ORIGINAL ARTICLE

Evaluation of Self-esteem, Emotional Intelligence, and their Association with Demographic Factors among Health Care Professionals in Karachi

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Abstract

Background: Healthcare professionals are exposed to difficult situations that lead to increased stress. Higher emotional intelligence can lead to better psychological adaptation and greater self-esteem while lower emotional intelligence may result in hopelessness and stressful behavior.

Objective: To examine self-esteem, emotional intelligence, and their relationship with demographic factors among healthcare professionals in Karachi.

Methods: A cross-sectional study was conducted among healthcare professionals using a self-reported questionnaire. The data was collected through Google forms from April 2021 to April 2022. Spearman correlation and Mann-Whitney U test were applied for inferential statistics and the p-value was fixed at ≤0.05.

Results: A total of 261 participants responded to the survey with complete responses. The mean age of the participants was 28 (IQR=26-30) years and most of them were females (69%). The median emotional intelligence score of participants was 5.56 (IQR=6.00-4.93) and the median self-esteem score of participants was 29 (IQR=30-27). A weak positive correlation was found between emotional intelligence and self-esteem scores (ρ=0.285, p<0.001). Linear regression analysis showed a significant positive association of education (p=0.024) and a significant negative association of profession (p=0.017) with self-esteem. Moreover, it also showed a significant positive association of age (p=0.045) with emotional intelligence.

Conclusion: The study results showed a weak positive correlation between emotional intelligence and self-esteem. Furthermore, education and profession were found to be significantly associated with self-esteem whereas only age was found to be significantly associated with the emotional intelligence of the participants.

Keywords: *Emotional intelligence, self-esteem, demographic factors, association, healthcare professionals.*

INTRODUCTION

Emotional intelligence also called emotional quotient, is defined as “the ability of a person to understand and manage his or her own emotions and of the others” [1]. The emotional intelligence model presented by Goldman has two subscales, one consists of individual capabilities while the other of social abilities [2]. The emotional intelligence model has four fundamental features recognizing emotions, understanding emotions, regulating emotions and using emotions [3]. The concept of emotional intelligence can be applied in education and work-related situations. People with high emotional skills have been reported to have better physical, social and emotional adaptations [4].

Self-esteem is defined as confidence in our ability to think and cope with the basic challenges of life [5]. High self-esteem is reported to be connected with happiness while low self-esteem with depression [6]. Higher emotional intelligence leads to better psychological adaptation and greater self-esteem while lower emotional intelligence results in hopelessness and stressful behaviour [7].

Healthcare professionals recommend and apply preventive and curative measures and promote health. According to the World Health Organization, healthcare professionals include medical doctors, public health professionals, nursing professionals, dentists and pharmacists [8]. These healthcare professionals are exposed to difficult situations that can cause stress as they deal directly with persons who suffer from health problems. Self-esteem affects the way individuals develop attitudes about themselves, which affects their professional development. Therefore the use of skills is necessary to manage stress, attitudes and emotions themselves [9].

The association between emotional intelligence and self-esteem among healthcare professionals has been explored earlier. Pérez-Fuentes *et al.* in 2019 reported empathy and emotional intelligence to be significantly associated with self-esteem among healthcare professionals [10]. Moreover, Shamsaei *et al.* in 2017

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reported a direct and significant association between emotional intelligence and self-esteem in nursing and midwifery undergraduates [11].

To the best of the investigators' knowledge though, an association between emotional intelligence and self-esteem among healthcare professionals has not been explored in Pakistan yet. Though certain local studies have explored this association [7, 12, 13], the studied population did not comprise healthcare professionals. This study was therefore conducted to evaluate self-esteem, emotional intelligence, their correlation and their association with demographic factors among healthcare professionals of Karachi. It is expected that this study will provide pertinent local evidence, as the studied relationship may have an impact on job performance as well as the quality of patient care of healthcare professionals.

SUBJECTS AND METHODS

A cross-sectional study was carried out from April 2021 to April 2022, at Baqai Institute of Health Sciences, Baqai Medical University, Karachi. Ethical approval of the study was taken from Baqai Institute of Health Sciences, Baqai Medical University (Reference Number: FHM 35-2020/MPH student/Batch 27). The online survey was conducted in Karachi and participants were approached from other medical institutes as well. Being an adult (>18 years of age) and a health professional, either a doctor or a dentist, were the inclusion criteria of the study. Being unwilling to participate and having any previous psychiatry history or mental health issues were the exclusion criteria of the study.

A previously conducted study reported a mean score of 88.1±8 for emotional intelligence and 26.1±2.4 for self-esteem among healthcare professionals [14]. The sample size was estimated for both of the measures using a 95% confidence interval for estimating the sample size within 2 units of the score. A larger sample size of 62 participants was calculated for emotional intelligence.

A questionnaire was designed on Google forms. The link to the questionnaire was disseminated through Google Docs and was shared on different social media platforms such as Whats App groups and Facebook messenger. The consent form was part of the online survey and only those who gave consent for participation were allowed to continue the survey. Google link was kept active for 2 months, till the sample size was achieved.

The questionnaire was composed of three sections. The first section contained questions regarding the demographic profile of participants, which included age, gender, education, profession and marital status. The second and third sections included questions from Wong and Law emotional intelligence [15] and Rosenberg self-esteem scales [16] respectively. Wong and Law Emotional intelligence scale assesses individuals' knowledge about their emotional abilities. It is 16 items, a 7-point Likert-type scale with 1 meaning strongly disagree while 7 meaning strongly agree. The Rosenberg self-esteem scale is a 10-item scale. The 10 items are rated on a 1- 4 point Likert scale ranging from 'strongly agree' to 'strongly disagree'. A high score reflects high self-esteem.

Data were entered and analysed by statistical package for social science (SPSS) version 21. Frequencies and percentages and medians with interquartile ranges were calculated for categorical and continuous variables respectively. After checking the normality assumption with the Shapior-wilk test, the Spearman correlation coefficient was calculated while linear regression was applied to check the association of socio-demographic characteristics with emotional intelligence and self-esteem. A p-value ≤0.05 was considered statistically significant.

To the best of the authors' knowledge, the study procedures were in line with the institutional ethical standards for human experiments and the Helsinki Declaration, including taking verbal informed consent from all the participants. The ethical approval from Baqai Institute of Health Sciences was also duly taken (reference # FHM 35-2020/MPH student/Batch 27).

RESULTS

A total of 261 participants responded to the survey with complete responses. The median age of the study participant was 28 (IQR=26-30) years. Details of their demographic characteristics are given in Table **1**.

Table 1: Participant characteristics.

Participant Characteristics	Count (%)
Age (Years)	
Up to 29	182 (69.7)
30 or Above	79 (30.3)
Gender	
Male	81 (31)
Female	180 (69)
Marital Status	
Married	146 (55.9)
Unmarried/Divorced	115 (44.1)
Education	
Graduate	137 (52.5)
Postgraduate	124 (47.5)
Profession	
Doctor	202 (77.4)
Dentist	59 (22.6)

The median emotional intelligence score of participants was 5.56 (IQR=4.9-6) whereas the median self-esteem score was 29 (IQR=27-30). The study results further showed that there was a weak positive correlation between emotional intelligence and self-esteem scores (rs=0.285, p<0.001) (**Fig. 1**).

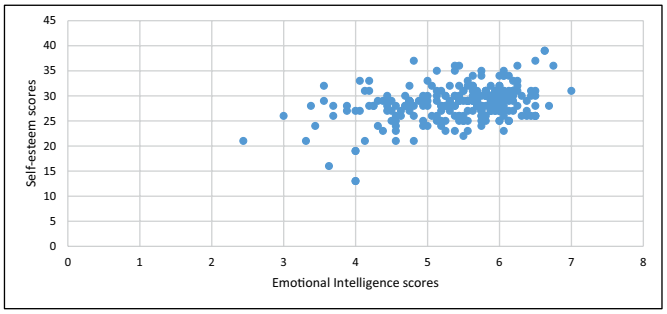

Fig. (1): Scatter pot between emotional intelligence and self-esteem scores.

Table 2: Linear regression between socio-demographic characteristics and self-esteem.

Participants Characteristics	Beta	95% Confidence Interval	p-value
Age			
Up to 29 years		Ref	
30 years or above	0.693	-0.291 – 1.678	0.167
Gender			
Female	-0.533	-0.1493 – 0.386	0.247
Male		Ref	
Education			
Postgraduate	0.083	-0.138 – -1.930	*0.024
Graduate		Ref	
Profession			
Dentist	-1.034	-0.229 – -2.294	*0.017
Doctor		Ref	
Marital status			
Unmarried/Divorced	-1.261	-0.818 – 0.985	0.856
Married		Ref	

Ref= Reference category, *Significant at p<0.05

Table 3: Linear regression model between socio-demographic characteristics and emotional intelligence.

Participants Characteristics	Beta	95% Confidence Interval	p-value
Age			
Up to 29 years		Ref	
30 years or above	0.219	0.432 – 0.005	*0.045
Gender			
Female	-0.098	-0.301 –0.106	0.345
Male		Ref	
Education			
Postgraduate	-0.13	-0.324 –0.064	0.188
Graduate		Ref	
Profession			
Dentist	0.194	-0.030 – 0.418	0.089
Doctor		Ref	
Marital status			
Unmarried/Divorced	0.131	-0.064 – 0.326	0.187
Married		Ref	

Ref= Reference category, *Significant at p<0.05

Linear regression analysis showed that self-esteem was higher in postgraduates by 0.083 units than in graduate participants. Self-esteem was significantly lower in dentists by 1.034 units than in doctors (**Table 2**).

Linear regression analysis showed that self-esteem emotional intelligence was significantly 0.219 points higher among participants aged 29 years as compared to 30 years and above participants (**Table 3**).

DISCUSSION

The study results showed a weak positive correlation between emotional intelligence and self-esteem, which was statistically significant. In line with the study findings, Pérez-Fuentes *et al.* in 2019 reported emotional intelligence to have a significant positive relationship with self-esteem among healthcare professionals [10]. Similar findings have been reported by Hasanvand and Khaledian in 2012 [17], Sa *et al.* in 2019 [14] and Kaur and Singh in 2020 [18]. Furthermore, Tajpreet and Maheshwari in 2015, Mohammed in 2019 and Saleh and Eldeep in 2020 also reported a significant positive relationship between emotional intelligence and self-esteem among nursing participants [19-21]. Locally in Pakistan, Bibi *et al.* 2016 also reported a positive relationship between self-esteem and emotional intelligence among Pakistani university students [7]. This relationship is very interesting to evaluate. Emotionally intelligent persons are suggested to maintain a positive mental state due to their capability of efficiently managing their emotions. This ability leads them to acknowledge their mistakes, identify their strengths, and experience strong self-confidence and high self-esteem. In the context of healthcare, a clear understanding of this relationship is of even greater significance. Being a healthcare professional, if an individual is unable to effectively manage his or her emotions, the consequences may well not be limited only to one's self. All in all, the literature suggests that in clinical practice, improving physicians' competencies such as emotional intelligence and self-esteem could have an impact on their job performance and leadership ability [22].

The present study reported that age was not a predictor of self-esteem scores. The relationship between these two variables is complex. Though McMullin in 2004 suggested that self-esteem becomes more stable and higher with increasing age [23], a recent meta-analysis reported mean self-esteem levels to increase from the age of 4 years to 11 years, remain stable from the age of 11 years to 15 years, increase afterward until the age of 60 years, remain constant until the age of 70 years, and decline afterward until the age of 94 years. [24] One would therefore be mistaken to treat this association as a direct one.

Our study reported that gender was not associated with regard to the self-esteem of the participants, a finding in line with the published literature. Sa *et al.* in 2019 also did not report any significant effect of gender on self-esteem scores [14]. As self-esteem is not related to the work environment only, it wasn't unexpected to not find any variation in the level of self-esteem between genders.

Our study revealed that older healthcare professionals are emotionally more intelligent. Likewise, Chen *et al.* in 2016 reported emotional intelligence to increase with age resulting in increased subjective well-being in older as compared to younger individuals [25]. It is suggested that older healthcare professionals have higher emotional intelligence due to their lifelong learning and knowledge and are better placed to face emotional challenges than younger individuals.

Our study found that gender was not associated with regard to emotional intelligence. Similarly, Celik *et al.* in 2008 found no association of emotional intelligence with respect to gender [26]. However, Bindu in 2006 reported that males are more emotionally intelligent than females [27]. It may be argued that as males work more in stressful environments and are exposed to challenging situations, they may be more used to dealing with emotions intelligently. On the other hand, it may similarly be argued that females are more exposed to stressful environments socially and learn with time to deal with such issues astutely.

It is acknowledged that the sample distribution is skewed with respect to the gender of the respondents, with a greater proportion of females. It is further acknowledged that moderate sample size may limit the generalizability of the study findings.

It is recommended that the study results should be replicated with studies of larger sample sizes that also include pharmacists and nurses besides doctors and dentists. Moreover, as emotional intelligence scores were found to be higher among older healthcare professionals, the study recommends that experienced healthcare professionals are better suited for dealing with stressful environments in clinical settings. Furthermore, the extent of emotional intelligence and self-esteem concepts taught in the curriculum of healthcare professionals should also be evaluated; as this may help to improve their decision-making at their workplace.

CONCLUSION

The study results showed a weak positive correlation between emotional intelligence and self-esteem. Furthermore, education and profession were found to be significantly associated with self-esteem whereas age was found to be significantly associated with the emotional intelligence of the participants.

ETHICS APPROVAL

The study procedures were in line with the institutional ethical standards for human experiments and the Helsinki Declaration. The ethical approval from Baqai Institute of Health Sciences was also duly taken (reference # FHM 35-2020/MPH student/Batch 27).

CONSENT FOR PUBLICATION

Prior to data collection, online informed consent was taken from each participant of the study.

AVAILABILITY OF DATA

Data cannot be shared publicly because it is the intellectual property of Baqai Institute of Health Sciences but are available on request (contact *via* manager.mph@baqai.edu.pk).

FUNDING

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CONFLICT OF INTEREST

All authors declare no conflict of interest.

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AUTHOR'S CONTRIBUTION

NA: Substantial contribution to the design of the work; and acquisition of data for the work; AND Drafting the work; AND Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. SMZHN: Substantial contribution to analysis and interpretation of data for the work; AND Revising the work critically for important intellectual content. MZIH: Substantial contribution to the conception of the work. SIAJ: Final approval of the version to be published.

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