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Original Article

Correlation between Burnout and Meaning in Life in Doctors in Pakistan: A Cross Sectional Study

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ABSTRACT

According to ICD-11, burnout is a syndrome caused by poorly managed chronic workplace stress that is characterized by feelings of depleted energy or exhaustion, increased mental distance from the job one has, or feeling negative or cynical about it, as well as a sense of ineffectiveness and lack of accomplishment. **Objective:** To assess the correlation between Burnout, its dimensions and Meaning in Life in early career doctors in Pakistan. **Methods:** Online questionnaire containing a demographic survey, Purpose in Life test and Maslach Burnout Inventory, Human Services Survey was circulated among early career doctors. Responses were analyzed using SPSS 26.0. **Results:** 135 doctors (34.6%) reported burnout while 253 (64.9%) did not. Doctors who reported burnout had significantly less meaning in life (M = 59.39, SD = 12.57) than those who did not (M = 74.83, SD = 13.68); t (386) = 10.883, p <0.01. A significant negative correlation was found between meaning in life and emotional exhaustion, r(386)= -.565, p = 0.001 and between meaning in life and depersonalization, r (386)= -.452, p = 0.001. Meaning in life and personal accomplishment were significantly positively correlated, r (386) = .581, p = 0.001. **Conclusion:** Doctors who have greater meaning in life experience less burnout. Meaning centered interventions can help combat the problem.

INTRODUCTION

According to ICD-11, burnout is a syndrome caused by poorly managed chronic workplace stress that is characterized by feelings of depleted energy or exhaustion, increased mental distance from the job one has, or feeling negative or cynical about it, as well as a sense of ineffectiveness and lack of accomplishment [1]. Even though there is a large variation in the prevalence estimates of burnout in doctors owing to the myriad definitions and assessment methods [2], it is recognized that doctors are more likely than the general population to experience burnout. Shanafelt et al reported that doctors were at a significantly increased risk for burnout (Odds Ratio 1.39) than other working adults [3]. They suffered from burnout at significantly greater rates in comparison to other doctoral-level professionals, and were less satisfied with the balance between their personal and professional life. Because of uncertainty, risk of contracting illness at work and social distancing, coronavirus pandemic resulted in a surge in this problem [4]. This has detrimental consequences for both doctors and their patients. Doctors suffering from burnout have a two-fold risk of suicidal ideation, 25% increased risk of alcohol abuse and increased risk of motor vehicle accidents. They are more likely to be depressed, less productive at work, dissatisfied with their jobs and have interpersonal relationship difficulties. The patients treated by burnt-out doctors may be subject to double the hazard of medical errors. They experience longer recovery times, higher mortality risk and more dissatisfaction with the care received. Individual factors like personality traits appear to be substantially

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less important in causing physician burnout than the organizational factors which include stressful organizational climate, a lack of autonomy and support, excessive workloads and incentive based payment models, as well as scarce resources and inefficient system leading to a sense of powerlessness and futility in the doctors [5-7].Pines contends that highly motivated professionals who identify with their job and seek a sense of meaning in life and existential significance from it are vulnerable to burnout when they fail to meet their goals and feel unable to contribute significantly [8]. They begin by considering their lives matter, caring deeply about the people they have chosen to help meeting their emotional demands, and hoping to make a significant difference in their lives and make the world a better place to live but when they believe their efforts have fallen short, they experience emotional exhaustion, depersonalization and lack of a feeling of accomplishment, which together constitute burnout. This idea is supported by empirical evidence from the helping professions. Krok in the research on firefighters, and Tomic et al [9-10]. in their study of principals and teachers discovered that the presence of meaning in life and existential fulfilment predict less burnout across all dimensions. This was also true for social workers, in who higher purpose in life lead to lower rates of burnout [11]. Similar conclusions arise from the research on doctors internationally. Intrinsic motivators, such as a calling for the work, were associated with higher levels of satisfaction and commitment in doctors than extrinsic motivators, such as increased annual salary [12]. Likewise, physicians who believe their profession has a prosocial purpose as well as personal meaning report less fatigue and burnout [13]. A study of family medicine programme directors found that those who expressed a greater sense of meaning in their work experienced significantly less burnout [14]. A similar study of emergency department doctors discovered that burnout was significantly predicted by a lower sense of existential purpose attributable to one's work [15]. This study was designed as there was no published research available that examined the association between burnout and a sense of meaning in life in Pakistani doctors. We anticipate that this will open the door for more in-depth empirical investigation in this field, which may eventually lead to the development of preventive and curative strategies for physician burnout in the organizations they provide services for the people.

METHODS

This was a cross-sectional study done using a convenience sampling technique. Data were collected from early-career doctors working in Pakistan between July 16 to October 15, 2021. The inclusion criteria were that participants (i) were early career doctors (i.e. those working for 10 years or less) and (ii) were working for a minimum of past 6 months. The exclusion criterion was current diagnosis and treatment for a psychiatric disorder. Participants were asked to fill an online survey after providing informed consent. This was created with Google Forms and distributed through social media networking sites. It included information about the participants' sociodemographic characteristics, including information about age, gender, marital status, education, designation at job, total duration of work and whether they worked in COVID units or not. Psychological variables collected included the Purpose in Life (PIL) test and the Maslach Burnout Inventory, Human Services Survey (MBI-HSS). Crumbaugh and Maholick developed the Purpose in Life (PIL) test in 1964, which is 20-item self-reported psychometric scale measures one's sense of life's meaning. Each question is graded on a scale of 1 to 5, with the higher the score indicating that life is seen as more meaningful. The Maslach Burnout Inventory, Human Services Survey (MBI-HSS) is a psychological assessment tool that includes 22 items about occupational burnout. The MBI-HSS assesses three dimensions of burnout: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). Greater scores on the first two and lower scores on the third indicate burnout. As endorsed by Maslach, a high score on both EE and DP or a combination of high EE and low PA was taken as the operational definition of burnout for the purposes of this study [16]. SPSS version 26.0 was used for statistical analysis. Cronbach's alpha was used to assess the internal consistency of all scales, and a value greater than 0.7 was considered acceptable. Frequencies and percentages were used to describe categorical variables. The quantitative variables were described using the mean (M) and standard deviation (SD). Cronbach's alpha was used to assess the internal consistency of each subscale, and a value greater than 0.7 was considered acceptable. Analysis of variance and t test were run to assess the impact of demographic characteristics on burnout subscales and meaning in life. Pearson's correlation test was applied at 5% margin of error and the correlation coefficients were calculated.

RESULTS

Average age of the participants was 28.07±2.87 years and the average duration they had worked as a doctor was 3.94±2.41 years. As shown in Table 1, greater number of women (n=265, 68.3%) participated in the study compared to men (n=123, 31.7%). Higher number of doctors (n=225, 58%) were single than married (n=154, 39.7%). Majority of the doctors had MBBS as their highest qualification (n=352, 90.7%) and were working as postgraduate trainees (n=196, 50.5%). Over half of the doctors had worked in or were working in COVID units (n=203, 52.3%).

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Baseline characteristic	n	%
Gender		
Female	265	68.3
Male	123	31.7
Marital status		
Single	225	58.0
Married	154	39.7
Separated	1	0.3
Divorced	7	1.8
Widowed	1	0.3
Highest educational level		
MBBS	352	90.7
BDS	6	1.5
Postgraduate qualification	30	7.8
Job designation		
House Officer	98	25.3
Medical Officer	68	17.5
Postgraduate Trainee	196	50.5
Consultant/Specialist	20	5.2
Lecturer/Demonstrator	6	1.5
Specialty		
Medicine & Allied	230	59.3
Surgery & Allied	107	27.6
Non-clinical specialties	21	5.4
General Practice	21	5.4
Dental specialties	9	2.3
Worked/working in COVID Units		
Yes	203	52.3
No	185	47.7

Table 1: Sociodemographic Characteristics of Participants at Baseline

The mean scores on Emotional Exhaustion (EE), Depersonalization (DP), Personal Accomplishment (PA) and Purpose in Life test (PIL) were 24.19±12.33, 10.09±6.36, 32.84±8.09 and 69.46±15.19 respectively. The Cronbach's α for EE, DP, PA and PIL were 0.91, 0.75, 0.78 and 0.93, which are >0.7 and indicate good reliability. 164 (42.3%) doctors had high emotional exhaustion, 131 (33.8%) had high depersonalization and 154 (39.7%) had low personal achievement. Using the operational definition of burnout chosen, it was found that 135 doctors (34.6%) reported burnout while 253 (64.9%) did not.

Variable	Groups	Burnout		Chi Square
		Yes	No	
Gender	Male	35	88	3.189
	Female	100	165	
Marital Status	Single	80	145	8.839
	Married	48	106	
	Separated	1	0	
	Divorced	5	2	
	Widowed	1	0	
Qualification	MBBS	129	223	6.482
	BDS	1	5	
	FCPS	4	16	
	MCPS	1	4	
	M.Phil	0	2	
	Masters	0	3	
Designation	House Officer	39	59	11.780*
	Medical Officer	29	39	
	Postgraduate Trainee	65	131	
	Consultant/Specialist	2	18	
	Demonstrator/Lecturer	0	6	
Specialty	Medicine & Allied	87	143	6.483
	Surgery & Allied	34	73	
	Non-clinical Specialties	3	18	
	General Practice	9	12	
	Dental Specialties	2	7	
Working/Worked in COVID units	Yes	75	128	.869
	No	60	125	

*p<0.05

Table 2: Burnout according to Demographic Characteristics

Table 2 shows the proportion of participants who reported burnout according to gender, marital status, qualification, designation, specialty and frontline work during COVID-19. An independent samples t-test was run to compare PIL scores between doctors who reported burnout and who did not. There was a significant difference in PIL scores between former (M=59.39, SD=12.57 and latter group (M=74.83, SD=13.68); t (386) =10.883, p<0.01. Independent sample t-tests were also used to compare the mean Purpose in Life (PIL) test and MBI-HSS subscale scores between male and female doctors, as well as frontline and second line doctors. No significant difference was found between frontline and second line doctors. However, there was a significant difference in PIL scores between males (M=72.61, SD=14.40) and females (M=67.99, SD=15.35); t (386) =2.811, p=.005 as well as Emotional Exhaustion (EE) scores between males (M=21.63, SD=11.46) and females (M=25.37, SD=12.56); t (386) =-2.804, p=.005. The effect of marital status, highest educational level, job designation, and specialty on PIL and MBI-HSS subscale scores was compared using one-way ANOVA tests. There were no statistically significant differences in any score between the groups with respect to marital status. However, the groups based on educational qualification (F (5, 382)

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=2.585, p=<.05) and specialties (F (4, 383) =2.919, p=<.05) differed in their Depersonalization (DP) scores. The groups according to job designation differed significantly in their scores on as Emotional Exhaustion (EE) with (F (4,383) =3.298, p=.011), Depersonalization (DP) with (F (4,383) =4.251, p=.002) and Personal Accomplishment (PA) with (F (4,383)=5.351, p=.000). Pearson correlation coefficient was calculated to assess the linear relationship between the scores on Purpose in life (PIL) test and the three subscales of MBI-HSS i.e. EE, DP and PA. There was a negative correlation between the PIL and EE, r (386) =-.565**, p=0.001 and between PIL and DP, r (386) =-.452**, p=0.001, representing a large and moderate effect size respectively. However, there was a positive correlation between the PIL and PA, r (386) =.581**, p=0.001, representing a large effect size. Age and the duration of work as a doctor showed a significant positive correlation with PIL scores, although the effect size was small.

	Age	Duration	PIL	EE	DP	PA
Age	1	.854**	.209**	-.157**	-.157**	.166**
Duration	-	1	.173**	-.126*	-.126*	.197**
PIL	-	-	1	-.565**	-.565**	.581**
EE	-	-	-	1	1	-.277**
DP	-	-	-	-	-	-.294**
PA	-	-	-	-	-	1

Table 3: Correlations
**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

DISCUSSION

The primary goal of the study was to evaluate the effect of meaning in life on burnout experienced by early career doctors working in Pakistan as well as on its dimensions, namely emotional exhaustion, depersonalization and reduced sense of personal achievement. Doctors who had burnout scored lower on meaning in life than who had no burnout. Moreover, higher sense of meaning in life was found to be associated with lower emotional exhaustion and depersonalization and higher sense of personal achievement. Even though no available study from Pakistan directly studied physician burnout in relation to meaning in life, the reported protective factors against burnout include good interpersonal relationships, a future oriented approach, healthy activities and attitude, all of which indirectly reflect a meaningful life [17]. International literature also supports this notion. Qualitative data from the doctors suggests that they do not attribute burnout to patient bulk or complexity but to an inability to engage well with direct patient care tasks owing to external difficulties which then compromises the intrinsic joy and meaning [18]. According to another study, a sense of calling at work, personally satisfying hours per day, enduring relationships with patients, and dedication to patient care are all associated with high life meaning. Burnout and meaning were strongly inversely related [12]. Similarly, doctors who were completely burned out were less likely to find their work rewarding, to regard it as one of the most important aspects of their lives, or to believe that their work makes the world a better place than doctors who reported no burnout symptoms, all of which reflect a lack of finding meaning [13]. In the same way, higher levels of meaning salience were also correlated with lower levels of burnout and fatigue in academic program directors, both of which were linked to higher levels of quality of life [14]. According to a study on emergency physicians, even though burnout was also correlated with work-life balance, job satisfaction, social support, depressive symptoms, stress, and preoccupying thoughts, it was discovered that a sense of existential meaning derived from work was the most important factor linked to burnout, in the regression analysis [15]. It may mean that meaning mitigates the effects of everyday stressors and prevent burnout in those who work to help other people as evidenced by the data from social workers, in whom even after taking into account the number of hours worked per week and the years of experience, a higher sense of purpose in life was associated with lower rates of secondary traumatic stress, burnout, and vicarious trauma [11]. Same relationship between burnout and meaning was observed in firefighters and teachers [9,10]. In the current study, 34.6% doctors reported burnout. 42.3% doctors had high emotional exhaustion, 33.8% had high depersonalization and 39.7% had low personal achievement. The percentage of doctors with burnout was comparable to another research from Pakistan where 33.8% doctors reported it but on individual subscales, a wide gap existed from the current study. One possible explanation may be the use of full versus abbreviated MBI [19]. Another study from Pakistan reported a larger percentage of doctors showing the presence of high risk burnout subscale scores. However, fewer doctors from a single hospital participated in the study and the results obtained may reflect the experiences pertaining to the particular organizational climate [20]. Considering the advantages and limitations of this report, it is relevant and timely because there have been few studies on the meaning in life in the local population and therefore, it opens a new direction for research. Moreover, the doctors from both genders and with a diverse range of job titles and specialties were assessed, who are at the forefront of addressing the well-being needs of everyone else, often at the expense of their own. Correlational studies, on the other hand, cannot prove the relationship between variables definitively, and self-reported measures can introduce bias. It is the hope that future research will address these problems. Finally, Bulka considers burnout

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as the result of a "well-intentioned but improperly based search for meaning in life", where one identifies excessively with the work one does, hyperreflects on inadequacy of the rewards received, tends to discount positive everyday experiences and has trouble accepting one's finitude as well as the presence of unavoidable suffering [21]. These may be daily phenomena in a doctor's life. Therefore, the interventions that focus on these aspects can improve the sense of meaning and therefore, reduce the risk of physician burnout. This is in accordance with what the modern experts on burnout recommend [22].

CONCLUSION

Greater meaning in life leads to lower burnout in doctors from Pakistan. Doctors who have greater meaning in life experience less burnout. Meaning centered interventions can help combat the problem.

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