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The Role of Emotional Intelligence in Health Care Professionals Burnout

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Abstract: The purpose of this study is to explore the relationship between Emotional Intelligence (EI) and burnout in health care professionals. More specifically, this survey has the purpose of demonstrating the role of EI as a protective factor against the risk of burnout. Health professionals (doctors, nurses, and other caregivers) composed the sample. Data, collected during professional training, provided 148 employees. Major results of this survey underline the relationship between EI and burnout. As we expected, there is a negative and significant correlation between burnout and Emotional Intelligence. Moreover, burnout varies depending on length of service: burnout increases between 5 and 10 years of experience and decreases over 10 years. Indeed, burnout is differently expressed amongst healthcare professionals: more specifically, Psycho-physical exhaustion, Detriment of the relationships and Burnout (total score) has an impact on physician (doctors) more than other investigated health professionals. These findings seem to suggest the opportunity to improve Emotional Intelligence abilities through specific training programs, useful to promote the ability to cope with stress and to enrich the relationships in the workplace.

Keywords: Burnout; Emotional intelligence; Health care professionals; Nurses; Doctors; Absenteeism.

1. Introduction

The ability to manage emotions influences the success or failure relationships of all types [1, 2]. The consequences of emotional states in the workplace, both behavioral and attitudinal, have substantial significance for individuals, groups, and society [3]. While positive emotions helps employees obtain favorable outcomes at work¹ [4-6], negative emotions (such as fear, anger, stress, hostility, sadness, and guilt) increase the predictability of workplace deviance [7], occupational stress and turnover intention (as employee's intention to voluntarily change jobs or companies), and obstacles productivity and company's success.

In sum, Emotional Intelligence (EI) has generally considered a key competence for helping professionals, because it enhances their resilience and psychological wellbeing [8] and protects against burnout [9, 10].

More specifically, EI helps employees manage their own emotional reactions and those of others and recognizes the potential impact of their personal emotional states on their problem solving and decision-making processes [11].

In order to contribute to knowledge in this field, the study has the aim to investigate the relationship among EI and burnout. More specifically, this study has the purpose of demonstrating the role of EI as a protective factor against the risk of burnout, because it allows health care professionals less likely to suffer burn out.

1.1. Emotional Intelligence (EI) As a Person's Ability to Cope with Environmental Demands and Pressures

Defined as "an array of non-cognitive skills, capabilities and competencies that influence a person's ability to cope with environmental demands and pressures" [12], EI links emotion and cognition with the aim of improving human interactions.

The construct was initially proposed by Salovey and Mayer [13], but it was Goleman [1] who has popularized the EI as "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for

¹ Including achievement, job enrichment and higher quality social context

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managing emotions well in ourselves and in our relationships” Goleman [2]. Emotional Intelligence allows us to think more creatively and use our emotion to solve problems. Indeed, this feature appears to be an important set of psychological abilities related to life success. Empathy and communication skills as well as social and leadership skills will be central to success in life, personal relationship, and at workplace.

Employees with a high level of EI have self-awareness that helps them understand co-workers and meet deadlines, they are not bothered by client criticism, and they remain focused on outcomes, rather than feeling offended [14]. Furthermore, the ability to manage feelings and handle stress is another aspect of Emotional important for success [2].

Indeed, employees with a high level of EI experience low level of stress, anxiety, and depression [5], use positive thinking [15] and effective coping strategies [16, 17], obtaining desirable work outcomes [2].

Moreover, the level of EI can predict or elaborate ways of coping (*effective and ineffective*) as life demands and stresses change. More specifically, in Mikolajczak, *et al.* [18], EI was associated positively with adaptive coping styles and negatively with maladaptive coping styles: it also means that EI provides people with better understanding of their reactions to various sources of stress and guidance in coping process [19].

1.2. Burnout As a Person’s Disability to Cope with Environmental Demands and Pressures

Burnout is defined as a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment in response to chronic interpersonal stressors on the job [20-22]. Further, exhaustion or depersonalization interfere with effectiveness [22], enhancing absenteeism [23, 24], staff turnover and low job performance [25].

In sum, burnout is a state of emotional, mental, and physical exhaustion caused by excessive and prolonged stress at work or elsewhere. People with burnout are very negative about their activities, find it hard to concentrate, are listless and with a lack of creativity.

In order to implement these suggestions, it is important to understand the processes of burnout because the workers’ well-being has implications for stability in the healthcare workforce and for the quality of care provided. Indeed, the organization could protect the individuals, by giving support in decreasing the degree of burnout by initiating intervention strategies or specific training programs [23, 26-28].

1.3. Emotional Intelligence (EI) As a Protective Factor against Burnout

As literature has amply demonstrated, workplace stress has a detrimental effect on the health and wellbeing of employees, as well as a negative impact on workplace productivity and profits. Researchers have identified several psychological variables that help the individuals to protect their health from stress. EI is one among them that can moderate the effect: more specifically, lower levels of EI was associated with higher levels of perceived stress [29, 30]. In other terms, EI and coping strategies may be interrelated to have an effect on each other. Individuals who are emotionally intelligent can cope better with life’s challenges and control their lives. Indeed, EI has a positive influence on reduction of burnout and job satisfaction [31, 32].

Furthermore, EI competencies are not innate talents, but rather learned [2, 33]. Organization could also help in preventing burnout by ensuring reduced role conflict and ambiguity, ensuring participation in decision-making, by increasing feedback and by encouraging the development of a social support network [34].

1.4. Aims of the Study

Literature has amply demonstrated that EI is associated with lower levels of burnout [8] and protects against burnout [9, 10], because it allows workers to be more resilient and less likely to suffer burn out. The aim of this study is demonstrated the effect of Emotional Intelligence on Burnout in a group of Healthcare Professionals (specifically, doctors and nurses).

2. Methodology

2.1. Instruments

Health care professionals were invited to complete the following tests:

- *Self Report Emotional Intelligence Test* (Schutte *et al.*, 1998; *it. ad.* Craparo, *et al.* [35]).
The SREIT consists of 33 items on a 5-point Likert scale (from 1 „completely disagree“ to 5 „completely agree“). Cronbach’s calculated on the Italian sample of the study is .83.
- *Link Burnout Questionnaire, LBQ* [36].

A self-reporting questionnaire that aims to measure burnout syndrome in health professionals (as doctors, nurses, hospice workers, emergency medical technicians, and other trained caregivers). LBQ is composed of 24 item, grouped in four dimensions: 1. *Psycho-physical exhaustion*, that refers to feel tense, under pressure, and without energy (Cronbach’s alpha = 0.81); 2. *Detriment of the relationships*, that describes the quality of relationship between employees and their clients; this relationship is characterized by insensibility, and distance form clients’ problems (Cronbach’s alpha = 0.77); 3. *Professional Inefficacy*, that includes the lack of gratifications by own work (Cronbach’s alpha = 0.83); 4. *Disillusion*, the last phase of the process (Cronbach’s alpha = 0.86). Other variables, such as gender, length of service (years of professional experience) and organizational department, were included as control variables.

The procedure was reviewed and approved by the Ethics Commission of Kore University and by CEFPAS.

2.2. Participants

The participants were 148 employees (M = 58; F = 90) working in health care, aged 23-66 years (M = 50.12; SD = 8.82) and recruited by CEFPAS (Centre for Training and Research in Public Health).

The vast majority of professionals were aged between 41-50 years of age² (34%) and between 51-60 years of age³(38%). The 20% of them is between 30-40 years old⁴, while few professionals are young (under 30 years old) or senior (over 60 years old).

Moreover, 67 percent of respondents was doctors (54% males and 46% females), while the large part of other caregivers were females (47.67%). Indeed, there are no difference by nurses' distribution (M = 11; F = 11).

The distribution by length of service underlines that 78% of respondents had been working for more than 10 years, while 11% of them had been working for 1-5 years, 8% between 5-10 years, and 3% less than one years' service. Indeed, as literature has amply demonstrated [37], length of service has important influence on the level of stress and burnout syndrome. Furthermore, most of the health professionals (94.59%) belongs to a public organization (the percentage who work in Emergency has consistently near 41.89%). In sum, over 90 percent of them have been working in health care system (95%) for more than 10 years (78%), have a college degree (70%) and an open-ended contract (90%). 52 percent of them are doctors, 15 percent nurses and 33 percent other health care professionals (such as psychologists, midwives, therapists). Moreover, 46 percent of them work in Emergency Department (54 percent of them in Other Departments).

Emergency Department provides health professionals involved in the treatment of care for undifferentiated and unscheduled patients with illnesses or injuries requiring immediate medical attention. Emergency professionals generally practice in hospital emergency departments, pre-hospital settings via emergency medical services, and intensive care units, but may also work in primary care settings, such as urgent care clinics. Moreover, other Departments (such as prevention, mental health services, physical therapy and rehabilitation, elective surgery, etc.) provide managing clinical complexity based on planned work processes. Using this perspective, these structures shape wider relational patterns request wider relational time and, here, health is considered as a multi-dimensional and global approach.

The participants were being asked to participate in this survey research project voluntary and their identities were completely anonymous.

2.3. Procedure

The participants were informed about the purpose of the study and they gave their informed consent. The experimental procedure was explained, and they participated to the study filling out the questionnaires in a group setting, anonymously, voluntarily, without time restrictions. A two-step analysis was conducted: an explorative analysis was first conducted, based on parametric test. Then, in order to investigate the structure of the relationship among the instrumental variables, Pearson's correlation was applied. Finally, for modeling the relationship between the investigated features (EI and burnout Syndrome), we used Local Regression Models (LOESS). To compare the scores belonging to the different scales (STREIT and LBQ) and to obtain a unique distribution of values, the following transformation procedure [38] was applied:

$$z_i = \frac{x_i - \min(x_i)}{\max(x_i) - \min(x_i)}$$

This procedure yielded a new set of scores $z_i \in (0,1)$.

3. Results⁵

Results show that males experience more burnout (Psycho-physical exhaustion and Professional Inefficacy⁴ scores) than females. Indeed, these results are statistically significant (Table 1):

Table-1. Gender differences, Student's t test

	Males N=58		Females N=90		p-value
	M	SD	M	SD	
Emotional Intelligence	,704	,095	,703	,091	,948
Psycho-physical exhaustion	,370	,351	,257	,190	,006
Professional Inefficacy	,202	,228	,170	,133	,046
Detriment of the relationships	,340	,307	,220	,184	,139
Disillusion	,290	,276	,247	,204	,109
Burnout (total score)	,300	,192	,290	,142	,019

² Including 50 years

³ Including 60 years

⁴ Including 40 years

⁵ The data have been analyzed by Giuliana Lo Presti, Chiara Oddo, Monica Rizzo, Mario Sangiorgi, students in Statistics, SEAS Department, University of Palermo

Moreover, burnout increases as length of service with the organization increases (Table 2):

Table-2. Length of service differences, One-Way ANOVA

	Under 1 year N=3		1-5 years N=17		5-10 years N=12		Over 10 years N=114		F	p-value
	M	SD	M	SD	M	SD	M	SD		
Emotional Intelligence	,722	,120	,704	,108	,716	,075	,702	,092	,121	,947
Psycho-physical exhaustion	,389	,309	,452	,283	,491	,193	,330	,202	3,316	,022
Professional Inefficacy	,200	,120	,212	,152	,272	,195	,214	,146	,562	,641
Detriment of the relationships	,367	,233	,414	,290	,467	,190	,289	,174	4,665	,004
Disillusion	,122	,157	,349	,262	,353	,172	,272	,218	1,547	,205
Burnout (total score)	,269	,162	,357	,230	,395	,143	,276	,150	2,937	,035

More specifically, burnout increases between 5 and 10 years of experience and decreases over 10 years. Indeed, post hoc analysis (Turkey HSD) indicated that there was no finding of statistical significance between the pair 1 (Under 1 year), and 2 (1-5 years), and 3 (5-10 years), while there was statistical significance between the pair 3 (5-10 years) and 4 (Over 10 years). More specifically, Detriment of the relationships impact health professionals who work between 5 and 10 years of experience. Table 3 shows p value for the comparison among the professionals involved in Emergency department vs. other departments:

Table-3. Department differences (Emergency department vs others departments), Student's t test (Between-groups)

	Emergency Department N=62		Other Departments N=72		p-value
	M	SD	M	SD	
Emotional Intelligence	,705	,099	,701	,090	,527
Psycho-physical exhaustion	,439	,237	,237	,183	,028
Professional Inefficacy	,228	,146	,215	,155	,669
Detriment of the relationships	,387	,228	,272	,158	,001
Disillusion	,325	,237	,235	,186	,084
Burnout (total score)	0,345	,176	0,255	,141	,124

Results demonstrate that Psycho-physical exhaustion and Detriment of the relationships seem to impact health professionals involved in Emergency Department than the others. In order to test the relationship between Emotional Intelligence and burnout, Pearson's correlations was applied. The correlation coefficients shown in Table 4 indicate statistically significant bi-variate correlations between the investigated variables. As we expected, Emotional Intelligence and burnout are inversely related.

Table-4. Pearson's correlations

	Emotional Intelligence	Psycho-physical exhaustion	Professional Inefficacy	Detriment of the relationships	Disillusion	Burnout
Emotional Intelligence	-	-	-	-	-	-
Psycho-physical exhaustion	-,329**	-	-	-	-	-
Professional Inefficacy	-,321**	,486**	-	-	-	-
Detriment of the relationships	-,260**	,715**	,366**	-	-	-
Disillusion	-,234**	,698**	,593**	,525**	-	-
Burnout	-,342**	,899**	,805**	,805**	,867**	-

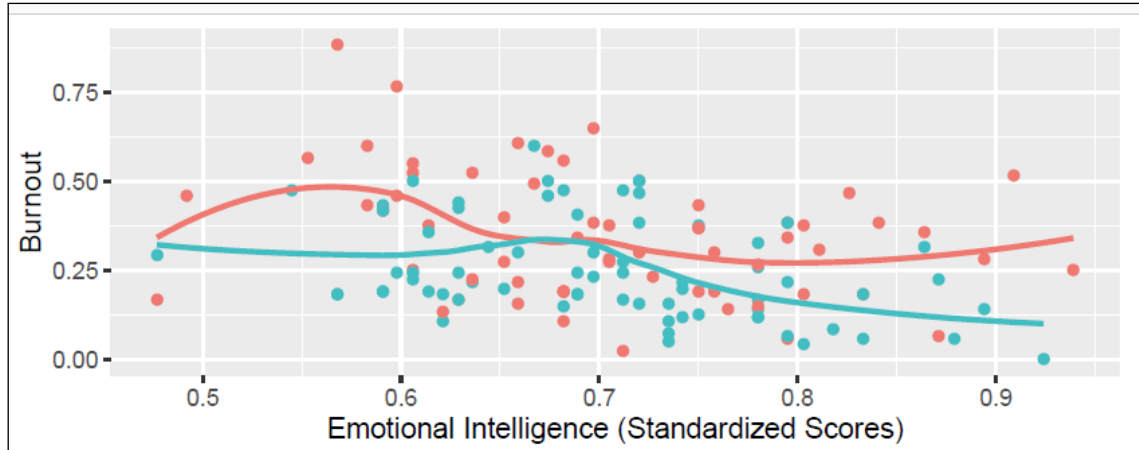
*p<.05; **p<.01

The correlations reported in table 4 are small, due to possible non-linear relationships between EI and burnout (and its subscales). Therefore, we analyzed the relationships between Emotional Intelligence and burnout (including burnout sub-scales) among health professionals involved in Emergency Department (red line) and other Departments (blue line), comparing means (see Figure 1; Figure 2; Figure 3; Figure 4; Figure 5). Indeed, Local regression models (loess) are considered [39].

Burnout in Emergency Department (the red line) is more frequent than in other Departments (the blue line indicates in the following Figures). The Figures underline the relationships between EI and burnout in relation to the

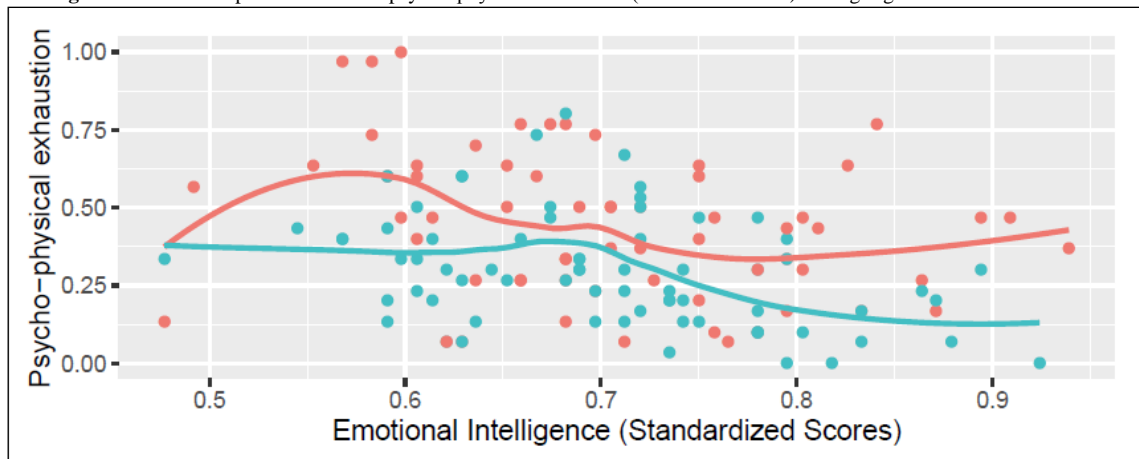
different Departments (Emergency Department vs. other Departments): as EI goes up in the scales, burnout goes down (Figure 1). So, personal accomplishment in healthcare professionals seems to be influenced by the level of Emotional Intelligence: indeed, as EI goes up in the scales, even burnout's sub-scales go down (Figures 2, 3, 4, and 5). In particular, figures show that as EI goes up Psycho-physical exhaustion (Figure 2) and Detriment of the relationships (Figure 3) seem to represent the variables that major differ Emergency Department healthcare professionals from the others.

Figure-1. Relationship between EI and burnout syndrome among organizational commitment



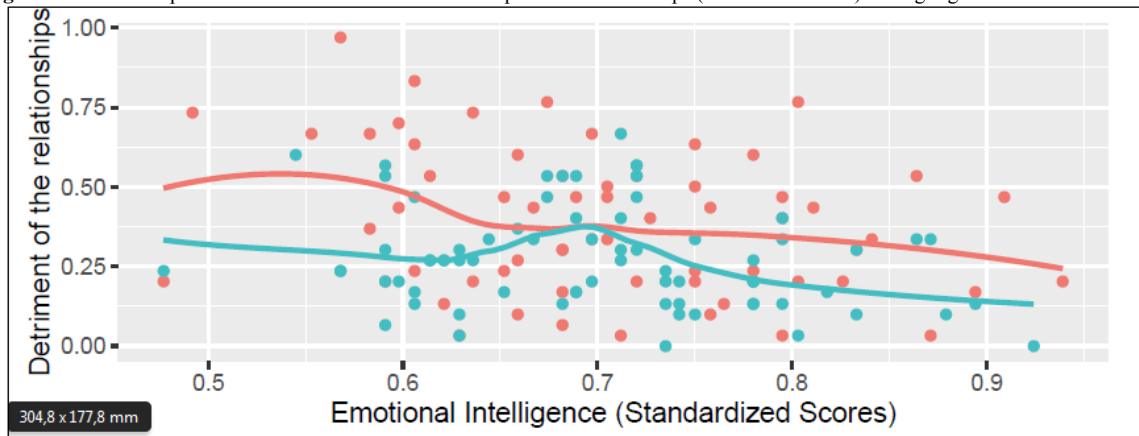
(Emergency department – red line; other departments – blue line)

Figure-2. Relationship between EI and psycho-physical exhaustion (burnout's subscale) among organizational commitment

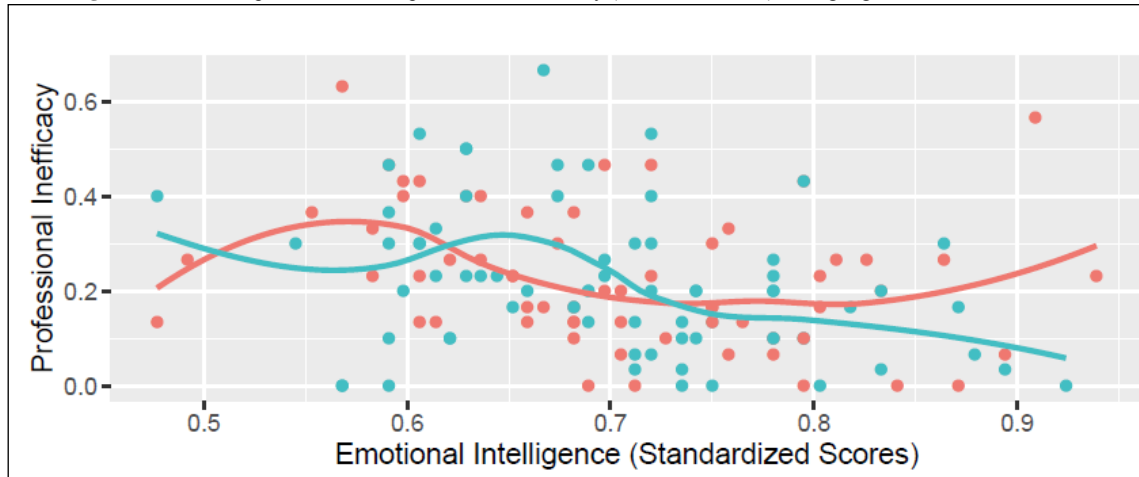


(Emergency department – red line; other departments – blue line)

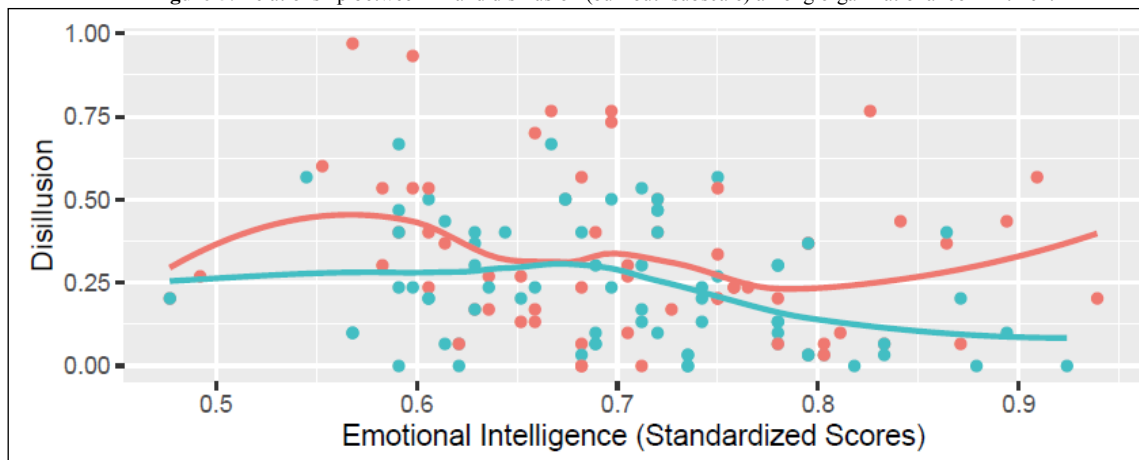
Figure-3. Relationship between EI and detriment of the interpersonal relationships (burnout's subscale) among organizational commitment



(Emergency department – red line; other departments – blue line)

Figure-4. Relationship between EI and professional inefficacy (burnout' subscale) among organizational commitment

(Emergency department – red line; other departments – blue line)

Figure-5. Relationship between EI and disillusion (burnout' subscale) among organizational commitment

(Emergency department – red line; other departments – blue line)

4. Discussion

The aim of the study was to verify the differences in burn-out dimensions for gender, years of professional experience and type of Department. Then, we have analysed the relationship between burn-out and EI, hypothesizing that helping professions' workers which had higher levels of EI, show lower levels of burnout symptoms.

Data analysis partially supported these hypothesis, showing the following results.

Males show higher scores in Psycho-physical exhaustion and Professional Inefficacy, while females perceive more positive outcomes of their activity and, consequently, they perceive less stress than men. These results seem to be in line with existing literature [40-42].

Furthermore, age is one of the most important risk factor for stress and the results are statistically significant. Moreover, burnout increases as length of service with the organization increases; more specifically, detriment of the relationships impact health professionals who work between 5 and 10 years of experience, and decreases over 10 years. It may be related to greater consistency and increase their skills and work experience due to increasing of age [42-45].

Indeed, as literature has amply demonstrated, this study confirms that workers in Emergency Departments have higher burnout levels compared to the other Departments [28, 46-48]. More specifically, our survey underlines that Psycho-physical exhaustion and Detriment of the relationships impact health professionals involved in Emergency Department more than the others. In 2006, Potter conducted a critical review of the literature examining burnout among nurses and physicians working in emergency departments. Practice in Emergency medicine have long been perceived as stressful endeavors, placing emergency medicine professionals at risk of burnout [27, 28, 49], demonstrating that ongoing training was an important retention factor for health professionals [28].

Finally, our results confirm the relationship between burn-out and EI, with negative direction, and with a stronger association with the dimensions of Psycho-physical exhaustion and Professional Inefficacy. These results have important implications in the practice of a medical activity, because feeling tense, under pressure, without energy, that are characteristics of the psychophysical exhaustion, can interfere in the professional activity.

Similarly, Weng, *et al.* [50], found that doctor EI is positively correlated with less burnout and higher levels of job satisfaction. More specifically, they underlined that a doctor with higher EI was more likely to have better skills in stress management in the workplace at the individual level. In other words, EI may act as a protecting factor that

reduces burnout. Also Görgens-Ekermans and Brand [10] suggested that the ability to effectively manage positive and negative emotions within oneself and others (EI) may be a protective factor, which could improve individual stress/burnout resilience.

As Görgens-Ekermans and Brand [10] underlined, EI developmental interventions may increase emotional coping resources and enhanced social skills, which may benefit the long-term occupational health of health professionals. At the same time, Bragard, *et al.* [28] demonstrated that providing training opportunities could improve Emergency Department professionals' knowledge, skills, and self-confidence, subsequently reducing work-related stress [51]. More specifically, by the systematic reviews on the relationships between work stress, burnout, and quality of work life in Emergency Department physicians Bragard, *et al.* [28] demonstrated that providing training opportunities yielded a 10% improvement in performance.

In conclusion, these results seem to support the importance of a training focused on developing Emotional Intelligence (EI) in specialists from the healthcare system.

5. Limitations and Conclusions

The study presents some limitations. First of all, study variables were measured from the same source (helping professions' workers) thus creating a single source bias. A second limitation of the study is the cross-sectional measurement. It was not possible to test the causal relationships proposed in the theoretical framework. A further limitation of the study was the reduced number of participants, and the use of convenience sampling methods for data collection. While cross-sectional convenience samples may be useful in exploring theoretical models, such as the one built in the present study, caution should be exercised while generalizing the results beyond the current research.

Despite these limitations, the important results give us some indication for future research and interventions. Future research could analyze, i.e., the mediating role of EI in the relationship between burn-out and some professional and organizational outcome, as job satisfaction, quality of performance, or turnover intention and neglect. Regarding the interventions, training courses that improve the ability to manage emotions could prevent some professional and organizational dysfunctions [23, 25, 27]. Considering that higher EI reduces individual burnout and less burnout is associated with higher levels of patient satisfaction at the organizational level [50], educational and training courses for the promotion of doctor wellness should be developed. These courses could improve strategies for stress management and the concept of risk management in order to avoid situations of malpractice.

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