A study of demographic predictors of burnout among doctors working in tertiary healthcare units: A cross-sectional observational study

Nazia Yaqoob[1], Somia Zulfiqar[2]

ABSTRACT

This study was conducted to predict level of burnout from demographic predictors among medical officers working in tertiary healthcare. Data was collected through Burnout Scale that is a subscale in the professional quality of Life scale (ProQOL). Standard Multiple Regression Analysis was run to predict Burnout from demographic variable. Statistical Analysis indicated 96 percent of variance in Burnout by claiming socioeconomic status (SES), marital status, gender and age as significant and unique contributors with 0.01 alpha level. On the other hand, nature of organization is not a significant predictor for Burnout as observed alpha level was greater than 0.05. So, Burnout is significantly predicted by age, gender, marital status, socioeconomic status and education level among doctors.

Keywords: Doctors, Burnout, Socioeconomic status, Demographic characteristics, Tertiary care Hospital

INTRODUCTION

Burnout is a response to prolonged stressors at work, and is defined as a chronic syndrome including exhaustion, cynicism, and reduced professional efficacy[1]. In United States small negative correlation between employee age and burnout observed[2]. In medical practitioners being male, being single or divorced, and not having children were related to the highest levels of burnout[3]. Women and men differ significantly for their burnout symptoms and levels in medical residents,[4] further it was suggested to consider gender when implementing preventive interventions for burnout in this population[5]. Gender, marital status, and education moderated the relationship between age and burnout[6]. In medical practitioners' burnout levels associated with age, gender, marital status, having children, level of healthcare, type of work shift, healthcare service areas and conducting administrative

tasks[7]. Burnout among gynecology residents was linked with more working hours and dissatisfaction with job that varied in different organizations[8]. Predictors of Burnout among mental health professionals were also focused[9]. Further Burnout levels play significant role in medical errors commitment among Physicians[10]. This study focused on demographic variables in spite of other factors that may predict burnout among doctors. So far limited literature found that measured demographic variables to be linked with burnout among doctors. This study conducted with an objective to predict burnout from demographic characteristics (i.e. Age, gender, marital status, SES, education level and nature of organization) among doctors working in tertiary healthcare units.

METHODOLOGY

This Cross-sectional observational study was conducted in Department of Applied Psychology during 21st January 2017 to 30th May 2017. Sample was selected from Public and Private Hospitals of Faisalabad and Lahore city. Stratified random sampling strategy used to collect data from participants in this research. On duty volunteer participants both male and female medical officers participated in this study. They were between 24-60 years of age, with minimum experience of 1 year and maximum 20 years. Participants less than one-year experience were not included in this study. A brief Demographic sheet was presented to participants to indicate demographic information. Burnout was measured by Burnout subscale of the professional quality of Life scale (ProQOL) Beth Hudnall Stamm (2009-2012)[11]. Burnout scale has high reliability index of Cronbach's alpha 0.75. Ten items scale has

1. Lecturer of Applied Psychology
2. Scholar of Applied Psychology

    Government College Women University, Faisalabad

Correspondence:

Nazia Yaqoob
Lecturer of Applied Psychology,
Government College Women University, Faisalabad
Email: naziayaqoob@gcwuf.edu.pk

five "revers scored" items i.e. item no 1, 2, 5, 6, & 10. If score is below 22, this is not matter of concern but score above 42 is an alarming state for practitioner. For data collection ethical issues were considered i.e. approval from authorities, and volunteer participation of participants. Demographic variables i.e. Age, gender, marital status, socioeconomic status (SES), education level and nature of organization assessed to predict burnout among doctors. Data was collected by the authors in individual setting from the participants in their respective organizations.

Data Analysis: SPSS version 21 for windows was used for data analysis. Descriptive statistics and Standard multiple regression analysis were run on data.

RESULTS

The sample was included 120 Doctors, 64 (53.3%) men and 56 (46.7%) women, unmarried 55(45.8%), married 65(54.2%), educated up to MBBS 68(56.7%), FCPS 52(43.3%), from Middle SES 105(87.5%), high SES 15(12.5%), working at the government 79(65.8%), and private 41(34.25%) Hospital of Punjab, Pakistan. Mean age of the participants was 30.40±7.65 years. Standard Multiple Regression analysis predicting Burnout from demographic characteristics among doctors (N=120) is stated in Table-I.

Table-I: Standard Multiple Regression analysis predicting Burnout from demographic characteristics among Medical officers (N=120).

Variables		Frequency (%)
Gender	Men	64(53.3)
	Women	56(46.7)
Marital Status	Unmarried	55(45.8)
	Married	65(54.2)
Education	MBBS	68(56.7)
	FCPS Part I	52(43.3)
SES	Middle	105(87.5)
	High	15(12.5)
Nature of Organization	Private	41(34.2)
	Government	79(65.8)
Predictors	**Burnout**	
	ΔR^2	B
Step 1	.96**	
SES		.32**
Education		.11*
Marital status		.19**
Gender		.13**
Age		.23**
Nature of Organization		.03

*$p < .05$, **$p < .01$

DISCUSSION

Standard Multiple Regression Analysis indicates that all independent variables (demographic characteristics) are significantly and highly correlated. In Table-I Standard Multiple Regression Analysis Model (SES, education, marital status,

gender, age, and nature of organization) explains 96 percent of variance in Burnout. SES made strongest, significant and unique contribution in prediction of Burnout with Beta value .32 and 0.01 alpha level, when variance explained by all other variables in this model is controlled for. Marital status, gender and age were also significant and unique contributors to explain Burnout with 0.01 alpha level. On the other hand nature of organization is not a significant contributor in this study due to alpha level greater than 0.05.

Current study predicted socioeconomic status (SES) as the most significantly predictor of burnout among physician same findings were sort out in previous year through regression analysis displayed that socio-economic status significantly predicted burnout in adolescents[12]. Age succeeding to SES revealed as another significant predictor of burnout among doctors. Former studies declared that burnout has significant relationship with age, additionally explaining that burnout may decreases with age. The high levels of burnout in younger workers could be due to the fact that younger individuals have less professional experience and thus have not had sufficient time to formulate effective strategies for dealing with occupational stress[13].

Merital status following to age proved another significant predictor in this study supported by previous literature asserting that married individuals are more likely to suffer from emotional exhaustion than unmarried[14]. Gender of physician also a significant predictor of burnout among these practitioners. In a predictive analysis, burnout in Pakistani medical students was significantly associated with age and gender in past years[15]. Furthermore a Meta-analysis proved that women seem to experience more emotional exhaustion whereas men are more prone to depersonalization[16]. Education level was amongst the least significant predictor of burnout among doctors, this is consistent with previous study indicating that education level of medical practitioners significantly influenced their burnout level[17].

At the end nature of organization found as an insignificant predictor of burnout among doctors. This fact reinforced by a past study on surgical interns claiming that burnout may be associated with demographic characteristics[18] other than organizational type[19]. Human capitals are the most imperative strength of every organization. So, health care Establishments are proposed to provide appropriate work environment for their employees to diminish risk of Burnout and maximize client care.

CONCLUSION

Age, gender, marital status, socioeconomic status, education level and nature of organization are significant predictors of Burnout among doctors working in Punjab.

CONTRIBUTION OF AUTHORS

Yaqoob N: Conceived idea, Literature review, Data analysis, Manuscript writing
Zulfiqar S: Study design, Data Collection

REFERENCES

1. Hakanen JJ, Bakker AB. Born and bred to burn out: A life-course view and reflections on job burnout. J of Occu Health Psyc. 2017; 22(3):354. dx.doi.org/10.1037/ocp0000053

2. Brewer EW, Shapard L. Employee burnout: A meta-analysis of the relationship between age or years of experience. Huma Reso Deve Rev. 2004;3(2):102-23. doi.org/10.1177/1534484304263335)

3. Ortega E, Ramirez-Baena L, la Fuente-Solana D, Vargas C, Gómez-Urquiza J. Gender, Marital Status, and Children as Risk Factors for Burnout in Nurses: A Meta-Analytic Study. Int J of Envi Rese & Pub Health. 2018; 15(10):2102.

4. Büssing A, Falkenberg Z, Schoppe C, Recchia DR, Poier D. Work stress associated cool down reactions among nurses and hospital physicians and their relation to burnout symptoms. BMC Health Serv Res. 2017;17(1):551.

5. Verweij H, van der Heijden FM, van Hooff ML, Prins JT, Lagro-Janssen AL, van Ravesteijn H, et al. The contribution of work characteristics, home characteristics and gender to burnout in medical residents. Adv in Health Sci Edu. 2017;22(4):803-818.

6. Gómez-Urquiza JL, Vargas C, De la Fuente EI, Fernández-Castillo R, Cañadas-De la Fuente GA. Age as a risk factor for burnout syndrome in nursing professionals: a meta-analytic study. Res in Nurs & Health. 2017;40(2):99-110.

7. Cañadas-De la Fuente GA, Vargas C, San Luis C, García I, Cañadas GR, Emilia I. Risk factors and prevalence of burnout syndrome in the nursing profession. Int J of Nurs Stud. 2015;52(1):240-249.

8. Balch CM, Freischlag JA, Shanafelt TD. Stress and burnout among surgeons: understanding and managing the syndrome and avoiding the adverse consequences. Arch of Surg 2009;144(4):371-376.

9. Gallavan DB, Newman JL. Predictors of burnout among correctional mental health professionals. Psyc Serv. 2013;10(1):115.

10. Romani M, Ashkar K. Burnout among physicians. Libya J Med 2014, 9: 235561-6. dx.doi.org/10.3402/ljm.v9.23556

11. Hudnall Stamm,B. 2009-2012. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). [Internet] 2009-2012, Website [www.proqol.org]. [Accessed on 2016 Oct 15].

12. Luo Y, Wang Z, Zhang H, Chen A. The influence of family socio-economic status on learning burnout in adolescents: Mediating and moderating effects. J of Child & Fam Stud. 2016;25(7):2111-2119.

13. Zafar W, Khan UR, Siddiqui SA, Jamali S, Razzak JA. Workplace violence and self-reported psychological health: coping with post-traumatic stress, mental distress, and burnout among physicians working in the emergency departments compared to other specialties in Pakistan. The J of Emerg Med. 2016;50(1):167-177.

14. Antiel RM, Reed DA, Van Arendonk KJ, Wightman SC, Hall DE, Porterfield JR, et al. Effects of duty hour restrictions on core competencies, education, quality of life, and burnout among general surgery interns. JAMA Surg. 2013;148(5):448-455.

15. Muzafar Y, Khan HH, Ashraf H, Hussain W, Sajid H, Tahir M, et al. Burnout and its Associated Factors in Medical Students of Lahore, Pakistan. Cureus. 2015;7(11): 3901-3912

16. Al-Turki HA. Saudi Arabian Nurses. are they prone to burnout syndrome?. Saud Medi Jour. 2010;31(3):313-316.

17. Farshi SS, Omranzadeh F. The effect of gender, education level, and marital status on Iranian EFL teachers' burnout level. Int J of Appl Ling & Eng Lit. 2014;3(5):128-133.

18. Lemaire JB, Wallace JE, Sargious PM, Bacchus M, Zarnke K, Ward DR, et al. How Attending Physician Preceptors Negotiate Their Complex Work Environment: A Collective Ethnography. Acad Medi. 2017. Website [10.1097/ACM.0000000000001770]. Accessed on June 15, 2018

19. Cañadas-De la Fuente GA, Vargas C, San Luis C, García I, Cañadas GR, Emilia I. Risk factors and prevalence of burnout syndrome in the nursing profession. Int J of Nurs Stud. 2015;52(1):240-249.