-Berrocal, Extremera and Ramos, (2004) because it presents adequate psychometric properties and has been used previously in the nursing context (Montes-Berges & Augusto Landa, 2007; Aradilla-Herrero, Tomás-Sábado, & Gómez-Benito, 2012). This instrument has been applied in different nursing contexts in Spain, but the sample size is larger than many of the studies developed in the area. Hence, the study presented here is of particular interest as it aims to provide a first approach to the study of differences in EI levels in nursing students, considering their sex.

Given the importance of EI in the nursing field and the possible differences according to sex, as well as the consequences that it can have on the health of the nurses, nursing students, the patients, and their families, in this article we will study the differences in the levels of EI of a sample of Spanish nursing students according to sex, taking into consideration the dimensions of the TMMS-24.

## **Method**

### *Participants*

The study sample corresponds to 1417 nursing students from 5 universities in Valencia (Spain). The age of the participants ranges from 18 to 55 years ( $\bar{X}$ = 21.80, SD=5.34). According to the distribution by sex, 83.8% are women (N=1187), and 16.2% are men (N=230). According to the course of study, the distribution observed is as follows: 29.6% first, 25% second, 23.8% third, and finally, 21.6% fourth.

### *Instruments*

An ad-hoc questionnaire was used to collect socio-demographic data.

The Trait Meta-Mood Scale Trait (TMMS-24) was used to measure EI. It is a 24-item scale whose Spanish version and adaptation to that context was made by Fernandez-Berrocal et al. (2004). This scale evaluates through 24 items, the levels of EI. It presents three dimensions; emotional attention, (8 items) ( $\alpha$ =.90) includes the beliefs or perceptions that the subjects have about their capacity of attention and valuation of their feelings, emotional clarity, (8 items) ( $\alpha$ =.90) includes the understanding and analysis of emotions and emotional repair, (8 items) ( $\alpha$ =.86) is the ability to control or regulate one's own emotions (positive or negative) and those of others. All of Cronbach's alphas were above .85.

In our study, both the questionnaire's overall reliability and the individual dimensions' reliability showed acceptable coefficients. A 5-point Likert scale was used to measure the results (1 strongly disagree, and 5 strongly agree).

*Procedure*

This study was previously approved by the Human Research Ethics Committee of one of the participant universities. Nursing students were informed about the study, and those who signed the informed consent were eventually included. The completion of the instrument took approximately 10 minutes.

*Data analysis*

For the analysis of the data, the primary descriptors of the dimensions of the TMMS-24 were calculated, and the differences in means according to sex were analyzed using SPSS version 24.

**Results**

Table 1 shows the participants' responses with the main descriptive analyses. As for the dimensions of the TMMS-24 scale, they show similar average assessments, with emotional repair ( $\bar{X}$ =3.70; DT=.74) and emotional attention ( $\bar{X}$ =3.63; DT=.75) standing out, followed by emotional clarity ( $\bar{X}$ =3.54; DT=.75).

Table 1. Main descriptive analysis

TMMS24	Range	M	SD
Factor 1- EA	1-10	3.63	.75
Factor 2- EC	1-5	3.54	.74
Factor 3- ER	1-9	3.70	.74

*Note:* Factor 1- Emotional Attention; Factor 2- Emotional Clarity; Factor 3- Emotional Repair.

Table 2 shows the analysis results of the comparison of means, according to sex, of the dimensions of the original TMMS-24 scale. The

data show statistically significant differences between men and women in the dimensions of emotional attention ( $p < .01$ ) and emotional clarity ( $p < .05$ ); the scores being higher for women in the case of emotional attention, and higher for men in the case of emotional clarity. However, no statistically significant differences were observed in the emotional repair dimension according to sex. Table 2. Comparison of means of the dimensions of the original TMMS-24 scale according to sex

Items	Women $\bar{X}$ (SD)	Men $\bar{X}$ (SD)	T	p
TMMS24				
Factor 1- EA	3.68 (.74)	3.44 (.73)	4.47	.00**
Factor 2- EC	3.52 (.75)	3.64 (.70)	-2.35	.02*
Factor 3- ER	3.69 (.75)	3.73 (.70)	-.85	.40

*Note.* Factor 1- Emotional Attention; Factor 2- Emotional Clarity; Factor 3- Emotional Repair, \* $p \leq .05$ ; \*\* $p \leq .01$ ; ( $\bar{X}$ = Mean; SD= Standard deviation).

**Discussion**

EI is considered a core competency in nurses, given the benefits to both the patient and the nurses themselves (Potter et al., 2010). Therefore, it is a fundamental element to take into account from the training stages; that is, in nursing students (Cerit & Beser, 2014; Choi, Song, & Oh, 2015).

In terms of EI measured by the TMMS-24 Spanish version, the results of this research show medium-high levels, highlighting the dimension

of emotional repair and emotional attention, followed by emotional clarity. These results suggest that the emotional clarity dimension is the one that presents the lowest levels, an aspect that should be highlighted since, as indicated in studies such as Gohm's (2003), levels of emotional clarity are closely related to those of emotional efficiency in general. These results are in line with other published studies that used the same instrument but in a group of nurses already in service, where they presented adequate levels in the three dimensions, emotional attention, clarity and reparation (Augusto Landa et al., 2006; Limonero et al., 2004).

Concerning the differences in EI levels according to sex, the data from this study indicate that women present higher levels of emotional attention than men, while the latter present higher levels of emotional clarity than women. However, these sex differences are not observed in the dimension of emotional repair. These results are in line with research carried out with nurses, which indicates that there are differences in EI between men and women, with women showing greater attention and focus on their feelings (Fernandez-Berrocal et al., 2004; van Dusseldorp et al., 2011; Thayer, Rossy, Ruiz-Padial, & Johnsen, 2003). This study's results are especially relevant when considering the large number of participants who took part in it. While it is true that the vast majority of participants are women, which is quite common in the nursing context (Chan, Creedy, Chua, & Lim, 2011), it is also true that the large sample size has led to a representative number of male

nursing students completed the questionnaire. This large sample size is one of the strengths of this study, as it gives strength to the data found.

Although the EI levels of our study are considered medium-high, it would be interesting in future research to develop an intervention plan at the care level to improve the levels of emotional intelligence in nursing students and, therefore, in future nurses, taking into account the differences observed in the different dimensions according to sex.

Finally, to highlight that training in EI skills will result in better-trained nurses (Rchaidia, Dierckx de Casterlé, De Blaeser, & Gastmans, 2009) and with higher leadership skills (Crosby & Shields, 2010), which will contribute to improving the quality of care.

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