

## EMERGENCY SPECIALTY AND BURNOUT SYNDROME IN PERUVIAN NURSES: A NATIONAL SURVEY



### To the Editor:

We have read with interest the recently published article by Zafar et al., which found that 57.1% and 56.9% of emergency physicians score high in emotional exhaustion and depersonalization dimensions, respectively, of burnout syndrome (BS) (1). In addition, emergency physicians were more likely to report higher scores of emotional exhaustion (adjusted odds ratio [aOR] 2.48; 95% confidence interval [CI] 1.1–5.4) than other specialties (1). We would like to comment about BS and its dimensions in specialized nurses (emergency vs. others) from Peru.

We analyzed the prevalence of burnout syndrome and its scales from the National Satisfaction Survey of Health Care Users (ENSUSALUD - 2014), a public database that includes data on 5067 health professionals from 181 health facilities in 24 departments, urban and rural, in Peru (2). The sampling was probabilistic, stratified, and performed in public and private health centers. There were 2837 nurses participating in the survey; for this purpose we included only specialized nurses (n = 1446). We calculated the prevalence of BS and its three dimensions: emotional exhaustion (nine items), depersonalization (five items), and personal accomplishment (eight items) using the Maslach Burnout Inventory-Human Services Survey (MBI-HSS), analyzed as described by Maslach et al. (3). The results are shown in Table 1. Crude odds ratios (ORs) and aORs were calculated using logistic regression. Crude ORs were adjusted by age, work hours, salary, satisfaction, and complexity of health facility.

In total, 282 (19.5%) nurses had an emergency medicine specialty, and BS prevalence was 2.8% among those nurses. Scores in emotional exhaustion (7.1% vs. 57.1%, respectively) and depersonalization (14.2% vs. 56.9%, respectively) from the emergency nurses from Peru were eight times lower than those observed by Zafar et al. in emergency physicians in Pakistan (1). Emergency nurses were more likely to report high scores in depersonalization (aOR 1.57; 95% CI 1.04–2.35), which contrasts with the Pakistan experience.

The results of Pakistan's emergency health personnel survey show higher levels of BS in all dimensions compared to Peru. In part, this can be explained by the sampling, because the Peruvian survey collected a nationwide, representative sample of nurses working in 181 health facilities in different health facility sizes, whereas the sample of emergency physicians from Pakistan considered only four high-complexity hospitals with high numbers of beds. Another reason could be that Peru is one of the countries in Latin America with a lower prevalence of BS (4). On the other hand, whereas emotional exhaustion seems to be the main dimension of BS, in our analysis the only dimension linked with an emergency specialty was depersonalization (5). This could be explained by external variables affecting BS in health personnel, such as inappropriate work environment, low income, and variable shift work.

Even though in our results there was no significant association found between global BS, or its two dimensions (emotional exhaustion and low sense of personal accomplishment), and emergency specialty, prevalence was higher among emergency nurses. This trend is similar compared with other studies, and future interventions to reduce BS in emergency health personnel are needed (6).

**Table 1. Association Between Burnout and its Dimensions with Emergency Specialty in Specialized Nurses from Peru (n = 1446)**

	Positive*		Negative*		OR	95% CI	p Value	aOR†	95% CI	p Value
	n	%	n	%						
<b>Burnout</b>										
Emergency nurses	8	2.8	274	97.2	1.52	0.67–3.44	0.320	1.44	0.60–3.44	0.414
Other specialties	22	1.9	1142	98.1	1.00	Reference		1.00	Reference	
<b>Emotional exhaustion</b>										
Emergency nurses	20	7.1	262	92.9	0.98	0.59–1.62	0.942	1.15	0.68–1.98	0.594
Other specialties	84	7.2	1080	92.8	1.00	Reference		1.00	Reference	
<b>Depersonalization</b>										
Emergency nurses	40	14.2	242	85.8	1.49	1.02–2.20	0.042	1.57	1.04–2.35	0.029
Other specialties	116	10.0	1048	90.0	1.00	Reference		1.00	Reference	
<b>Personal accomplishment</b>										
Emergency nurses	63	22.3	219	77.7	1.29	0.94–1.77	0.114	1.31	0.95–1.82	0.102
Other specialties	212	18.2	952	81.8	1.00	Reference		1.00	Reference	

OR = odds ratio; CI = confidence interval.

\* Cutoffs points for each dimension: emotional exhaustion > 26, depersonalization > 9 and personal accomplishment < 34 (2).

† aOR = adjusted odds ratio: age, work hours, salary, satisfaction and complexity of health facility.

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large sample of U.S. physicians (3,4). In that same study, the prevalence of burnout among emergency physicians was well over 60%. The prevalence of burnout in some specialties is high enough to have warranted a call for action from professional groups (5).

Unfortunately, the prevalence of burnout among physicians working in the low- and middle-income countries has remained under-explored. We think that the true prevalence of burnout syndrome among Pakistani health care providers is likely to be closer to the rate we have reported (ranging between 36% and 57% for emotional exhaustion). Two recent papers from Pakistan have also found rates of burnout among medical residents that are closer to the rates we have reported (6,7). Given the paucity of work on burnout among health care providers in the low- and middle-income countries, we are unable to comment on why some studies have found significantly lower rates. A better understanding of these cross-national differences is a very interesting area of inquiry and could also suggest ways to reduce the burden of burnout among frontline health care providers.

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## RESPONSE TO DR. BEAS ET AL.



## To the Editor:

We thank Beas et al. for sharing the prevalence of burnout syndrome among emergency medicine specialized nurses in Peru. They have raised an important point regarding the variation in reported prevalence of burnout syndrome among emergency care providers from different parts of the world despite the use of similar screening instruments. They have cited the work of Grau et al., which also found considerable variation in the prevalence of burnout syndrome among health care providers in several Latin American countries, ranging from 2.5% in El Salvador to 14.4% in Argentina (1).

As we pointed out in the discussion section of our report, international reviews have tended to put the prevalence of burnout among health care providers somewhere between 30% and 60% (2). A recent U.S. study reported the overall prevalence of emotional exhaustion to be 37.9% among a

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