

ORIGINAL ARTICLE

Burnout in Gynecology Residents - A Bitter Reality

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ABSTRACT

Background: Burnout among the postgraduate residents is emerging as a serious problem in the recent past. The emotional upset created by the burnout leads to poor efficiency at work and personality issues. Gynecology is always known for its high workload and stressful circumstances. Its high-risk conditions and need for quick decisions, lead to development of psychological and mental disturbances in the post graduate residents. Various demographic factors lead to increase in the severity of burnout.

Aim: The aim of the study was to identify the severity of burnout in residents of gynecology at public sector medical college located in periphery of province Punjab and to evaluate the effect of different demographic factors on the severity of burnout in residents of gynecology.

Method: This was a cross sectional study conducted at Nawaz Sharif Medical College, Gujrat from 1st -30th June 2018. The residents of gynecology from unit 1 and 2 were included on voluntary basis. Approval was taken from hospital ethical review board. Anonymous Performa was distributed in the residents. MBI-HSS was used to evaluate burnout in gynecology residents. Data analysis was done using SPSS version 20.

Results: Total 40 participants filled the performa. 65% were below 29 years of age and 35% were between 29-39 years of age. 60% were first- and second-year residents. 40% were third- and fourth-year residents. 75% were living at home and 25% at hostel. 75% were having income between 1-2 lacs. 25% were having income less than one lac. 65% were doing duties for more than 85 hours per week. Mean score for all three components of MBI-HSS including emotional exhaustion, depersonalization and personal accomplishment were in high range indicating severe burnout in gynecology residents. This study is showing high burnout rate with increase in age, prolong working hours and stay at home with additional responsibilities. Married status is also increasing burnout due to increased variety of responsibilities. Burnout is decreasing with progression of training year as first year training is new having a lot of apprehension about the program leading to burnout but with passage of time, they become more acclimatized.

Conclusion: This study showed that severe burnout is prevalent in residents of gynecology. Prolong duty hours, lack of support by supervisors, and low stipend of trainees causes the burnout among the residents.

Key Words: Burnout, gynecology residents, MBI-HSS, emotional exhaustion, depersonalization, personal accomplishment.

Introduction: Burnout is a psychological phenomenon which leads to emotional disturbances and difficulty in coping with day to day stressors of workplace environment. (Al-Dubai & Rampal, 2009)

It has emerged as a major problem in the recent past. The training program of gynecology residents produce a lot of stress related to the emergency condition of gynecology patients, its demand for quick treatment actions and expectations of the patient and their relatives. The large number of patients per resident

arriving in emergency for treatment during each duty is also a big stress factor. (Waheed et al., 2017) (Oskrochi, Maruthappu, Henriksson, Davies, & Shalhoub, 2016)

Burnout leads to physical as well as mental disability reflecting in poor work quality and increased chances of medical errors (DeCaporale-Ryan et al., 2017). There are many factors in the working environment which leads to severe burnout in the gynecology and obstetrics residents like un booked patients appearing in emergencies, high number of patients per resident in emergency, complex nature of disease of patients with preexisting complications, poor support of supervisors, prolong duty hours, poor facilities for treatment of patients in hospital settings and lack of harmony in working staff are few among many factors (DeCaporale-Ryan et al., 2017) (Iorga et al., 2017) (Turgut et al., 2016). No provision of rest while on duty and long intervals away from home are also additional factors leading to burnout of residents. Dissatisfaction towards career selection is another emerging problem. (Costa, Santos, Santos, Melo, & Andrade, 2012) (Maslach & Jackson, 1981)

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Nawaz Sharif medical college is a public sector medical college located in periphery of Punjab province. This study will try to identify the level of burnout in residents of gynecology at a newly developed medical college located in periphery of province away from central cities and their backup facilities.

This study is conducted:

1-To identify the severity of burnout in residents of gynecology at public sector medical college located in periphery of province Punjab

2- To evaluate the effect of different demographic factors on the severity of burnout in residents of gynecology.

This is a cross sectional descriptive study. Questionnaires were distributed in 40 postgraduate residents of gynecology form Unit 1 and Unit 2 at Nawaz Sharif medical college, Gujrat, a public sector medical college. The participants filled the Performa voluntarily. Only the residents having gynecology as their primary field were included. The residents doing electives in gynecology from other specialties were excluded. No resident from other specialties of hospital was included. This study was conducted over a period of 30 days from 1-30 June 2018. All the residents returned the Performa. It was anonymous performa, labeled with an ID number. The job information included working hours per week and monthly income of each resident was filled by each respondent.

Maslach Burnout Inventory-Human Survey Scale was added in Performa. This twenty-two-item scale is used commonly to evaluate burnout. The three major areas focused by MBI-HSS are emotional fatigue, depersonalization and personal accomplishment. Pilot testing was done on a group of 5 doctors. All three subscales show high internal consistency with Cronbach's α coefficient values of 0.837, 0.869, and 0.881 and test-retest reliability was high ($p < 0.001$). Each category has further questions which are answered on Likert scale from never to daily, on the basis of personal experience.

In first part of Performa, detail of each resident was taken including age, religion, marital status, year of training, total monthly income, place of residence, working hours per week and satisfaction with the carrier choice. In the later part of Performa, MBI -HSS questionnaire was used to calculate emotional fatigue, depersonalization and personal accomplishment in the residents. The severity of the three above stated categories was interpreted as follows in Table 1:

Emotional fatigue and depersonalization scores were directly proportional to severity of burnout. Personal accomplishment score is inversely proportional to burnout. Descriptive statistics were used to assess the frequency of different demographic and

socioeconomic characteristics and their effect on MBI -HSS parameters was calculated using SPSS version 20. Mean value and standard deviation were calculated.

Results: Table 2 is describing the demographic characteristics of all the participating residents of gynecology.

Maslach burn out inventory -Human survey scale was filled by each participant. It has 22 questions relating to emotional fatigue, depersonalization and personal accomplishment.

The mean values for all three categories of MBI-HSS scale was calculated in residents of gynecology as follows:

The overall high scores of emotional fatigue and depersonalization in this study are showing severe burnout in the residents. The personal accomplishment is inversely proportional to burn out level. Here it is in low category also signifying severe burnout.

Table 4 shows Level of Burnout in residents of gynecology in relation to demographic variables.

Emotional fatigue is increasing with increase in age. Trainees of all years have almost equally severe emotional fatigue. With increase in income the level of emotional fatigue decreases. Those who are living in homes have severe emotional fatigue but the hostelite have moderate level of emotional fatigue probably because there are no additional responsibilities of home on them. The working hours are showing inverse relationship with emotional fatigue. It is low in less than 65 working hours /week and high when working hours are above 75 hours/week. Marital status is also increasing emotional fatigue to severe level due to increased responsibilities. It is moderate in single residents.

Depersonalization is at severe level in all categories of residents of gynecology.

Regarding personal accomplishment, it was low in younger age group and high in older age group showing decreased burnout with increase of experience. With year of training it decreased drastically with high score in first year and low score afterwards indicating gradual increase in burnout with time. The personal accomplishment was high in low income group but low in medium income group and high in high income group. So, burnout is more severe in medium income group.

Moderate score was with residence at home and low score with hostel accommodation showing increased burnout in hostelite. No difference in burnout seen in relation to working hours / week as all are having low personal accomplishment.

Married residents are having moderate score for personal accomplishment while single have low score showing increased burnout in them.

TABLE 1: Interpretation of categories of MBI-HSS (Maslach burnout inventory-Human Survey Scale)

TYPE	LOW	MODERATE	HIGH
Emotional Fatigue	0-16	17-26	27 and above
Depersonalization	0-6	7-12	13 and above
Personal Accomplishment	0-31	32-38	39 and above

Table 2: Demographic characteristics of residents of gynecology

Sr. No.	Category	Percentage(n=40)
1.	AGE: 1)20-29 years: 2)30-39 years:	65% 35%
2.	YEAR OF TRAINING: 1)First year: 2)Second year: 3)Third year: 4)Fourth year:	25% 35% 10% 30%
3.	MONTHLY INCOME: 1)Less than one lac: 2)Between 1-2 lac:	25% 75%
4.	RESIDENCE: 1)Home: 2)Hostel:	76% 24%
5.	WORKING HOURS: 1)65 hours/week 2)75 hours /week 3)85 hours/week	20% 15% 65%
6.	MARITAL STATUS: 1)Married: 2)Single:	67% 33%

TABLE 3: Average burnout score in residents of gynecology according to MBI-HSS scale.

Category of MBI-HSS	MEAN SCORE	SD
Emotional fatigue	30	6.04
Depersonalization	31	6.50
Personal accomplishment	17	4.78

TABLE 4: Level of Burnout in residents of gynecology in relation to demographic variables.

Sr No	Demographic characteristics	Emotional Fatigue Score(n=40)	Depersonalization Score(n=40)	Personal Fulfillment Score (n=40)
1	AGE: 1)20-29 years: 2)30-39 years:	1)Mean=29 (SD=6.25) 2)Mean=32 (SD=5.67)	1)Mean=17 (SD=4.26) 2)Mean=17 (SD=2.58)	1)Mean=25 (SD=3.59) 2)Mean=43 (SD=54.73)
2	YEAR OF TRAINING: 1)First year: 2)Second year: 3)Third year: 4)Fourth year:	1)Mean=29 (SD=9.26) 2)Mean=31 (SD=5.29) 3)Mean=29 (SD=2.38) 4)Mean=30 (SD=4.75)	1)Mean=19 (SD=4.16) 2)Mean=18 (SD=3.95) 3)Mean=22 (SD=4.04) 4)Mean=14 (SD=4.91)	1)Mean=48 (SD=64.92) 2)Mean=25 (SD=3.80) 3)Mean=28 (SD=1.73) 4)Mean=26 (SD=2.53)
3	MONTHLY INCOME: 1)50,000: 2)1 lac: 3) 1.5lac: 4) 2lac:	1)Mean=34 (SD=7.77) 2)Mean=31 (SD=6.53) 3)Mean=32 (SD=6.29) 4)Mean=29 (SD=5.71)	1)Mean=21 (SD=0.00) 2)Mean=20 (SD=5.4) 3)Mean=16 (SD=6.66) 4)Mean=17 (SD=2.14)	1)Mean=38 (SD=0.00) 2)Mean=24 (SD=3.81) 3)Mean=26 (SD=3.46) 4)Mean=41 (SD=55.16)
4	RESIDENCE: 1)Home: 2)Hostel:	1)Mean=31 (SD=5.43) 2)Mean=26 (SD=5.94)	1)Mean=18 (SD=5.22) 2)Mean=15 (SD=2.36)	1)Mean=34 (SD=37.61) 2)Mean=24 (SD=4.35)
5	WORKING HOURS: 1)65 hours/week 2)75 hours /week 3)85 hours/week	1)Mean=24 (SD=2.31) 2)Mean=27 (SD=3.38) 3)Mean=27 (SD=4.73)	1)Mean=12 (SD=4.62) 2)Mean=18 (SD=3.14) 3)Mean=19 (SD=4.43)	1)Mean=24 (SD=2.31) 2)Mean=27 (SD=3.38) 3)Mean=27 (SD=4.73)
6	MARITAL STATUS: 1)Married: 2)Single:	1)Mean=32 (SD=6.13) 2)Mean=26 (SD=4.13)	1)Mean=18 (SD=4.99) 2)Mean=16 (SD=4.33)	1)Mean=34 (SD=38.93) 2)Mean=24 (SD=4.15)

Discussion: This study has shown that residents of gynecology are suffering from burnout especially with increase in age, increase in working hours/week, married status and with each passing year of training.

The high burnout rate seen in our study is comparable to the meta-analysis conducted by (Moradi, Baradaran, Yazdandoost, Atrak, & Kashanian, 2015) which stated high prevalence of burnout in residents of gynecology.

Emotional fatigue was not changing with change of age in my study. These results correlate with a research conducted in Brazil by Costa et al. which showed no effect of age on burnout of participants. The results differ from the results of a field study conducted by Sami Abdo Radman et al. (Al-Dubai & Rampal, 2009) in Malaysia which concluded increased burnout in low age group. The results of depersonalization remained static at high level in this study but personal fulfillment increased with increasing age showing decrease in burnout (Chigerwe, Boudreaux, & Ilkiw, 2014). The difference is probably due to small sample size in this study and single center of our study.

The results regarding working hours per week are comparable to the study conducted by C Castelo-Branco, a F Figueras, a E Eixarch, et al (Castelo-Branco et al., 2007) in Barcelona, Spain which also showed increased burnout with increasing working hours per week. Results are also comparable to the meta-analysis conducted by Yousef Moradi¹, Hamid Reza Baradaran^{*2}, Maryam Yazdandoost (Moradi et al., 2015) The study conducted by Khadija Waheed,¹ Naeem Liaqat,² Sara Ejaz,³ Amna Khanum,⁴ in 2017 in Lahore, Pakistan (Waheed et al., 2017) also showed decreased efficiency of the residents with increasing working hours.

This study showed high burnout in the residents living at home as compared to hostels. Ratnakaran et al. (2016) concluded increased burnout in the participants living at home than hostel. This may be due to increased responsibilities of home and other family members on them. The results are also comparable to the study done by Korczak et al (Korczak, Huber, & Kister, 2010).

Burnout is increased in residents with each passing year in this study because of the decrease in personal accomplishment level although emotional exhaustion and depersonalization were of same intensity with each passing year. The results are comparable to the study done by B Ratnakaran et al in 2016 in India regarding personal accomplishment but not for emotional fatigue and depersonalization which both increased with passing years in that study. This difference is because the study cited is done at country level with large and multivariate sample size.

This study has many limitations, which if corrected, can lead to more authentic results. It is conducted at single Centre with small sample size so results cannot be generalized, as each Centre may have different working environment and type of trainees.

While considering medical colleges of periphery of Punjab, other medical colleges should also be included in the study to get more valid results. It was not done due to limited resources. It is highly recommended that a study should be done at national level to precisely identify the factors leading to burnout in the trainee residents. It will provide guidelines for modification of training program. This will also help in reducing the medical errors. The study is including only gynecology residents so results cannot be applied to other specialty residents.

Conclusion: Multiple factors are identified in this study which can modify burnout level in trainee residents of gynecology. This study is showing high burnout rate with increase in age, prolong working hours and stay at home with additional responsibilities. Married status is also increasing burnout due to increased variety of responsibilities. Burnout is decreasing with progression of training year as first year training is new having a lot of apprehension about the program leading to burnout but with passage of time, they become more acclimatized. A study at national level is required to be done including all the surgical specialties to evaluate the degree of burnout in their residents and factors which are aggravating and relieving the burnout should be identified. This will help in the development of more effective training programs for each specialty, will provide a baseline about the existence of the problem of burnout in gynecology residents and the need to further explore the area especially in newly developed medical colleges in the periphery of the province Punjab.

Declaration of interest:

The authors report no conflict of interest.

Author's contribution:

- Syeda Shaista Waheed: Conception and design of the work; & the acquisition, analysis, & interpretation of data for the work
- Rehan Ahmad Khan: Final approval of the version to be published
- Ahsan Sethi: Critical Review of the version to be published

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