RESEARCH ARTICLE

Emotional intelligence and burnout among medical officers of twin cities in Pakistan

Nazia Yaqoob, Somia Zulfiqar

Abstract

Objective: To compare the level of burnout and emotional intelligence among junior and senior medical officers.

Methods: The cross-sectional observational study was conducted at the Department of Applied Psychology, Government College Women University, Faisalabad, Pakistan, from February to December 2017, and comprised medical officers of either gender aged 25-45 years with professional experience 1-10 years enrolled from different government and private hospitals of Faisalabad and Lahore. Data was collected using Schutte Emotional intelligence Test and Professional Quality of Life scale. Data wsa analysed using SPSS 21.

Results: Of the 160 subjects, 90(56.3%) were male and 70(43.8%) were female medical officers. The overall mean age was 29.39±4.65 years, Further, 95(59.4%) subjects had professional experience 1-2 years, while 65(40.6%) had 3-10 years. Junior medical officers experienced significantly higher level of burnout and emotional intelligence compared to the seniors (p<0.05).

Conclusion: Junior medical officers were found to have significantly higher level of burnout and emotional intelligence compared to the seniors.

Keywords: Burnout, Medical officers, Emotional intelligence, T-test. (JPMA 72: 1311; 2022)

DOI: https://doi.org/10.47391/JPMA.1382

Introduction

Emotional intelligence (EI) refers to the ability to identify and manage one's own emotions, as well as those of the others.[1] An assessment of EI in emergency medicine residents suggested that EI was higher in females (107) than the males (101).[2] Comparative study on EI and quality of care practices by nurses and doctors towards their patients concluded that patients perceived their medical officers (MOs) as having more EI than the nurses.[3] EI is a solid forecaster of a medical residents' wellbeing. Computing EI can likely recognise individuals expected to flourish in the medical profession.[4]

Burnout is a state of mental exhaustion caused by the physician's professional life, categorised by emotional exhaustion, depersonalisation and a reduced sense of achievement.[5] Many MOs experience variable episodes of burnout throughout their careers, but few can cope without consequences. Prevalence of burnout among MOs ranges from nil to 80.5%.[6] Burnout is generally high among clinicians worldwide, while the particular rates fluctuate by nation, medical field, practice background, gender and vocation phase. Burnout can have devastating consequences for the affected doctors, their colleagues, patients and the healthcare system.[7]

In Pakistan, a study favoured treating the cause, not the symptoms, of burnout.[8] The levels of burnout were rather high among MOs in Taiwan. Age, gender, field, work hours, and work-loads were prominent features allied with burnout.[9] Burnout and personality among primary care MOs showed that about 40% reported low levels of success, 35% described high levels of emotional exhaustion, and 20% conveyed high levels of depersonalisation connecting to high stages of burnout.[10]

The current study was planned to compare the level of burnout and EI among junior and senior MOs.

Subjects and Methods

The cross-sectional observational study was conducted at the Department of Applied Psychology, Government College Women University, Faisalabad, Pakistan, from February to December 2017. After approval from the institutional ethics review committee, the sample size was calculated using G-Power 3.1.9.4 software[11] with alpha value 0.05, effect size 0.8 on the basis of two-tail calculations with the desired statistical power of 0.99.

The sample was raised using stratified random sampling technique from different government and private hospitals of Faisalabad and Lahore after taking permission from respective hospital administrations. Those included were MOs of either gender aged 25-45 years with professional experience 1-10 years. Those outside the age and experience range were excluded. Those with work experience 1-2 years were defined as junior MOs (JMOs), and those with 3-10 as senior MOs (SMOs).

Department of Applied Psychology, Government College Women University Faisalabad, Faisalabad, Pakistan.

Correspondence: Nazia Yaqoob. e-mail: naziayaqoob@gcwuf.edu.pk

Appendix-A:

Emotional Intelligence Scale **(SSEIT)**

Instructions: Indicate the extent to which each item applies to you using the following scale:

1 = strongly disagree ; **2** = disagree; **3** = neither disagree nor agree; **4** = agree **5** = strongly agree

____	1.	I know when to speak about my personal problems to others.
____	2.	When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.
____	3.	I expect that I will do well on most things I try.
____	4.	Other people find it easy to confide in me.
____	5.	I find it hard to understand the nonverbal messages of other people.
____	6.	Some of the major events of my life have led me to re-evaluate what is important and not important.
____	7.	When my mood changes, I see new possibilities.
____	8.	Emotions are some of the things that make my life worth living.
____	9.	I am aware of my emotions as I experience them.
____	10.	I expect good things to happen.
____	11.	I like to share my emotions with others.
____	12.	When I experience a positive emotion, I know how to make it last.
____	13.	I arrange events others enjoy.
____	14.	I seek out activities that make me happy.
____	15.	I am aware of the nonverbal messages I send to others.
____	16.	I present myself in a way that makes a good impression on others.
____	17.	When I am in a positive mood, solving problems is easy for me.
____	18.	By looking at their facial expressions, I recognize the emotions people are experiencing.
____	19.	I know why my emotions change.
____	20.	When I am in a positive mood, I am able to come up with new ideas.
____	21.	I have control over my emotions.
____	22.	I easily recognize my emotions as I experience them.
____	23.	I motivate myself by imagining a good outcome to tasks I take on.
____	24.	I compliment others when they have done something well.
____	25.	I am aware of the nonverbal messages other people send.
____	26.	When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.
____	27.	When I feel a change in emotions, I tend to come up with new ideas.
____	28.	When I am faced with a challenge, I give up because I believe I will fail.
____	29.	I know what other people are feeling just by looking at them.
____	30.	I help other people feel better when they are down.
____	31.	I use good moods to help myself keep trying in the face of obstacles.
____	32.	I can tell how people are feeling by listening to the tone of their voice.
____	33.	It is difficult for me to understand why people feel the way they do.

Source: Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. Personality and Individual Differences, 25, 167–177.

After taking informed consent from the participants, data was collected usingh a demographic sheet. EI was measured using the Schutte Self-report Emotional Intelligence Test (SSEIT) (Appendix-A),[12] which has perception of emotion (POE), utilisation of emotions (UOE), managing others' emotions (MOTE), and managing own emotions (MOE) subscales. It has 33 self-report items scored on a Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The total of the subscales generate the scale score, ranging 33-165, with higher scores indicating better EI).

Appendix-B:

PROQOL

Select the number that honestly reflects how frequently you experienced these things in the last 30 days.

1=Never; **2**=Rarely; **3**=Sometimes; **4**=Often; **5**=Very Often

S. No.	Statements	1	2	3	4	5
1	I am happy.					
2	I feel connected to others.					
3	I am not as productive at work because I am losing sleep over traumatic experiences of a person I help.					
4	I feel trapped by my job.					
5	I have beliefs that sustain me.					
6	I am the person I always wanted to be.					
7	I feel worn out because of my work.					
8	I feel overwhelmed because my workload seems endless.					
9	I feel "bogged down" by the system.					
10	I am a very caring person.					

B. Hudnall Stamm, 2009-2012. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). www.proqol.org. This test may be freely copied as long as (a) author is credited, (b) no changes are made, and (c) it is not sold. Those interested in using the test should visit www.proqol.org to verify that the copy they are using is the most current version of the test.

Burnout was measured using the Professional Quality of Life Scale (ProQOL)(Appendix-B),[13] which has 10 items scored on 5-point Likert scale. Items 1, 2, 5, 6 and 10 are reverse-scored. A high score on the scale indicates higher level of burnout.

Data was analysed using SPSS 21. Independent sample t-test was used as appropriate. $P<0.05$ was considered statistically significant.

Table-1: Demographic data of the sample.

Variables		n (%)
Gender	Male	90 (56.3)
	Female	70 (43.8)
Age (years)	25-35	146 (91.3)
	36-45	14 (8.8)
Education	MBBS	84 (52.5)
	FCPS Part 1	76 (47.5)
Marital status	Married	86 (53.7)
	Unmarried	74 (46.3)
Organisation	Public	119 (74.4)
	Private	41 (25.6)
Living Area	Rural	38 (23.8)
	Urban	122 (76.3)
Monthly income	30K-65K	82 (51.3)
	66K-above	78 (48.8)
Experience	1-2Year (Probation)	95 (59.4)
	3-10 year	65 (40.6)

MBBS: Bachelor of Medicine, Bachelor of Surgery. FCPS: Fellow of the College of Physicians and Surgeons.

Table-2: Reliability index, item details, number of items, scoring range, cut-off scores, and mean values of the subscales (n=160).

Scale	Item Numbers in Scale	Scoring Range	Cut-off Score	Mean±SD	Total items	Chronbach's Alpha
Burnout	1-10	10-50	25	34.87±5.39	10	0.67
MOTE	1,4,11,13,16,24,26,30	8-40	20	30.33±3.95	8	0.55
MOE	2,3,10,12,14,21,23,28,31	9-45	23	33.87±4.64	9	0.68
POE	5,9,15,18,19,22,25,29,32,33	10-50	25	35.96±5.20	10	0.60
UOE	6,7,8,17,20,27	6-30	15	23.27±3.94	6	0.70
EI	1-33	33-165	83	123.43±14.77	33	0.85

MOTE: Managing others' emotions, MOE: Managing own emotions, POE: Perception of emotions, UOE: Utilisation of emotions, EI: Emotional intelligence.

Table-3: Work experience related to EI and burnout among the medical officers.

Variable	Experience	n	Mean±SD	t-test	*p*-value	Cohen's d
Burnout	Junior	95	35.65±4.95	2.22	0.02	0.35
	Senior	65	33.74±5.84			
MOTE	Junior	95	30.44±3.62	.43	0.66	0.07
	Senior	65	30.17±4.40			
MOE	Junior	95	34.51±3.67	2.12	0.03	0.33
	Senior	65	32.94±5.67			
POE	Junior	95	36.44±4.41	1.43	0.15	0.22
	Senior	65	35.25±6.14			
UOE	Junior	95	24.14±3.51	3.49	0.001	0.55
	Senior	65	22.00±4.20			
EI	Junior	95	125.53±11.59	2.20	0.02	0.34
	Senior	65	120.35±18.13			

MOTE: Managing others' emotions, MOE: Managing own emotions, POE: Perception of emotions, UOE: Utilisation of emotions, EI: Emotional intelligence, SD: Standard deviation; Cohen's d measured the effect size of the difference between two means.

Results

Of the 160 subjects, 90(56.3%) were male and 70(43.8%) were female medical officers. The overall mean age was 29.39±4.65 years, Further, 95(59.4%) subjects had professional experience 1-2 years, while 65(40.6%) had 3-10 years (Table 1).

Chronbach's alpha value for reliability and internal consistency of both the scales and the all the subscales as well as respective cut-off scores were calculated (Table 2).

JMOs showed significantly higher levels of burnout and ERI compared to the SMOs ($p<0.05$), but the result was not significantly different in terms of subscales except MOE and UOE (Table 3).

Discussion

The current study found that JMOs experienced significantly higher level of burnout compared to the SMOs. In Egypt, most MOs had a moderate level of burnout and one-fourth had high-level burnout, and the multiple factors were identified, like age, gender, regularity of experience to work-related rigour, years of practice, work-load, command and management tasks, etc.[14] In Pakistan, JMOs have multiple responsibilities compared to SMOs in some institutions. There are times when they have to perform additional or compensatory duties in place of their seniors, and such factors may cause high level of burnout. Similar findings were reported earlier.[15] A study claimed that burnout was prevalent among postgraduate year 1 doctors.[16] Another study on Irish and American JMOs declared that Irish doctors had higher burnout compared to the American practitioners ($p=0.03$), and argued that such levels were unjustifiable both for the JMOs and their patients.[17] A study said the best forecaster for emotional exhaustion was neuroticism, while for individual achievement the forecasters were consciousness and EI.[17]

The other significant finding of the current study was that the JMOs had significantly higher level of EI, and a better ability with respect to MOE and UOE. Similar findings were reported in an earlier study.[19] Another study concluded that the senior faculty had a higher total EI score compared to the junior residents and interns.[20] The difference could be due to cultural and geographical factors. Furthermore, higher EI is a decent predictor of lesser stress, anxiety, and depression in resident MOs.[21] Besides, EI can indirectly lessen tiredness somewhat through adjusting surface acting and natural acting approaches.[22]

Conclusion

JMOs experienced significantly higher level of burnout and EI compared to SMOs. Also, the JMOs had better ability to manage their own emotions, and to better utilise their emotions compared to the SMOs.

Acknowledgement: We are grateful to all the study participants.

Disclaimer: The text is based on an M.Phil thesis (studying multiple variables) conducted after approval from the Institutional ethics review committee. The current study analysed only two of those variables; emotional intelligence and burnout.

Conflict of interest: None.

Source of Funding: None.

References

1. Emotional Intelligence, Psychology Today. [Online] 2020 [Cited 2020 February 8]. Available from: URL: https://www.psychologytoday.com/intl/basics/emotional-intelligence
2. Papanagnou D, Linder K, Shah A, London KS, Chandra S, Naples R. An assessment of emotional intelligence in emergency medicine resident physicians. Int J Med Edu 2017; 8: 439-45.
3. Young R. A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices. InRAIS Conference Proceedings-The 11th International RAIS Conference on Social Sciences; 2018 Nov 20.

4. Lin DT, Liebert CA, Tran J, Lau JN, Salles A. Emotional intelligence as a predictor of resident well-being. J Am Coll Surg 2016; 223: 352-8.
5. Nmadu AG, Omole VN, Oyefabi AM, Usman NO, Igboanusi CJ, Gobir AA, et al. Physician burnout: an overview. J Res Basic Clin Sci 2019; 1: 111-4.
6. Rotenstein LS, Torre M, Ramos MA, Rosales RC, Guille C, Sen S, et al. Prevalence of burnout among physicians: a systematic review. JAMA 2018; 320: 1131-50.
7. Lemaire JB, Wallace JE. Burnout among doctors. BMJ 2017; 358. j3360
8. Ullah T. PHYSICIAN BURNOUT: WE NEED TO TREAT THE CAUSE NOT THE SYMPTOMS. J Postgrad Med Inst 2019; 33.
9. Tsai YL, Tung YC, Cheng Y. Surveys of Burnout Among Physicians in Taiwan. J Acute Med 2018; 8: 86-98.
10. Brown PA, Slater M, Lofters A. Personality and burnout among primary care physicians: an international study. Psychol Res Behav Manag 2019; 12: 169-77.
11. Faul F, Erdfelder E, Buchner A, Lang AG. Statistical Power analyses using G* Power 3.1: tests for correlation and regression analyses. Behav. Res. Methods. 2009;41:149-160.
12. Schutte NS, Malouff JM, Hall LE, Haggerty DJ, Cooper JT, Golden CJ, et al. Development and validation of a measure of emotional intelligence. Personality and Individual Differences 1998; 25: 167-77.
13. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). [Online] [Cited 2017 Feb 14]. Available from: URL: www.proqol.org.
14. Abdo SA, El-Sallamy RM, El-Sherbiny AA, Kabbash IA. Burnout among physicians and nursing staff working in the emergency hospital of Tanta University, Egypt. East Mediterr Health J 2016; 21: 906-15.
15. Imo UO. Burnout and psychiatric morbidity among doctors in the UK: a systematic literature review of prevalence and associated factors. BJPsych Bull 2017; 41: 197-204.
16. Traner CB, Tolchin DW, Tolchin B. Medical ethics education for neurology residents: where do we go from here? Semin Neurol 2018; 38: 497-504.
17. O'Connor P, Lydon S, O'Dea A, Hehir L, Offiah G, Vellinga A, et al. A longitudinal and multicentre study of burnout and error in Irish junior doctors. Postgrad Med J 2017; 93: 660-4.
18. Dionigi A. The relationship between, burnout, personality, and emotional intelligence in clown doctors. Humor 2020; 33: 157-74.
19. McLeod SA, Sonnenberg LK. The emotional intelligence of pediatric residents–a descriptive cross-sectional study. Can Med Educ J 2017; 8: e44-51.
20. Puliyakkadi S, Chalil S, Abraham R, Dipin JP, Raj A, Dayan S. Dimensions of emotional intelligence of doctors in a tertiary care centre in kerala. J Integr Health Sci 2019; 7: 48-51.
21. Kousha M, Bagheri HA, Heydarzadeh A. Emotional intelligence and anxiety, stress, and depression in Iranian resident physicians. J Family Med Prim Care 2018; 7: 420-4.
22. Liu L, Xu P, Zhou K, Xue J, Wu H. Mediating role of emotional labor in the association between emotional intelligence and fatigue among Chinese doctors: a cross-sectional study. BMC Public Health 2018; 18: 881.