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Burnout and Coping Methods among Emergency Medical Services Professionals

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Purpose: To determine levels of burnout among emergency medical services (EMS) professionals and the coping strategies they use to alleviate burnout and measure the association between burnout vs sociodemographic and work-related characteristics and coping strategies of EMS professionals.

Methods: This was a cross-sectional survey study conducted among 270 active-duty EMS professionals. The Maslach Burnout Inventory (MBI) — Health Services Survey was used to assess burnout. There are three scales of burnout: depersonalization, emotional exhaustion, and personal achievement. Coping Methods Checklist (CMC) was used to assess coping strategies. Univariate descriptive statistics were used to explore sociodemographic characteristics of participants, level of burnout, and coping strategies. Primary bivariate analyses were used to determine variables significantly correlated with each of the three MBI scores. Multiple linear regression models were used to explore correlation between variables measured in the survey with each of the three MBI scales (emotional exhaustion, depersonalization, and personal accomplishment).

Results: EMS professionals perceived high levels of emotional exhaustion and depersonalization and low levels of personal achievement. The most frequently used coping strategies were talking with colleagues (87.4%), looking forward to being off duty (82.6%), and thinking about the positive benefits of work (81.1%). CMC7 (thinking about the positive benefits of work) contributed most to variations in emotional exhaustion, depersonalization, and personal achievement. Saudis had lower emotional exhaustion and depersonalization.

Conclusion: This study might provide evidence to formulate comprehensive training on how EMS workers can cope with burnout.

Keywords: burnout, coping strategies, Saudi Arabia

Introduction

In the past two decades, research has shifted from studying only victims who experience critical incidents to examine the stress experienced by those who have assisted the victims.[1] Emergency medical services (EMS) professionals are commonly the first in line to respond to a broad range of emergencies, from natural disasters and critical motor-vehicle accidents to minor injuries and illnesses. EMS professionals provide continuously lifesaving prehospital emergent care for individuals affected by traumatic and medical emergencies.[2]

Due to the unpredictable nature of their work, EMS professionals may be exposed to emotionally traumatic incidents while serving on duty.[3] Such incidents may involve child or elderly patient abuse, the death of a child, suicides,

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murders, and manmade or natural disasters.[4] Throughout such events, EMS professionals are obliged to sustain their focus and their capability to function while delivering quality patient care.[5,6] Three forms of stress experienced by EMS professionals are reminders of their own mortality, being personally attached to their patients, and having a great deal of uncertainty during an incident.[7]

Burnout is a syndrome described as serious emotional exhaustion with poor work adaptation owing to prolonged occupational stress. It has three main components: emotional exhaustion, depersonalization, and diminished feelings of personal accomplishment.[8] Burnout is a form of extended reaction to chronic job-related stressors, and consequently it has a distinctimportance in health care, where staff are experiencing both physical stress and psychological–emotional stress.[9]

Research supports the view that ambulance personnel use many tactics to cope with stressful incidents. First, once they are on the way to any event, they set themselves for the unfamiliar situation through holding an "inner dialogue." With a picturing of the coping form that awaits them, this dialogue assists them in remaining vigilant and handling anticipatory stress. Second, throughout the incident, ambulance personnel make sensible efforts to prevent emotional responses toward their patients througha cognitive empathy strategy, enabling their technical and cognitive means to cope with the incident. They comprehend patients' suffering and situation, but sustain emotional distance to reserve their capability to provide treatment. Third, communicating with anyone who might act as a vessel for emotions that might overcome ambulance personnel following the event aids in internalizing the stressful experience and assists in coping with tough memories.[10–12]

Chronic work stress among EMS personnel has been associated with burnout, decreased job satisfaction, fatigue, impaired physical health, higher percentages of job turnover, and significant posttraumatic stress symptomatology.[13,14] Our hypothesis was that there is a correlation between burnout vs sociodemographic characteristics and work-related factors and coping methods of EMS professionals. Our objectives were to determine levels of burnout among EMS professionals and the coping strategies they use to alleviate burnout and to measure the association between burnout vs sociodemographic and work-related characteristics and the coping strategies of EMS professionals.

Methods

Setting

This cross-sectional study recruited EMS personnel working in ambulance stations in Riyadh, Saudi Arabia (SA). Riyadh is divided into four areas: north, south, east, and west. The north area has eight ambulance stations with 147 EMS professionals, the south nine ambulance stations with 111 EMS professionals, the east eleven ambulance stations with 228 EMS professionals, and the west eight ambulance stations with 127 EMS professionals. Moreover, there are ten field supervisors. The total number of workers in all areas totaled 623.

Participants

This study targeted active-duty full-time licensed professionals with at least 1 year's operational experience and acting in patient care. Office-based paramedics and administrative personnel were excluded. A total of 64 EMS professionals were from the north (23.7%), 49 from the south (18.1%), 101 from the east (37.4%), and 56 from the west (20.7%) of Riyadh. Total participants numbered 270.

Data Sources/Measurement

A data-collection sheet was designed to collect sociodemographic characteristics and work-related data, eg, age, marital status, years of operational experience, occupation, shift work, and daily working hours (Appendix 1).

The Maslach Burnout Inventory (MBI) — Health Services Survey was used to assess burnout symptoms. This is a widely used survey tool that has been used among EMS personnel, nurses, and physicians in previous research.[15] Chronbach's α was useded for MBI in three dimensions: 0.79, 0.90, and 0.71. The MBI has 22 short statements that have six response options (0 = never, 1 = a few times a year or less, 2 = once a month or less, 3 = a few times a month, 4 = once a week, 5 = a few times a week, and 6 = everyday) to assess how often a person feels a certain way about his/her work. There are three scales of burnout: depersonalization (five items) measures loss of concern and compassion toward others; emotional exhaustion (nine items) measures feelings of being emotionally overextended, drained, and exhausted by one's work; and personal accomplishment (eight items) measures feelings of competence and successful achievement in one's work. High to low scores for each scale were summed. Burnout

levels among EMS personnel were characterized as high, moderate, and low, based on cutoff points using a scoring key.[15] The authors obtained the necessary copyright permission to use this scale.

The Coping Methods Checklist (CMC) is a brief scale that was developed and validated by Alexander and Wells in 1991 to determine to what extent police officers used and found helpful eight different methods of coping with their duties.[16] The CMC is used by emergency personnel (police, firefighters, and EMS professionals) to assess coping with chronic (everyday) occupation-related stress[17] and to evaluate the perceived helpfulness of several coping strategies to alleviate burnout. The CMC requires respondents to indicate how helpful eight coping strategies are to manage their burnout: CMC1, black humor; CMC2, talking with colleagues (other volunteers); CMC3, looking forward to being off duty; CMC4, keeping thoughts/feelings to oneself; CMC5, thinking about own family; CMC6, thinking about outside interests; CMC7, thinking about positive benefits of work; and CMC8, avoiding thinking about what you are doing. Response options used are "very helpful" (5), "helpful" (4), "unhelpful" (3), "very unhelpful" (2), "not sure" (1), or "did not use" (0) (Appendix 2). Respondents are classified into two categories according to the degree of "helpfulness" of the coping methods, ie, "helpful" vs "unhelpful".

A pilot study was conducted among 15 EMS professionals working in the same ambulance stations under study, but data from study participants were not included. The study was used to estimate the time needed to collect the data and test the clarity of the questionnaires, if any; however, no modifications were made.

Ethical Statement

Approval from Imam Abdulrahman Bin Faisal University (PGS-2019-03-161) and written informed consent from participants were obtained.

Study Size

All areas and subareas were included in the sample. Proportional allocation was used to calculate the sample of each subarea. It was difficult to use stratified random sampling or cluster sampling, due to the large number of areas and small number of workers (Appendix 3). However, the sample was comprehensive and universal, as it represented EMS professionals in Riyadh. The sample made up 44% of the total and produced significant relationships among study variables. The sample totaled 270, as calculated by GPower 3 software.

Statistical Methods

Data were analyzed using SPSS 24. Basic univariate descriptive statistics were used to explore sociodemographic and work-related characteristics, burnout, and coping strategies of the sample. Preliminary bivariate analyses were used to identify factors that were likely to be significantly correlated with each of the MBI scores. To choose independent variables (factors) for each multiple linear regression (one for each of three MBI scales), a series of independent-sample *t*-tests were executed using sociodemographic characteristics and work-related data (Saudi vs non-Saudi, married vs unmarried, years of service 1–5 years vs 6 or greater), and each of the eight methods of coping (helpful vs not helpful) with the MBI scales. If there was not at least a marginally significant difference ($P<0.05$) in a dependent variable between groups for each factor, then the factor was not included in multiple linear regression. Multiple linear regression was done to explore correlations between multiple factors measured in this survey with each of the MBI scales.

Results

Table 1 reveals that most of participants were from east Riyadh (37.4%), technicians (73.3%), had diplomas (62.2%), Saudi (91.9%), and had ≥6 years of work experience in EMS (60.4%). Table 2 demonstrates that a majority of participants perceived high levels of depersonalization (40%) and emotional exhaustion (63%). In addition, many participants perceived low levels of personal achievement (41.9%). Table 3 illustrates that the most frequently helpful coping strategies perceived to alleviate burnout were CMC2 (talking with colleagues, 87.4%), CMC3 (looking forward to being off duty, 82.6%), then CMC7 (thinking about positive benefits of work, 81.1%).

Table 4 demonstrates that there were significant differences in emotional exhaustion between Saudis vs non-Saudis ($P=0.008$) and those who perceived that CMC7 was helpful vs unhelpful ($P=0$). Table 5 shows that there were significant differences in depersonalization between Saudis vs non-Saudis ($P=0.005$) and those who perceived that CMC7 was helpful vs unhelpful ($P=0$). Table 6 revealed that there were significant differences in personal achievement between those who perceived that CMC2 was helpful vs unhelpful ($P=0.005$) and those who perceived that CMC7 was helpful vs unhelpful ($P=0$).

Table 1 Distribution of Emergency Medical Services Professionals by Socio-Demographic Characteristics and Work-Related Data (2019)

Sociodemographic Characteristics		
Region	**n**	**%**
North	64	23.7
South	49	18.1
East	101	37.4
West	56	20.7
Job		
Technician	198	73.3
Specialist	58	21.5
Physician	14	5.2
Nationality		
Saudi	248	91.9
Non-Saudi	22	8.1
Marital status		
Single	100	37.0
Married	167	61.9
Divorced	2	0.7
Widowed	1	0.4
Age, years		
22–29	113	41.9
30–38	132	48.9
39–52	25	9.3
Work-related data		
Years of experience		
1–5	107	39.6
6 and more	163	60.4
Education		
Diploma	168	62.2
Bachelor's degree in emergency medical services	88	32.6
Master's	6	2.2
Residency	8	3.0
Shift-work schedule		
Alternating	270	100
Daily working hours		
12	270	100

Table 2 Maslach Burnout Inventory Scale Among Emergency Medical Services Professionals (2019)

	n	%
Depersonalization		
High	108	40.0
Moderate	80	29.6
Low	82	30.4
Emotional exhaustion		
High	170	63.0
Moderate	70	25.9
Low	30	11.1
Personal accomplishment		
High	58	21.5
Moderate	99	36.7
Low	113	41.9

Table 3 Coping Strategies Used by Emergency Medical Services Professionals (2019)

	n	%
CMC1: Black humor	114	42.2
CMC2: Talking with colleagues (other volunteers)	236	87.4
CMC3: Looking forward to being off duty	223	82.6
CMC4: Keeping thoughts/feelings to oneself	166	61.5
CMC5: Thinking about own family	208	77.0
CMC6: Thinking about outside interests	167	61.85
CMC7: Thinking about positive benefits of work	219	81.1
CMC8: Avoiding thinking about what you are doing	99	36.67

Abbreviation: CMC, Coping Methods Checklist.

Table 7 shows a weak positive correlation between all predictors and emotional exhaustion among EMS personnel (r=0.278), and all predictors explained about 6.3% of the variation in emotional exhaustion among EMS personnel, values of $F_{4,\ 264}$ (P<0.05) conveyed that the model fit the data and R and adjusted R^2 values were significantly not equal to zero. Unstandardized β-coefficients showed that CMC7 had a significant negative effect on emotional exhaustion (P<0.05) and a one-unit change in its value would cause a decrease in emotional exhaustion scores of 3.596. Independent variables (nationality and marital status) had a significant effect on emotional exhaustion (P<0.05).

Accordingly, if EMS personnel were Saudis, then emotional exhaustion scores decreased by 6.62; however, if EMS personnel were married, emotional exhaustion scores increased by 2.951. Moreover, the values of standardized β-coefficients showed that CMC7 was the predictor that contributed most to variation in emotional exhaustion (18%), then nationality (17%) and marital status with 13%.

Table 8 demonstrates a weak positive correlation between all predictors and depersonalization among EMS personnel (r=0.307), and all predictors explained about 8% of the variation in depersonalization among EMS personnel. Values of $F_{4,\ 263}$=6.824 (P<0.05) conveyed that the model fit the data, and R and adjusted R^2 values were significantly not equal to zero. Unstandardized

Table 4 Bivariate Analysis of Emotional Exhaustion and Sociodemographic Characteristics, Work-Related Data, and Coping Methods (2019)

	n	Mean ± SD	*P*-value
Nationality			
Saudi	348	31.35±11.13	0.008
Non-Saudi	22	24.91±7.70	
Years of operational experience			
1–5	107	29.88±11.61	0.299
6 and more	161	31.31±10.60	
Marital status			
Not married	103	29.17±11.34	0.054
Married	167	31.84±10.72	
CMC1: Black humor			
Unhelpful	79	32.11±10.96	0.183
Helpful	114	30.02±10.56	
CMC2: Talking with colleagues (other volunteers)			
Unhelpful	18	33.28±11.31	0.303
Helpful	236	30.47±11.1	
CMC3: Looking forward to being off duty			
Unhelpful	29	31.62±9.88	0.814
Helpful	223	31.11±11.08	
CMC4: Keeping thoughts/feelings to oneself			
Unhelpful	68	30.50±10.55	0.588
Helpful	166	31.34±10.89	
CMC5: Thinking about own family			
Unhelpful	29	33.34±10.78	0.243
Helpful	208	30.78±11.11	
CMC6: Thinking about outside interests			
Unhelpful	65	30.48±10.08	0.424
Helpful	167	31.72±10.79	
CMC7: Thinking about positive benefits of work			
Unhelpful	35	37.34±11.28	0
Helpful	219	29.64±10.6	
CMC8: Avoiding thinking about what you are doing			
Unhelpful	83	29.33±10.42	0.094
Helpful	99	31.98±10.74	

Abbreviation: CMC, Coping Methods Checklist.

Table 5 Bivariate Analysis of Depersonalization and Sociodemographic Characteristics, Work-Related Data, and Coping Methods (2019)

	n	Mean ± SD	*P*-value
Nationality			
Saudi	248	11.51±7.12	0.005
Non-Saudi	22	7.00 ±5.59	
Years of operational experience			
1–5	107	10.75±7.68	0.513
6 and more	161	11.34 ±6.84	
Marital status			
Not married	103	10.82±7.44	0.555
Married	167	11.35±7.03	
CMC1: Black humor			
Unhelpful	79	10.78±6.71	0.242
Helpful	114	12.01±7.40	
CMC2: Talking with colleagues (other volunteers)			
Unhelpful	18	13.94±6.94	0.065
Helpful	236	10.70±7.15	
CMC3: Looking forward to being off duty			
Unhelpful	29	11.03±6.03	0.920
Helpful	223	11.17±7.22	
CMC4: Keeping thoughts/feelings to oneself			
Unhelpful	68	11.71±6.99	0.470
Helpful	166	10.97±7.09	
CMC5: Thinking about own family			
Unhelpful	29	13.90±8.57	0.177
Helpful	208	10.72±6.84	
CMC6: Thinking about outside interests			
Unhelpful	65	11.35±6.71	0.791
Helpful	167	11.62±7.00	
CMC7: Thinking about positive benefits of work			
Unhelpful	35	16.34±5.96	0
Helpful	219	10.19±6.93	
CMC8: Avoiding thinking about what you are doing			
Unhelpful	83	10.20±7.01	0.054
Helpful	99	12.21±6.89	

Abbreviation: Coping Methods Checklist.

β-coefficients showed that CMC7 had a significant negative effect on depersonalization ($P<0.05$), such that a one-unit change in its value would cause a decline in depersonalization scores of 2.449. The independent variable nationality had a significant negative effect on depersonalization ($P<0.05$). Consequently, if EMS personnel were

Table 6 Bivariate Analysis of Personal Achievement and Sociodemographic Characteristics, Work-Related Data and Coping Methods (2019)

	n	Mean ±SD	*P*-value
Nationality			
Saudi	248	36.20±7.80	0.177
Non-Saudi	22	35.50±5.45	
Years of operational experience			
1–5 years	107	36.71±8.54	0.634
6 years and more	161	36.25±7.02	
Marital status			
Not married	103	36.17±8.80	0.723
Married	167	36.52±6.87	
CMC1: Black humor			
Unhelpful	79	35.76±8.02	0.224
Helpful	114	37.07±7.38	
CMC2: Talking with colleagues (other volunteers)			
Unhelpful	18	31.61±8.63	0.005
Helpful	236	36.86±7.51	
CMC3: Looking forward to being off duty			
Unhelpful	29	36.24±7.87	0.991
Helpful	223	36.22±7.72	
CMC4: Keeping thoughts/feelings to oneself			
Unhelpful	68	36.43±7.11	0.885
Helpful	166	36.59±8.11	
CMC5: Thinking about own family			
Unhelpful	29	36.03±5.93	0.800
Helpful	208	36.42±7.85	
CMC6: Thinking about outside interests			
Unhelpful	65	35.98±7.32	0.787
Helpful	167	36.29±7.80	
CMC7: Thinking about positive benefits of work			
Unhelpful	35	32.00±6.57	0
Helpful	219	37.50±7.34	
CMC8: Avoiding thinking about what you are doing			
Unhelpful	83	35.89±8.05	0.500
Helpful	99	36.66±7.21	

Abbreviation: CMC, Coping Methods Checklist.

Saudis, the of depersonalization scores decreased by 3.935. However, CMC2 had a marginally significant negative effect on depersonalization, such that a one-unit change in its value would cause a decline in depersonalization scores of 1.664. Moreover, standardized β-coefficients showed that CMC7 was the predictor that contributed most to variation in depersonalization — 18.5%. This was followed by nationality (15%) and CMC2 (12%).

Table 7 Multiple Linear Regression of Predictors of Emotional Exhaustion Among Emergency Medical Services Professionals in Saudi Arabia (2019)

	Unstandardized Coefficients		Standardized Coefficients	t	*P*
	β	SE	β		
Constant	28.825	3.501		8.233	0
CMC7*	−3.596	1.203	−0.178	−2.991-	0.003
CMC8**	0.442	0.787	0.033	0.561	0.575
Saudi	−6.620	2.412	−0.165	2.744	0.006
Married	2.951	1.362	0.130	2.166	0.031

Notes: R=0.278, adjusted R^2=0.063, $F_{4,\ 264}$=5.533; P=0. *Thinking about positive benefits of work; avoiding thinking about what you are doing.

Table 8 Multiple Linear Regression of Predictors of Depersonalization Among Emergency Medical Services Professionals in Saudi Arabia (2019)

	Unstandardized Coefficients		Standardized Coefficients	t	*P*
	β	SE	β		
Constant	21.951	2.484		8.836	0
CMC2*	−1.664	0.857	−0.118	−1.941	0.053
CMC7**	−2.449	0.804	−0.185	−3.046	0.003
CMC8***	0.763	0.510	0.088	1.497	0.135
Saudi	−3.935	1.545	−0.150	−2.546	0.011

Notes: R=0.307, adjusted R^2=0.080, $F_{4,\ 263}$=6.824; P0. *Talking with colleagues (other volunteers); **thinking about positive benefits of work; ***avoiding thinking about what you are doing.

Table 9 revealed a weak positive correlation between all predictors and personal achievement among EMS personnel (r=0.292), and all predictors explained about 7.8% of variation on personal achievement between EMS personnel, values of $F_{2,\ 265}$=12.331 (P<0.05) revealed that the model fit the data, and R and adjusted R2 were significantly not equal to zero. Unstandardized β-coefficients showed that CMC7 had a significant positive effect on personal achievement (P<0.05), such that a one-unit change in its value would cause an increase in personal achievement scores of 3.821, whereas CMC2 had an insignificant positive effect on personal achievement. Moreover, standardized β-coefficients showed that CMC7 accounted for the largest contribution to variation in personal achievement (27%), followed by CMC2 (6%).

Table 9 Multiple Linear Regression of Predictors of Personal Achievement Among Emergency Medical Services Professionals in Saudi Arabia (2019)

	Unstandardized Coefficients		Standardized Coefficients	t	P
	β	SE	β		
Constant	28.151	1.989		14.151	0
CMC2*	0.864	0.910	0.058	0.950	0.343
CMC7**	3.821	0.851	0.272	4.487	0

Notes: R=0.292, adjusted R^2=0.078, $F_{2,\ 265}$=12. 331; P=0. *Talking with colleagues (other volunteers); *thinking about positive benefits of work.

Discussion

This study focused on studying burnout levels and coping strategies among EMS workers in Riyadh, based on a representative sample of EMS personnel. Moreover, it explored the relationship between burnout among EMS personnel and demographic and work-related characteristics, as well as coping strategies used to alleviate burnout. Findings revealed that EMS professionals perceived high levels of emotional exhaustion and depersonalization and low levels of personal achievement. The most frequently used coping strategies were CMC2 (talking with colleagues [other volunteers]), CMC3 (looking forward to being off duty, and CMC7 (thinking about positive benefits of work). CMC7contributed most to variations in emotional exhaustion, depersonalization, and personal achievement. In addition, Saudis had lower emotional exhaustion and depersonalization. This study supports the view that working in an emergency ambulance station is associated with high risk and job stress. EMS professionals find themselves in the most stressful workplace and thus are at high burnout risk, because of an inadequate working environment such as tight work schedules, health and safety, and clashes with patients or their relatives, as well as emotional circumstances like case acuity and crucial care judgments.[18]

Alarming percentages of EMS personnel scored highly on both emotional exhaustion and depersonalization (63% and 40%, respectively). In addition, a significant proportionperceived low levels of personal achievement (41.9%). Results of other studies are controversial where different burnout rates have been reported. Some had reported alarmingly higher rates of burnout among emergency professionals, while others reported lower rates.[19–21] EMS personnel in Suffolk County, New York working in health-care services perceived high rates of depersonalization, emotional exhaustion, and personal accomplishment (99%, 92%, and 76% respectively).[17] In southern and southwestern regions in SA, emergency physicians and nurses have been examined according to their burnout syndrome. Most perceived high emotional exhaustion (88.7%), while 20.6% experienced high depersonalization and 41.1% had low personal accomplishment.[20] At King Abdulaziz Medical City, Riyadh, emergency medical physicians scored highly on emotional exhaustion and depersonalization (40% each), while 34% were in the low-risk zone of the personal achievement subscale.[19] In Egypt, 46.9% ofemergency professionals showed perceived high emotional exhaustion, 14.4% high depersonalization, and 97.7% low personal achievement.[21] Meanwhile, in Turkey 44.7% of emergency staff perceived high emotional exhaustion, 33.2% high depersonalization, and 28% low personal achievement.[22] Differences in prevalence on burnout scales among countries may be attributed to the number of accidents and their severity, acuity of cases, number of ambulance professionals, working conditions, presence or absence of moral support from managers, financial incentives, and presence or absence of days off. This needs further research.

EMS personnel adopted different coping methods to alleviate burnout. The most frequently used coping strategies were CMC2 (87.4%), CMC3 (82.6%), and CMC7 (81.1%). Similar results were found in Suffolk County, New York.[17] The present findings demonstrated that CMC7 contributed most to variations in emotional exhaustion, depersonalization, and personal achievement. This could be attributed to the service itself, as it is a continuously lifesaving job, requiring empathy of EMS professionals with case acuity, and the job is not administrative/office work. Also, EMS professionals practice patient care at the pre hospital level. In addition, the authority of the Saudi Red Crescent provides high moral support, high salary, and 4 days off after each 4 consecutive working days.

A number of studies have documented the relationship between burnout among EMS professionals, demographic attributes, and coping methods used. Research has confirmed that both non–job-related and job-related attributes are linked to burnout of EMS professionals.[23,24] A study in Canada revealed that task-oriented coping strategies were associated with a risk decrease for burnout, while an increase in risk burnout was associated with emotional coping strategies.[25] Additionally, years of work experience, age, violence at work, supervision, work activities, and work burden were found to be the most significant

factors affecting burnout among emergency professionals in Egypt.[21] Moreover, the most important determinants of burnout among emergency professionals in Turkey were sex, age, and economic well-being.[22] High emotional exhaustion for workers in the major cities of SA, ie, Makah, Jeddah, and Riyadh, were influenced by young age (ie, ≤25 years), being non-Saudi, female, and less experienced, working additional hours, and among on-call emergency physicians compared to others.[26] Another study in Abha and Khamis Mushait cities concluded that burnout was strongly affected by place of work, male sex, smoking, and those taking sleeping-disorder medications, while job-related variables were not correlated with burnout.[20] However, the present study revealed that work experience, age, and most coping strategies did not affect MBI scales of burnout. Regarding nationality, the present study demonstrated that Saudis were associated with low emotional exhaustion and depersonalization. This could be attributed to the effect of emotional support of citizenship. Studies have shown that a beneficial coping mechanism is social support, which is considered one of the key contributing factors to chronic stress.[27]

Limitations

The cross-sectional design demonstrates association, but not causation. However, this study could be furthered using a longitudinal cohort design to examine the causation of burnout among EMS workers in SA. This study was conducted in Riyadh, and results cannot be generalized to the national level. However, it could be applied at the national level to capture the level of burnout among EMS personnel in SA. The present study could not measure the effect of working hours or shift-work schedules the MBI, because all participants were working 12 hours daily for 4 consecutive days. This may be attributed to the fact that the time of data collection was during the alternating shift.

Conclusion

This study determined levels of burnout faced by EMS workers and the most commonly used coping methods. In addition, the study measured the correlation of burnout with sociodemographic and work-related characteristics and the coping strategies of EMS personnel. MostEMS workers had high levels of burnout. Three coping methods were frequently used: CMC2 (talking with colleagues [other volunteers]), CMC3 (looking forward to being off duty), and CMC7 (thinking about positive benefits of work). CMC7 contributed most to variations in emotional exhaustion, depersonalization, and personal achievement. Moreover, Saudi citizens had lower emotional exhaustion and depersonalization.

This study might provide evidence to formulate comprehensive training on how EMS workers can cope with burnout. In addition, it will also help policy-makers and managers of ambulance stations keep these positive benefits of work and comprehend experiences of the ambulance workers in managing existing job demands and the coping mechanisms they use during their practice. This may resolve the problems of organizational commitment, absenteeism, and staff contentment, and may decrease costs linked to short- and long-term disability breaks.

Disclosure

The authors report no conflicts of interest in this work.

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