SHORT COMMUNICATION

Burn out among the paediatric surgeons of Pakistan

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Abstract

This study was to assess the prevalence of Burnout syndrome among physicians, medical students and other healthcare professionals as they are considered more prone to it. It has been reported to be as high as >85% among surgeons, due to the sensitive and exhaustive nature of their job. The objective was to determine the prevalence of burnout among Paediatric surgeons (PS) of Pakistan. For this cross-sectional study, all PS working in Pakistan were included. In order to assess burnout, Maslach Burnout Inventory (MBI) was used. Burnout was found among 15% of the PS. In this group, it was also found that 17.5% of PS had high Emotional Exhaustion (EE), 12.5% had high Depersonalisation (DEP) and 30% had low Personal and Professional Achievement (PPA). Also 35% of PS were experiencing burnout in at least one domain. The significant protective factors we found in this group was having a non-doctor spouse for low EE (P=0.014), FCPS fellowship degree for low DEP (P=0.011), more than 2 post-graduation degrees for high PPA (P=0.008) and private practice for high PPA (P=0.020). We concluded that a large number of PS are facing burnout, and at the same time, a large proportion of them are at risk of moderate levels burnout from EE, DEP and PPA.

Keywords: Paediatric Surgeons; Maslach Burnout Inventory; Pakistan, Burnout among Paediatric Surgeons.
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Introduction

Burnout is not a phenomenon; rather it is called Burnout Syndrome as it encompasses many aspects of stress. Burnout is defined as a psychological syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that occurs among individuals who work with other people, particularly in conflicting or otherwise critical situations.[1] It is most commonly found among those workers who have to deal with the public or have to face challenging events on a daily basis. This is the primary reason for burnout syndrome observed among healthcare workers including doctors, nurses and other ancillary staff.[2] It ultimately leads to fatigue, low performance in the workers, decreased career satisfaction and other stress-related health problems.[3] In a recent systematic review that included 182 studies involving 109,628 individuals in 45 countries, burnout was found ranging between 0% - 80.5% among physicians in different specialties.[4]

Generally, physicians and doctors are found to be suffering more from burnout than other general working staff.[5] However, among physicians, the surgeons experience more burnout than other specialties. It is due to the fact that they face considerable more stress in emergency and operation theaters, and their jobs are more demanding and challenging than other co-workers.[6] Among surgeons, the paediatric surgeons (PS), have to deal with mini-patients who are unable to explain what they are experiencing. Ultimately it is entirely the responsibility of the surgeon to deduce the reasons behind a weeping child. It makes their jobs more demanding and stressful. In order to assess burnout, many tools are available, however, the most commonly used and validated tool for this purpose in Maslach Burnout Inventory (MBI).[7] It is a 22-items scale with each item scored on the Likert scale. It assesses the burnout of the participants in 3 dimensions: Emotional Exhaustion (EE) which is characterised as energy depletion; Depersonalisation (DEP) which is referred to as the individual detaches himself from job and Personal and Professional achievement (PPA) by which the person thinks that he/she has not achieved their goals in life. Very little literature is available regarding burnout among physicians from Pakistan. A few studies have been done among medical students[8] and some for residents.[9] However, consultants, and particularly PS are ignored entirely in this regard. So we planned this study with the objective of ascertaining the prevalence of burnout among PS in Pakistan and to identify the risk factors among them for burnout.

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Methods and Results

After approval from the ethical review board, this cross-sectional study was conducted at Rawalpindi Medical College, Rawalpindi for a duration of 2 months, from January, 2017 to February, 2017. We included all PS working in Pakistan. They were all emailed a designed proforma and contacted via mobile for confirmations of reception of our email. As the questionnaire was anonymous so it was mentioned in email that filling the questionnaire meant that they are granting permission to be included in the study. Our proforma consisted of two portions. Part 1 included basic demographic data and other work related variables. The second portion of the proforma consisted of using MBI the license for which was purchased from the authors and was then employed. MBI is a validated tool and has been used previously for a study conducted in our country,[10] so it was not validated again for this particular study. It assesses the burnout in 3 subscales including EE, DEP and PPA. All the questions are answered at a 5-point Likert scale. Also in this study, we labelled burnout if EE was high, and either DEP was high or PPA was low. All the data was analysed using Statistical Package for the Social Sciences (SPSS) version 20. The qualitative variables were analysed using frequencies and quantitative variables as mean ± SD. Frequency was calculated for participants in categories of EE, DEP and PPA. All the demographic factors in Part 1 of the study were stratified for all subscales of burnout using chi-square analysis and taking $P<0.05$ as significant. A total of 112 paediatric surgeons were contacted via email and proforma were sent to them. We received 41 responses which brought the response rate to 36.6%. Among these 41 responses, 1 proforma was partially filled so it was excluded and while the remaining 40 responses were included for the study. The mean age of participants in this study was 44.89 ± 8.50 years with the age range being 31-58 years. Most of the respondents (n=34) were male and among these, 32 participants (80%) had a Fellowship of College of Physicians and Surgeons (FCPS) degree and 13 participants (32.5%) had two or more post-graduate degrees, as indicated in the demographic details given in Table 1.

The burnout in the participants was assessed using MBI. Burnout as defined in operational definition was found in 6 out of 40 PS (15%). Also 17.5% respondents had high EE, 12.5% had high DEP and 30% had low PPA, details as provided in Figure. Also 14 of 40 respondents (35%) were

Table-1: Demographic details of participants in this study [(FRCS: Fellow of Royal College of Surgeons, FCPS: Fellow of College of Physicians and Surgeons)].

Age	44.89 ± 8.50
Gender	
Male	34 (85%)
Female	6 (15%)
Post-graduate Experience	
0-5 years	14 (35%)
6-10 years	7 (17.5%)
11-20 years	14 (35%)
>20 years	5 (12.5%)
Fellowship degree	
FCPS	32 (80%)
Master of Surgery	7 (17.5%)
FRCS	7 (17.5%)
Do you have two or more post-graduation degrees?	
Yes	13 (32.5%)
No	27 (67.5%)
Religion	
Islam	39 (97.5%)
Hindu	1 (2.5%)
Marital status	
Single	2 (5%)
Married	38 (95%)
Is your spouse a doctor?	
Yes	14 (36.8%)
No	24 (63.1%)
Time to reach hospital?	
Less than 15 minutes	14 (35%)
16-30 minutes	18 (45%)
30 minutes- 1 hour	6 (15%)
More than 1 hour	2 (5%)
Job status	
Adhoc	2 (5%)
Contract	7 (17.5%)
Permanent	30 (75%)
Private	1 (2.5%)
Working hours/weak	
50-60 hours	22 (55%)
61-80 hours	8 (20%)
More than 80 hours	10 (25%)
Do you do private practice?	
Yes	31 (77.5%)
No	9 (22.5%)
Number of hospitals, you visit daily?	
1 hospital	22 (70.9%)
2 hospitals	8 (25.8%)
3 or more hospitals	1 (3.2%)
Are you satisfied after choosing this specialty?	
Yes	37 (92.5%)
No	3 (7.5%)
Income per month?	
<60 thousand PKR	8 (20%)
60-100 thousand PKR	21 (52.5%)
>100 thousand PKR	11 (27.5%)
Do you smoke?	
Yes	34 (85%)
No	6 (15%)

FRCS: Fellow of Royal College of Surgeons,
FCPS: Fellow of College of Physicians and Surgeons.

Table-2: Stratification of 3 subscales of Burnout with respect to demographic factors

Risk Factor	Emotional Exhausion			*p*-value	Depersonalization			*p*-value	Personal and Professional Accomplishment			*p*-value
	Low	Moderate	High		Low	Moderate	High		Low	Moderate	High	
Gender				NS				NS				NS
Male	17	11	6		19	10	5		10	12	12	
Female	3	2	1		4	2			2		4	
Fellowship degree				NS				0.011				NS
FCPS	17	9	6		21	6	5		11	8	13	
MS	3	3	1		1	6			1	4	2	
FRCS		1			1						1	
More than 2 PG degrees				NS				NS				0.008
Yes	13	9	5		13	9	5		7		6	
No	7	4	2		10	3			5	12	10	
Marital Status				NS				NS				NS
Single	2					2				1	1	
Married	18	13	7		23	10	5		11	11	16	
Spouse as doctor				0.014				NS				NS
Yes	8	1	5		6	6	2		7	3	4	
No	12	12	2		17	6	3		5	9	12	
Private Practice				NS				NS				0.020
Yes	16	8	7		16	11	4		10	12	9	
No	4	5			7	1	1		2		7	
Number of hospitals being visited				NS				NS				NS
1	11	5	6		13	6	3		9	5	8	
2	5	3			3	5			1	6	1	
3 or more			1				1			1		
Satisfied after chosing PS				NS				NS				NS
Yes	18	12	7		21	11	5		12	11	14	
No	2	1				2	1		0	1	2	
Income/month				NS				NS				NS
<60 K PKR	4	4			5	2	1		1	3	4	
60-100 K PKR	11	4	6		12	5	4		9	6	6	
>100 K PKR	5	5	1		6	5			2	3	6	
Smoker				NS				NS				NS
Yes	3	1	2		2	2	2		1	3	2	
No	16	12	5		21	9	3		10	9	14	

experiencing burnout in at least one domain of MBI. All the three subscales were stratified for demographic details in order to find the risk factors. It was found that having a non-doctor spouse was a low risk factor for EE (P=0.014), FCPS fellowship degree for low DEP (P=0.011), more than 2 post-graduation degrees for high PPA (P=0.008) and private practice for high PPA (P=0.020). These main significant factors are detailed in Table 2.

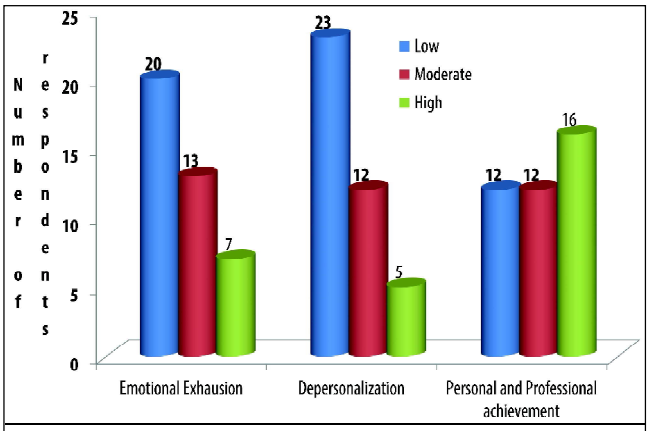

Figure: Burnout subscales as assessed of PS.

Limitation

One limitation of this study was low response rate (40%). Although authors had tried to improve it but it was not possible.

Conclusion

We conclude that although only 15% of PS turned out having burnout in this study, a large number are at risk of developing it. Also having more professional degrees and having private practices were associated with higher

PPA. So we must therefore encourage our PS to acquire more degrees in the field and at the same time, be paid more by the hiring agencies to reduce burnout among them.

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