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Burnout, Spiritual Well-Being, and Life Satisfaction Among General Surgeons of Tertiary Care Hospital Lahore

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Abstract

The current study investigated the relationship between burnout, spiritual well-being, and life satisfaction among general surgeons of tertiary care hospitals in Lahore. Predictors of life satisfaction were also explored. A correlational research design and survey method were used. The sample size was determined online using the G. Power calculator on a two-tailed test with a medium effect size of N=100 general surgeons approached through a purposive sampling technique. Data were collected from January to March 2023 through the paper-pencil method consisting of a demographic information sheet, burnout inventory, spiritual well-being, and life satisfaction. Software of Statistical Package for the Social Sciences (SPSS) version 24 was used. The age ranges of the participants varied from 25 to 40 years, with 56 women and 44 men. Cronbach Alpha reliability coefficients of the scales were found to be excellent on the current sample. Results of the Person Product Moment correlation showed that burnout has a significant inverse relationship with spiritual well-being and life satisfaction. Spiritual well-being has a significant positive relationship with life satisfaction. Burnout, spiritual well-being, and demographic variables significantly predicted life satisfaction among general surgeons. Implications of the study will be discussed in the cultural context of Pakistan.

Keywords

Burnout, Spiritual Well-Being, Life Satisfaction, General Surgeons, Lahore.

Introduction and Literature Review

General surgery is an essential medical specialty that treats multiple surgical procedures and illnesses (Emore et al., 2016) l. It demands extensive knowledge, technological experience, and quick decision-making to deal with emergencies effectively. General surgeons treat hernias, trauma injuries, and gastrointestinal diseases. These diversities allowed them to learn and adapt to new difficulties, making each operating room day different (Al-Ghunaim et al., 2022). They provide comprehensive patient care with the collaboration of other healthcare professionals. They diagnose, treat, and manage surgical diseases for the most significant patient results (Ellis et al., 2021). It is a stressful but rewarding field because surgeons relieve pain, treat ailments, and improve patients' health. They enjoy seeing patients recover after successful procedures, resulting in life satisfaction and strengthening spiritual well-being. However, challenges in surgical fields (if not dealt with effectively for an extended period) can cause burnout (Engelhardt et al., 2020).

Burnout is a state of emotional, physical, and mental exhaustion caused by chronic workplace stress. It includes

feelings of cynicism, detachment, and a reduced sense of accomplishment (Schaufeli et al., 2017). It can significantly impact an individual's spiritual well-being, job performance, and quality of life. Maslach's Theory of Burnout (Maslach & Leiter, 2006) suggests three dimensions of burnout: Emotional exhaustion (feeling emotionally drained and depleted), depersonalization (developing negative and cynical attitudes toward others) and reduced personal accomplishment (experiencing a decreased sense of competence and productivity).

Shanafelt et al. (2016) found that 1 in 16 American surgeons had experienced burnout and suicidal ideation, and risk factors are increased three times at 45 years and above in the US population. Mullins et al. (2020) discovered that 71% of the 164 general surgery residents were at high risk of burnout. Of 114 general surgery residents in Canada, one-third are highly susceptible to burnout (Adams et al., 2018). Regardless of specialization, UK surgeons exhibit high emotional tiredness and cynicism (Upton et al., 2012). According to Johnson et al. (2020), 77% of the 3,807 surgeons were unhappy with their careers. 32% of 200 MBBS students and resident physicians at tertiary care institutions in South Delhi were found to be unsatisfied with their jobs and professions (Singh et al., 2021). A considerable percentage of surgeons had low (10, 27.8%), moderate (23, 63.9%), and high (3, 8.3%) levels of burnout globally (Patel et al., 2017).

A study on Spanish surgeons (Lucas-Guerrero et al., 2020) discovered that 55.1% of them reported prejudice, 73.9% reported verbal and psychological abuse, 4.6% of residents said they had suicidal ideation, and 47.6% said they were burned out. 47% of residents do not have the day off after to be on call, and 98% reported violating duty hours. It may arise from extended exposure to ongoing occupational stresses that exceed an individual's capacity for coping (Mischel & Shoda, 1995). 60% of 1671 neurologists in the US had at least one burnout symptom as a result of working in roles for which they were not trained in medical school (Busis et al., 2017). These jobs included teaching and administrative responsibilities in addition to clinical audits and hospital accreditation procedures. All of these could lead to burnout throughout the residency. They reported low life satisfaction and high burden (Elmore et al., 2016). Elmore et al. (2016) concluded that out of 753 general surgery residents in the US, 69 % suffered from burnout, and 44% considered dropping out of the training program.

Burnout is caused by an imbalance between the effort put out at work and the compensation one receives (Siegrist, 2016). It could result from a mismatch between an employee's demands and employment features, including work identity, skill variety, and feedback (Oldham et al., 2005). Conservation of resource theory (Hobfoll, 2011) explains that burnout occurs when individuals perceive a loss of personal resources or threats, including physical energy, time, social support, and psychological or spiritual well-being. Anjum et al. (2020) discovered a strong correlation between health workers' spiritual well-being and life satisfaction. Studies concluded that general surgeons with access to chaplaincy services had better spiritual well-being, which was favorably correlated with resilience and negatively correlated with burnout (Low et al., 2019; Rodrigues et al., 2018). A meta-analysis of 16 studies published in the World Journal of Surgery revealed a beneficial relationship between spirituality, religion, resilience, and well-being among healthcare professionals, including general surgeons. Positive social support, spiritual well-being, and mindfulness meditation positively correlate with life satisfaction and negatively with burnout (Bartholomew et al., 2018; Jesuyajolu et al., 2022).

A person's subjective assessment of their general well-being and contentment with life elements is called life satisfaction (Proctor et al., 2017). Personal values, social interactions, accomplishments, health, and unique circumstances are all included in the fulfillment, including employment, relationships, health, and leisure activities. It usually indicates a favorable assessment of one's life and the extent to which needs, desires and ambitions are satisfied on a personal level. It focuses on an individual's assessment of life conditions and experiences rather than fleeting happiness or feelings. Set point theory (Headey, 2007) explains that people have a baseline degree of life satisfaction impacted by hereditary and personality characteristics and that it is constant over time.

The theory of self-determination (Deci & Ryan, 2012) assumes that people have inherent psychological requirements for relatedness, competence, and autonomy. When these requirements are met, people feel better about themselves and have more life satisfaction. The broaden-and-build theory of pleasant emotions (Fredrickson, 2004) contends that experiencing happy feelings increases life satisfaction by expanding one's repertoire of thought-action combinations and strengthening one's resources. Luhmann and Intelisano (2018) provide the hedonic adaptation theory, which asserts that people eventually return to a baseline level of life satisfaction after adjusting to positive or negative life events. Thus, it is critical to understand how general surgeons' burnout, spiritual well-being, and life satisfaction are related to increasing and lessening burnout while improving spiritual well-being to address patient safety concerns successfully, which is the primary focus of the current study (Fung et al., 2022). The following objectives and hypotheses are formulated by considering the literature mentioned above.

Objectives

1. To determine the relationship between burnout, emotional exhaustion, depersonalization, personal accomplishment, spiritual well-being, and life satisfaction among general surgeons.
2. To investigate the predictors of life satisfaction among general surgeons.

Hypotheses

1. There will be a significant positive relationship between

personal accomplishment, spiritual well-being, and life satisfaction among general surgeons.
2. There will be a significant negative relationship between burnout, emotional exhaustion, depersonalization, spiritual well-being, and life satisfaction among general surgeons.
3. Burnout, emotional exhaustion, depersonalization, personal accomplishment, spiritual well-being, and demographic variables will predict life satisfaction among general surgeons.

Method

The current study unfolded the relationship between burnout, spiritual well-being, and life satisfaction among general surgeons of tertiary care hospitals in Lahore. Predictors of life satisfaction were also investigated. The correlational research design and survey method were used.

Sample

A sample of *N*=100 general surgeons was calculated through an online G. Power calculator on two-tailed with a medium effect size. They were approached through a purposive sampling technique. General surgeons were included in the study after completing their postgraduate training and working in the general surgery department in the government and private tertiary care hospitals in Lahore. Their personal information characteristics are reported in table one.

Table 1. Personal Characteristics Information of the General Surgeons (N=100).

Variables	*f (M, SD)*	Variables	*f (M, SD)*
Age	*M* = 28.03, *SD* = 1.27 (range: 25-40 years)	Working Experience	M = 3.24, SD = 0.21 (1-5 years)
Gender		Monthly Income	PKR. 1, 00000- 1300000
Women/Men	56/44	Residence	
Marital Status		Own/rented	64/36
Married/Single	48/52	Living with	
Number of Children		Family/hostel	55/45
0-1/2-3	35/13	One Special Sunday Per Month	100

Information presented in Table 1 indicates that the age ranges of the participants varied from 25 to 40 years, with 56 women and 44 men, of whom 48 are married and 52 are unmarried. Married participants have 1 to 3 children; 64 have their own house, 36 live in rented houses, 55 live with their families, and 45 live in hostels and earn an average PKR. One lakhs thirty thousand per month and has at least one special Sunday per month.

Demographic Information Sheet

The demographic form was used to collect personal and professional data on the following topics: age, gender, marital status, length of marriage, number of children, spouse education, spouse profession, monthly income, ownership of a home or rent, living with family or in a dorm, family system, area, total work history, part-time employment, work hours per week, years of residency, special Sundays per month, and weeknights spent on calls. There was no data on demographics in the findings section that was statistically not significant. The results section excluded the information of statistically non-significant demographics.

Maslach Burnout Inventory (MBI)

The Maslach Burnout Inventory (Maslach et al. 1997) comprises 22 items that are divided into three subscales: Items 1, 2, 3, 6, 8, 13, 14, 16, and 20 pertain to emotional exhaustion; Items 5, 10, 11, 15, and 22 pertain to depersonalization; and Items 4, 7, 9, 12, 17, 18, 19, and 21 pertain to personal accomplishments. The emotional tiredness a person feels from their area of work is measured by emotional exhaustion (EE). It addresses exhaustion, enervation, overtiredness, and loss of vitality. Understanding the tension in intricate interpersonal interactions like one's own self-concept and relationships with others is helpful. Depersonalization is a measure of one's capacity to look at oneself objectively or to separate from one's body or mind (DP).

Spiritual Well-being Index

Four items on the Spiritual Well-being Scale Index (Fisher & Ng, 2017) assess how well people relate to God, other people, nature, and themselves. There are five possible 5-point Likert response formats: 1 for not very important and 5 for highly significant. The current sample's Cronbach alpha reliability coefficient for the instrument was.89.

The Life Satisfaction Scale

An individual's overall cognitive assessments of their degree of life satisfaction are assessed using a unidimensional five-item measure known as the Life Satisfaction Scale (Diener et al., 1985). The seven points in the Likert response system go

from 1 (strongly disagree) to 7 (strongly agree). Its cutoff points were satisfied (21–35), unhappy (5–19), and neutral (20). Of the general surgeons in the current sample, 28% said they were unhappy with their life, 10% said they were neutral, and 62% said they were satisfied. For the current sample, the instrument's Cronbach's alpha reliability coefficient was 0.88.

Procedure

This correlational research study was conducted from January to June 2023 after obtaining approval from the Institutional Review Board, Lahore School of Behavioural Sciences of the University of Lahore, Lahore-Pakistan. Data were collected from January to March 2023, and the target population was general surgeons working in private and government tertiary care hospitals in Lahore after completing their postgraduate training. Formal permission to collect the data was taken from the higher authorities to approach the volunteer participants individually at their workplace as per their availability. Written informed consent letters were taken from the participants after explaining the study objectives and ensuring the anonymity of the data. The booklet consisted of a demographic information sheet, burnout inventory, and spiritual well-being scale, which was distributed individually and taken back the same day after its completion, which took 15-20 minutes on average. Participants were thanked for their cooperation. Data were visually assessed to detect the outliers (floor effects and sealing effects) and missing values and to identify the patterns before entering them into the Statistical Package for the Social Sciences (SPSS) version 24. Descriptive statistical analysis and the Shapiro-Wilk test were used to check the normality assumptions of the data. Reliability analysis was used to find out the internal consistencies of the measurement, while Pearson Product Moment correlation and linear regression analysis with stepwise method were used, respectively.

Results

The current study unfolded the relationship between burnout, spiritual well-being, and life satisfaction among general surgeons working in the tertiary care hospital in Lahore. Predictors of life satisfaction were also explored in the same population. Results are presented in the following tables.

Table 2. Reliability, Distribution of the Data, Actual and Potential Values of the Measures (N=100).

Variables	*K*	α	*M*	*SD*	Actual	Potential	Skew	Kurt
Burnout	22	.90	77.03	16.41	0-13	37-11	-.10	-.23
Emotional Exhaustion	9	.87	31.49	9.91	0-54	0-54	-.39	.46
Depersonalization	5	.89	30.46	6.39	0-25	2-25	-.25	-1.14
Personal Accomplishment	8	.76	15.06	6.28	0-48	14-44	-.07	-.19
Spiritual Well-Being	4	.89	12.22	06.12	10-20	4-20	-.56	.51
Life Satisfaction	5	.88	15.66	2.34	7-35	7-35	-.02	-.12

Note: K = total number of items, M = Mean, SD = Standard Deviations, Skew = Skewness, Kurt = Kurtosis

Table 2 indicates the psychometric properties, Cronbach alpha reliability coefficients, mean, standard deviations, and actual and potential values, including data distribution of the scales. Results show that burnout (α = .90), Emotional Exhaustion (α = .87), Depersonalization (α = .89), Personal Accomplishment (α = .76), spiritual well-being (α = .89), and life satisfaction (α = .88) measures have very good to excellent level of internal consistency. At the same time, the values of skewness and kurtosis indicate that the data is normally distributed and subjected to parametric statistical analysis.

Table 3. Inter-correlation between Burnout, Spiritual Well-being, and Life Satisfaction among General Surgeons (N=100).

Variables	EE	DP	PA	SWB	LS
Burnout	.89***	.77***	-.48***	-.56***	-.46***
Emotional Exhaustion		.28**	-.58***	-.48**	-.38**
Depersonalization			-.29**	-28*	-.18
Personal Accomplishment				.38**	.47***
Spiritual Well-Being					.57***
Life Satisfaction					

EE = Emotional Exhaustion, DP = Depersonalization, PA = Personal Accomplishment, SWB = Spiritual Well-Being, LS = Life Satisfaction, *** p < .000, ** p < .001 (2-tailed).

Findings of Pearson's Product-Moment correlation coefficient indicate that burnout has a significant inverse relationship with Personal Accomplishment (r = -.48, p < .000), spiritual well-being (r = -.56, p < .000), and life satisfaction (r = -.46, p < .000). While depersonalization has a significant inverse relationship with personal accomplishment and spiritual well-being. Spiritual well-being has a significant positive association with life satisfaction (r = .57, p < .000). Magnitude of the relationship is moderate, ranging from .46 to .89. Results supported hypothesis number one and two.

Table 4. Predictors of the Life Satisfaction among General Surgeons (N=100).

Models	Variables	*B*	*SE*	*β*	*t*	*p*	R^2	*ΔR2*
Model 1	Constant	27.66	3.43		8.06	.000	.22	.05
	Burnout	-.08	.04	-.22	-1.90	.001		
Model 2	Constant	15.59	6.43		2.42	.02	.35	.06
	Burnout	-.07	.04	-.20	-1.85	.03		
	Spiritual Well Being	.69	.32	.24	2.19	.03		
Model 3	Constant	20.09	6.61		3.04	.00	.41	.06
	Burnout	-.07	.04	-.19	-1.72	.02		
	Spiritual Well Being	.55	.32	.19	1.75	.02		
	One Special Sunday Per Month	-1.91	.88	-.24	-2.17	.03		

The results of linear regression analysis with a stepwise method were run to investigate the predictors of life satisfaction. The independent variables were burnout, emotional exhaustion, depersonalization, personal accomplishment, spiritual well-being, and demographic variables. The values of Durbin-Watson on the current sample are 1.83, which lies between the average values (< 1 and > 3) and indicates that it fulfilled the normality assumptions of the regression parameters. It retained the three models fit indices, R^2 = .22, F (1, 149) = 3.63, P < .000 for model 1 (burnout), R^2 = .35, F (2, 148) = 4.32, P < .000 for model 2 (burnout and spiritual well-being), and R^2 = .41, F (3, 147) = 4.59, P < .000 for model 3 (burnout, spiritual well-being, and particular Sunday per month. Values of t-tests ranged between -1.72 and 8.06, which indicated that all models significantly contributed to the outcome variable.

Values of unstandardized beta indicate that the Magnitude of the relationship is moderate, and each independent variable significantly contributed to the dependent variable, life satisfaction. Overall, three models (burnout, spiritual well-being, and one special Sunday per month) accounted for 41 % accumulated variances in the outcome variables, which means 59 % other variables that can predict life satisfaction among general surgeons, which need to be invested in further studies—the findings of Table 4 supported hypothesis number three.

Discussion

The current study aimed to determine the relationship between burnout, spiritual well-being, and life satisfaction among general surgeons of tertiary care hospitals in Lahore. Predictors of life satisfaction were also explored. Results supported the hypothesis that burnout, emotional exhaustion, and depersonalization have a significant positive relationship with each other, and these variables were inversely related to personal accomplishment, spiritual well-being, and life satisfaction among general surgeons.

The findings of the study were aligned with indigenous research conducted with different populations of health professionals in Lahore, Pakistan. For example, Zaman et al. (2020) found that Pakistani surgeons experienced a high rate of burnout attributable to increased working hours, less pay, and decreased job satisfaction. Bari et al. (2019) reported that out of 227, a significant number of pediatric postgraduate residents from tertiary care hospitals in Lahore, Pakistan suffered from moderate burnout. Sarwar et al. (2023) illustrated a significant positive relationship between burnout and mental and physical health-related quality of life among emergency physicians working at an emergency tertiary care hospital in Lahore, Pakistan. Atif and Maqbool (2015) reported low job satisfaction among doctors of tertiary care hospitals in Lahore. Ghazanfar et al. (2018) found a high risk of compassion fatigue, burnout, and low compassion satisfaction among physicians working in tertiary care cardiac hospitals in Pakistan.

Results of the current study remained consistent with international scientific literature as Sinbukhova et al. (2022) found a significant inverse relationship between burnout, psychological well-being, and life satisfaction among workers in anesthesiology and intensive care departments of hospitals in Russia. Hughes et al. (2002) reported a significant positive relationship with depression, self-harm tendencies, suicidal ideation, anxiety, stress, and lack of empathy in medical professionals. Wachholtz and Rogoff (2013) also found an inverse relationship between spirituality, burnout, and distress, with a significant positive association between spirituality and life satisfaction among medical students. Saravanabavan et al. (2019) found a statistically significant correlation between job satisfaction and burnout. The Maslach burnout inventory significantly correlated with stress and the emotional exhaustion and depersonalization domains.

The current study's findings supported the third hypothesis that burnout, spiritual well-being, and special Sunday on-call predicted life satisfaction among general surgeons. In Egypt, Abdelhadi Ibrahim et al. (2022) reported that demographic variables, including marital status, frequency of dealing with critical patients, and compassion fatigue, were significant predictors of burnout among physicians of tertiary care hospitals. Elmore et al. (2016) found that greeters' work hours per week predicted burnout and emotional exhaustion among residents of general surgeons in the US. Lucas-Guerrero et al.

(2020) found that duty-hour violations and not having the day off after to be on call were the significant predictors of burnout among Spanish Surgeons. Emotional intelligence, resilience, mindfulness, and the external characteristics of work engagement and job resources were predicted protective factors against burnout among US general surgery residents (Mullins et al., 2020). Adams et al. (2018) found that among Canadian general surgery residents, burnout was significantly predicted by staff members who were either poorly or moderately approachable, a lack of personal or family time, and a personal history of mental health or substance abuse-related problems. Sinbukhova et al. (2022) reported that spirituality buffers against emotional exhaustion and depersonalization in surgeons. Long work hours, severe academic pressure, a lack of autonomy, a high degree of work-home interference, and professional ambiguity may all be contributing factors to the high rate of burnout among people in different Asian nations, according to Ogawa et al. (2018). Kumar (2016) discovered that bureaucratic requirements, constantly shifting work environments, administration micromanagement, inadequate clinical supervision, sensationalistic media coverage of medical errors, scarce healthcare resources, litigious environments, and a poor work-life balance were among the reasons surgical residents experienced burnout and dissatisfaction from life.

Conclusion

The current study revealed a significant positive relationship between burnout, emotional exhaustion, and depersonalization; however, these variables were inversely associated with personal accomplishment, spiritual well-being, and life satisfaction among general surgeons. Burnout, spiritual well-being, and one special Sunday per month significantly predict life satisfaction among general surgeons.

Practical Implication

To ensure general surgeons' commitment, practical training, service delivery, and retention, the health service depends on their spiritual well-being and sense of fulfillment in life, resulting in patient care (Chellaiyan et al., 2022). This study will be helpful to policymakers, practitioners, and medical researchers since it emphasizes that the health sector should offer career counseling, social activity promotion, stress management strategies, and capacity-building efforts to surgeons in need. It may be helpful to comprehend the physiological or psychological characteristics that increase the risk of burnout, emotional exhaustion, and depersonalization in general surgeons.

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