Are orthopedic surgeons prone to burnout?

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ABSTRACT

Objective: Burnout syndrome (BOS) is a state of physical, and emotional or mental exhaustion, depersonalization, and low personal accomplishment. Health care givers are most prone to suffer from BOS. There are no studies to date on BOS among trained orthopedic, and trauma surgeons. The objective of this study, was to assess the prevalence of BOS among the orthopedic surgeons in the Eastern province of Saudi Arabia.

Methods: This study was conducted among the orthopedic surgeons of the Eastern province of Saudi Arabia between September 2003 and October 2004. One hundred and two questionnaires of the Maslach Burnout Inventory (MBI) were sent to the qualified orthopedic surgeons with a self-addressed stamped envelope, from the Department of Orthopedic Surgery, King Fahd Hospital of the University, Al-Khobar. Three factors of MBI, which were assessed, were emotional exhaustion, depersonalization, and personal accomplishment. The data were entered in the database, and analyzed using Statistical Package for Social Science.

Results: Sixty-nine (67.6%) of the orthopedic surgeons completed the questionnaire. The average age was 45.72 ± 6.82 (33-57) years. Thirty-five (50.7%) were found to be in a state of emotional exhaustion, 59.4% depersonalized, and 17% had low state of personal accomplishment. Doctors working in the government hospitals fared better than those in the private sector.

Conclusion: Burnout syndrome is common among orthopedic surgeons working in the Eastern provicne Saudi Arabia. It is emphasized that awareness of the problem should be highlighted; programs need to be put in place to reduce the prevalence of burnout syndrome.

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Herbert Freudenberger[1] the famous physician and psychoanalyst coined the word "Burn Out". Burnout syndrome (BOS) has many definitions but the most commonly accepted is that "It is a state of physical, emotional or mental exhaustion caused by long-term involvement in situations that are emotionally demanding".[2,3] Burnout produces both physical, and behavioral changes, which can be assessed quantitatively, and qualitatively. Potter[4] reported that no one is immune from job burnout but doctors, nurses, counselors, and police officers are the hardest hit. Reports indicate that burnout to be most common among medical profession, this was suggested to be due to the long working hours, high pressure of work, and emotional contact with patients.[5-8] Gundersen[9] after an extensive review of the literature believed that the incidence of burnout to be in the range of 25-60%. It was suggested that burnout was not limited to junior doctors but affected all doctors irrespective of specialty. It was found that the incidence was quite high (76%) among the resident doctors.[10] DeValk and Werner[11] reported that in Netherlands over 4.7 million Guilders is lost yearly due to burnout of their medical staff. An extensive search of the English Language literature of PubMed, Excerpta Medica, and so forth, did not reveal any reported studies of burnout in general from the gulf countries and no studies on the prevalence of burnout among orthopedic surgeons locally, and internationally.

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The objective of this study was to find out the prevalence of burnout among qualified orthopedic surgeons in the eastern province of Saudi Arabia.

Methods. In the eastern province of Saudi Arabia, there are approximately 102 qualified orthopedic surgeons. Qualified orthopedic surgeons are those who have completed the orthopedic residency, and at present working as consultant or specialist orthopedic surgeon. Between September 2003 and October 2004, from the Department of Orthopedic Surgery, King Fahd Hospital of the University, Al-Khobar, a questionnaire devised by Maslach and Jackson,[12] was distributed with instructions in a sealed self-addressed stamped envelope, and were instructed to mail once completed. The questionnaire did not specify the names, nationalities of the screened physicians. Apart from the questionnaire the information included was of the age of the physician, place of work, and whether working for the government sector or private sector. Government hospitals included hospitals of Ministry of Health, University or Ministry of Defense. The BOS as per Maslach and Jackson was based on 3 main parameters; emotional exhaustion (EE), depersonalization (DP) and personal accomplishment (PA). Once the questionnaire was received the data were entered in the database, and analyzed using SPSS package. Students t-test was used to measure the means, and frequencies at a confidence interval of 95% with significance of $p<0.05$.

Results. There are 102 qualified orthopedic surgeons in the eastern province of Saudi Arabia looking after a population of around 4 million. Sixty-nine (51.9%) orthopedists completed the questionnaire. The average age of the surgeons was 45.72 ± 6.82 (33-57) years. **Table 1** gives the different levels of burnout of 69 orthopedic surgeons. Forty-five (65%) of the surgeons were working in the government hospitals whereas the rest in the private sector. Doctors working for the government hospitals had lower EE as compared to the private group $p<0.05$. With regard to DP ortho surgeons from the private sector suffered more than the other group 80-49% ($p<0.001$). The surgeons working for the government hospital had a higher personal accomplishment of 53-35% $p<0.05$. **Table 2** gives the comparison between the surgeons working in the government, and the private hospitals.

Table 1 - Orthopedic surgeons surveyed for levels burnout syndrome.

Levels	High	Moderate	Low
Emotional exhaustion	35	16	18
Depersonalization	41	12	16
Personal accomplishment	33	24	12

Discussion. Burnout syndrome is an entity in itself, which has not received much attention among the health care givers, even though, it is one of the potential hazards of a medical career.[13] It was emphasized that police, and army personnel were the ones who were most commonly affected. In the later part of the last century it was recognized that health care givers; physicians, nurses, technicians are as vulnerable to burnout as any other workers. The end result of the BOS is wide ranging as it affects their quality of life they work in, and the performance of the physicians without their knowledge that something is wrong, and in the end the patients pay the price. The reported incidence among physicians was in the range of 50-76%. Shanafelt et al[10] reported that 76% of the residents surveyed were in a state of burnout and still in the workforce. Recently Visser et al,[14] found that among their medical staff 55% were suffering from the various signs, and symptoms of burnout syndrome. Similar incidence was reported among the family practice physicians.[15]

The incidence of BOS in other specialties like anesthetists was marginally lower 36-40%.[16,17]

Table 2 - Comparison of government and private hospitals for prevalence of burnout syndrome.

Levels	Government hospitals n	(%)	Private hospitals n	(%)	*p*-value
Age	43.5 ± 8.2		45.72 ± 6.82		
EE					
High	20	(40.8)	14	(70)	$p<0.005$
Moderate	12	(24.4)	5	(25)	NS
Low	17	(35)	1	(5)	$p<0.05$
DP					
High	24	(49)	16	(80)	$p<0.001$
Moderate	7	(14)	3	(15)	NS
Low	18	(37)	1	(5)	$p<0.05$
PA					
High	26	(53)	7	(35)	$p<0.05$
Moderate	16	(32.5)	7	(35)	NS
Low	7	(14.5)	6	(30)	$p<0.005$

EE - emotional exhaustion, DP - depersonalization, PA - personal accomplishment, NS - not significant

Surgeons did not fare any better. Johnson et al,[18] found that 67% of the surgeons were frustrated with their work, and 34% showed clear signs of burnout. Campbell[19] found that 32% of their surgical trainees were in a state of burnout, and advocated that there should be modification of existing surgical training. This study probably is the only one carried out specifically on trained orthopedic surgeons, and showed that as per the "Human Services Survey" majority were in a state of burnout.

Bauer et al[3] noted the causes of burnout is due to the high demand, low influence, a high level of engagement without sufficient rewards, and gratification. The other factors, which increase BOS are long working hours, which are usually emotionally demanding. Many individuals go on in a burnout situation for long without realization that it affects their work, and the output becomes sub-optimal. The recent revelations of 215 potential murders of patients by Dr. Shipman,[20] and support of the 6 of the general practitioner colleagues did not find a reason of the excessive deaths under his care. This raises a question whether these physicians were in a state of burnout? The answer to this we will never know. Mingote et al[21] advocated that we require programs of prevention of burnout, and timely interventions to help relieve the stresses among the medical staff. We are still long way off in streamlining the ideal prevention, and treatment. The result of this study shows that burnout is not the disease of the west, but physicians, and surgeons in the east can be affected as well. The prevalence of BOS among the orthopedic surgeons in the eastern province of Saudi Arabia is quite high. The result of the present study raises concerns, and emphasize to develop programs to prevent BOS More efforts are needed to reduce this syndrome so that the physicians can keep their health, mind, and not live in delusions, and provide suboptimal care for the patients at large. With the situation reaching alarming proportions, and going unnoticed, no decisive steps are being brought in force to prevent BOS.

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