Volume 3, Issue 10, 2025

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

BURNOUT, RESILIENCE AND LIFE SATISFACTION AMONG DOCTORS WORKING WITH HIGH-RISK PATIENTS

Ms. Maha Iqbal[*1], Mr. Gulam Mustafa Niazi[2], Prof. Dr. Imtiaz Ahmad Dogar[3], Ms. Sitara Ashraf [4]

Department of Psychiatry and Behavioral Sciences, Faisalabad Medical University

[*1]ansarimahaiqbal@gmail.com, [2]ghulammustfakhanniazi80@gmail.com, [3]psycon2005fsd@yahoo.com, [4]sitaraashraf4@gmail.com

DOI: https://doi.org/10.5281/zenodo.18205142

Keywords

Burnout, Resilience, Life satisfaction, Doctors, High Risk Patients, Medicine and Surgery Department

Article History

Received: 03 November 2025
Accepted: 17 December 2025
Published: 31 December 2025

Corresponding Author: *
Ms. Maha Iqbal

Abstract

Burnout has become a major problem among doctors that negatively affects not only the individual and the patients, but also the healthcare systems. Burned-out doctors show an increased likelihood of generating errors and poor decision-making. Doctors who possess resilience, along with life satisfaction, are less prone to stressors, thus preventing them from burnout. This study aimed to analyze the correlations between burnout, resilience, and life satisfaction among doctors (N = 151, Mage = 26.32; SD = 2.864) dealing with high-risk patients in the Medicine and Surgery departments of Allied Hospitals 1 and 2, Faisalabad, Pakistan. The data were collected using validated self-report questionnaires, including the Copenhagen Burnout Inventory (CBI), the Brief Resilience Scale, and the Satisfaction with Life Scale. Data was analyzed using both the Pearson Correlation Coefficient and hierarchical regression techniques. The results reveal a positive and significant relationship between resilience and life satisfaction ($r = 0.42$, $p<0.001$), while it also reports a significant negative relationship between resilience and burnout ($r = -0.18$, $p<0.05$). Similarly, results also showed a negative association between burnout and life satisfaction ($r = -0.36$, $p<0.001$). Overall results also showed that both resilience ($\beta = 0.39$, $p < 0.001$) and personal burnout ($\beta = -0.32$, $p < 0.001$) significantly predicted life satisfaction. These findings have implications for doctors and healthcare administrators in enhancing and enforcing programs that train doctors on resilience skills.

INTRODUCTION

In recent decades, burnout has become a global epidemic affecting various professions. The burnout is defined by Maslach et al. (2001) as a reaction to sustained work-related stress that depends on the level of emotional depletion, cynicism, and professional efficacy. It primarily affects work accomplishment, job satisfaction, interpersonal relations, and makes one more vulnerable to illness (Chemali et al., 2019). Resilience, which is the capacity to endure stress (Connor and Davidson, 2003), is a protective measure against burnout and is highly associated with life satisfaction (Aboalshamat et al., 2018), helping in maintaining greater well-being.

Doctors have a crucial part in patient care ensuring the proper health of populations. But in many cases, the doctors are exposed to extreme levels of occupational stressors and burnouts due to the nature of the work they undergo. These harsh factors can catastrophically impact their quality of life (Wu et al., 2007). A study carried out on the doctors nationwide in the US over a six-month period revealed that 44.0% of these doctors had one or more symptoms of burnout in their career (Harry et al., 2020). Another study by the European General Practice Research

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ISSN: (e) 3007-1607 (p) 3007-1593

Network in 2008 reported that burnout was also a recurrent issue across Europe (Soler et al., 2008). Several studies showed that burnout was highly prevalent among doctors and healthcare professionals across the world, including China, Poland, and Italy (Lo et al., 2018; Misiołek et al., 2015; Sanfilippo et al., 2018).

According to the recent survey (American Medical Association & American Medical Association, 2025), the prevalence of burnout is highest among the departments: Emergency medicine (52.2%), Family medicine (46.4%), Obstetrics and gynecology (45.8%), Pediatrics (42.1%), Internal medicine (42%), Hospital medicine (40.6%). In another study, when compared with doctors in other departments (38%) and the general population (30%), Emergency Medicine doctors were particularly vulnerable to burnout (Arora et al., 2013). In the same way, the burnout rates are so much higher in orthopedic surgery because its training is extremely challenging, because of the necessity both to increase knowledge and to learn surgical techniques (Daniels et al., 2016).

Particularly, the doctors in Pakistan are more susceptible to burnout. The rates of burnout and stress are highly prevalent among house officers, residents, surgeons, and nurses due to low salaries, high work demands, and a lack of support from colleagues (Liaqat et al., 2019; Mazhar et al., 2019). Many studies report that numerous factors are coupled with burnout, including time strain, role conflicts, lack of support from work-fellows, high patient-to-staff ratios, frequent contact with terminally sick patients, long operating hours, and frequency of on-call duties (Ahmed & Noushad, 2013). Thus, doctors experience psychosocial stressors that create a stressful environment, eventually resulting in burnout syndrome and other maladaptive behaviors that impact their well-being and reduce productivity (Gómez et al., 2019).

According to the recent studies, psychological resources are important in determining how an individual is perceived to control the challenging and stressful environment (Lenzenweger, 2004). The personality factor that has been studied as a key predictor of burnout is resilience (García and Calvo, 2011). Resilience is a buffering mechanism against the adverse impact regarding stress and reduces burnout (Guo et al., 2017). A study explains that resilience is one element that may help to explain why certain doctors can manage stress well and recover from stressful situations (West et al., 2020). According to West et al. (2020), a large-scale study on 5445 US doctors reported that resilience is negatively associated with symptoms of exhaustion. Highly resilient doctors are more expected to adapt to tough situations and pressurized tasks in clinical settings (Epstein & Krasner, 2013). Several studies have also suggested that resilience might safeguard individuals from severe stress, and it inversely impacts the burnout and depressive symptoms among hospital personnel (Di Giuseppe et al., 2021; Meynaar et al., 2020).

Researches in resident doctors demonstrate that those doctors who are more resilient reported less burnout in both medical and surgical specialties. In a relevant example, a U.S. national survey of residents reported a positive relationship between resilience, program support, and autonomy, and a negative relationship between resilience and burnout in both medical and surgical trainee groups (Nituica et al., 2020). Similar strong negative associations have been found between resilience (and grit) and burnout among surgeons in surgical specialties like orthopedics (Hamdan et al., 2023). Therefore, developing resilience among doctors should be prioritized.

According to Shi et al. (2015), life satisfaction, positive affect, and negative affect make up positive well-being. Similarly, life satisfaction is a significant factor of positive well-being (Vittersø, 2025), and it measures how individuals judge their lives against self-identified criteria and against what they possess. Health-care worker satisfaction, in particular, affects the productivity, quality, efficiency, and dedication to work and, at the same time, health care costs. (Kołtuniuk et al., 2021). Stress and burnout have a detrimental effect on life quality and can result in a number of unfavorable consequences. According to some studies, younger doctors who perform high-risk procedures and experience work-life conflicts are at greatest risk (Lacy & Chan, 2017). Factors that are frequently related to higher burnout include younger age, being female, overloaded work-related tasks, long working hours, specialty types (e.g., emergency medicine, high-acuity fields), and insufficient support (Ashraf et al., 2020). Factors that frequently influence life satisfaction among doctors are daily work and home stressors, job

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ISSN: (e) 3007-1607 (p) 3007-1593

requirements, and peer relationships. Doctors who tend to have a good work-life balance and better support from coworkers report higher life satisfaction (Mahmood et al., 2019).

LITERATURE REVIEW

Burnout is an "occupational phenomenon", not a medical condition, that consists of emotional exhaustion, physical tiredness, and cognitive fatigue (Maslach & Leiter, 2001). Constant burnout is the reason behind diminished quality of life and is linked to increased vulnerability to sleep-related issues as well as to numerous medical conditions such as mild cognitive impairment, diabetes, and cardiovascular disease (Grossi et al., 2015). Burnout has become a global crisis, especially among doctors, it has reached epidemic levels. The healthcare industry is posing several stressors on healthcare professionals, just like other professions, including numerous problems from meeting time constraints to unmanageable work procedures, incompatibility with seniors, challenging demands, and the burdens of clinical work (Fitzpatrick et al., 2019). The syndrome of professional burnout has been reported among physicians in various countries (Romani & Ashkar, 2014) and in most fields of medical practice, such as general medicine, surgery, intensive care, surgeons, oncologists, and anesthetists (Shanafelt, 2009)

The concept of burnout was presented first in the occupational field. It was an American Psychologist Herbert Freudenberger who coined this term and he described it as being the extinction of motivation or incentive (Freudenberger, 1974). In the conceptualization of burnout, Maslach and Jackson defined it as a three-dimensional construct which incorporated the emotional exhaustion, depersonalization, and lack of personal accomplishment (Maslach et al., 2001). Burnout has been formally recognized by the WHO as a syndrome caused by chronic stress related to the workplace that has not been effectively managed and was included in the 11th Revision of the International Classification of Diseases (World Health Organization: WHO, 2019).

Burnout is also well-known issue that affects work performance, job satisfaction, relationships with other people, and susceptibility to illnesses (Chemali et al., 2019). Burnout has also been associated with anxiety symptoms, low job satisfaction, and a higher risk of medical errors (Lo et al., 2018). It also plays a major role in deteriorating health, resulting in headaches, sleep issues, exhaustion, marital and familial issues, anxiety, depression, high blood pressure, and may lead to alcoholism and drug abuse (Maslach et al., 2001). Moreover, Irregular shift work, including working hours and night work, which disturbs the circadian rhythm, also has an adverse effect (Basile, 2021).

Burnout, a global issue, has long-term effects on doctors' careers, patient care and safety, medical workforce stability, and the healthcare system (West et al., 2006; Shanafelt et al., 2009; Liu et al., 2024). The risk of patient safety incidents has doubled in case of doctor burnout (Hodkinson et al., 2022), and the latter is strongly correlated with such negative outcomes as medical errors, increased costs incurred by health care professionals, and negative health outcomes and poor quality of care in the long run (Moss et al., 2016; Pastores et al., 2019; Sinbukhova et al., 2019). According to the literature, Lacy and Chan (2017) report that increased burnout levels are associated with early retirement, increased job change, and clash of marital or relationship with increased depression, alcohol abuse, drug abuse, and suicide. Physician burnout, therefore, is a significant issue in medical and even in the health context.

Resilience is an important psychological resource that has attracted a lot of attention in the medical field by the researchers. The general definition of resilience is the capacity to recover or survive in a situation and therefore record beneficial results even after an unpleasant circumstance or experience (Vella & Pai, 2019). According to Connor and Davidson, resilience is a personal attribute that determines individuals to succeed in the face of adversities (Connor and Davidson, 2003). In the framework of resilience among doctors, it is viewed as a dynamic process and prompt response to various challenges (Sheikhrabori et al., 2022). The resilient doctors do not mean that they do not feel or experience grief, anxiety, or stress; it is only that they apply their best coping strategies to cope with the crisis and live to cope with the challenges (Cherry, 2022).

In psychology, the concept of resilience emerged in the field of developmental psychology. Emmy Werner, developmental psychologist, in her

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ISSN: (e) 3007-1607 (p) 3007-1593

popular research of children being raised in stressful conditions discovered that some children managed to succeed even despite the difficulties encountered (E. Werner, 1997). These children also exhibited what Werner referred to as resilient behavior, they adjusted themselves positively to adversity and learned to cope. The American psychological association (2014) defines resilience as a process of adapting effectively to misfortune, trauma, tragedy, danger or even a major stressful experience.

Highly resilient individuals were observed as persevering, self-reliant, and equanimous, and they possessed explicit goals in life which they were working tirelessly to attain despite frustrations and obstacles (G. M. Wagnild and Collins, 2009). It assists individuals in acquiring coping mechanisms, reduces anxiety, and gain skills in problem-solving (Rushton et al., 2015). According to Ferreira and Gomes (2021), resilience plays a key role in buffering against the intense stressors, resulting in decreased levels of burnout and increased personal accomplishment. Thus, resilience acts as a protective factor. Resilience results in enhanced patient care quality, professional autonomy, and increased job satisfaction (Fazekas et al., 2024).

Resilience not only enables doctors to combat stress but also to bounce back from it (Aburn et al., 2016). Resilience in primary care settings was identified to be a combination of personal aspects with social and workplace characteristics (Robertson et al., 2016). Personal resilience helps doctors to adapt to sudden changes in patient condition, emergencies, and high-stakes choices within the medical profession, thereby facilitating the preservation of safe patient care (W. Wang et al., 2024). For doctors, whose duties often involve life-threatening consequences, ethical stress, and fast responses, resilience improves the ability to cope, educate, ponder, and recover, which subsequently reduces the burnout risk and enhances well-being (Haraldseid-Driftland et al., 2022). Highly resilient people have enhanced coping to work stress and difficulties, hence enhancing performance (Abro et al., 2023). Thus, doctors' resilience reduces burnout and enhances mental health.

Life satisfaction has been described as the cognitive and affective assessments of an individual concerning his or her life (Diener et al., 2009). Life satisfaction is an important determinant of the overall well-being and, therefore, a key predictor of psychological well-being (Lombardo et al., 2018). Wijayatunga (2021) found that the levels of life satisfaction were much higher among healthcare professionals with higher status, postgraduate qualifications, higher income, and perceived social support. An additional cross-sectional survey of nurses in Türkiye further revealed that positive working conditions were linked with positive satisfaction with life (Medeni et al., 2025).

In the 1980s, Ed Diener suggested a systematic model of subjective well-being that consists of three primary components, namely, (1) positive affect, (2) negative affect, and (3) life satisfaction. Despite the fact that the two former are emotion-related, the third, life satisfaction, is the cognitive aspect of subjective well-being (MSEd, 2023). According to Diener et al. (2009), the level of positive evaluation of the quality of life by a person is defined as life satisfaction. Positive Psychology, led by researchers like Martin Seligman, has changed life satisfaction to be treated alongside flourishing, meaning, and purpose, rather than just hedonic happiness alone (Petrakova, n.d.). The existing empirical data reveal that high life satisfaction correlates with better health outcomes, less stress, better coping skills, fewer visits to the doctor, and numerous other positive implications (Kim et al., 2013). However, doctors often face long working hours, rotating shifts, high stress, professional ethics, and poor working conditions, which all impact life satisfaction (Mahmood et al., 2019).

Many studies report that individuals with higher life satisfaction tend to show positive work-related behaviors, i.e, helping coworkers, going beyond formal job duties, lower emotional exhaustion, and more trust in colleagues (Merkin, 2023). Therefore, it describes that higher life satisfaction is also linked with better performance, commitment, and lower turnover intention for organizations. Organizations benefit when employees express satisfaction with their life and work-life balance through reduced absenteeism, increased retention, and engagement, which is the foundation of productivity and the long-term sustainability of organizations (Leitão et al., 2019). Thus, when life satisfaction is higher,

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ISSN: (e) 3007-1607 (p) 3007-1593

doctors are better able to provide quality patient care, maintain professional standards.

Burnout has captured a great part of scholarly attention. Many studies have tended to show a significant negative relationship between burnout and life satisfaction (Łaskawiec-żuławińska et al., 2024; Shim & Go, 2025). For example, in a recent study on medical students (Wang et al., 2022), burnout had negatively predicted life satisfaction. Additionally, the association between burnout and life satisfaction among doctors has not been extensively studied. Many empirical findings reveal an inverse relationship between resilience and burnout. For example, Alonazi et al. (2023) found a negative correlation between psychological resilience and burnout among nurses. Moreover, McCain et al. (2017) report that higher burnout was linked with lower resilience among doctors in the UK, leading to higher use of maladaptive coping skills. A systematic review of surgeons also identified resilience as a buffer against the negative impacts of burnout and work-related stressors (Otukoya et al., 2025).

Extensive empirical data indicate a positive association between resilience and life satisfaction, where higher resilience tends to predict higher life satisfaction. Greater population studies (Karataş & Tagay, 2020) and longitudinal studies (Wang et al., 2022) confirm that resilience is positively correlated with life satisfaction. Secondary outcomes or related well-being constructs, such as quality of life, sense of well-being, and professional quality of life, are also often positively associated with resilience (Fazekas et al., 2024). For instance, doctors who were more resilient experienced fewer burnout symptoms and improved satisfaction with or perceived quality outcomes (McCain et al., 2017). Hence, resilience is generally seen as a factor that promotes subjective well-being (including life satisfaction). Despite an expanding body of research on doctors' well-being, including the variables resilience, burnout, and life satisfaction, several significant gaps remain, especially in the context of doctors working with high-risk patients in the Medicine and Surgery departments.

Few studies have simultaneously measured resilience, burnout, and life satisfaction within the same model and much of the literature is concentrated among nursing, medical students, or healthcare professionals, especially in high-income countries. Systematic reviews show that the majority of burnout/stress research focuses on nurses rather than physicians (Lozano et al., 2021). Moreover, none of the studies measure these relationships among various high-risk specialties, like Medicine versus Surgery. Although most studies report burnout in medicine, emergency, surgery, and psychiatry separately (Anjum et al., 2023; McCain et al., 2017; Zhang et al., 2020; Murtaza, 2025) but few studies compare Medicine and Surgery departments in the same sample. Lastly, there is insufficient measurement of global life satisfaction among doctors. Although most of the available literature focuses on quality of life, job satisfaction, or work-life balance, a smaller number of studies specifically quantify life satisfaction with validated measures (Sarwar et al., 2023).

These gaps are more intense in the Pakistani context. Although research has documented high burnout among doctors in various specialties in Pakistan (Hussain et al., 2022), there are very limited studies that include resilience as a protective factor and life satisfaction as an outcome in high-risk specialties such as Surgery and Medicine. Comparative studies are lacking between these departments, and resilience and life satisfaction metrics are barely validated in Pakistani doctors. In order to fill these gaps, the proposed research will investigations the relationships between resilience, burnout, and life satisfaction among the doctors involved in dealing with high-risk patients in the Medicine and Surgery departments. The study will also offer new insights on the connection between resilience and life satisfaction with burnout in high-risk clinical settings in Pakistan by measuring all three variables at the same time and comparing them across these two high-need specialties.

Hypotheses of the study

1. There will be a significant positive correlation between resilience and life satisfaction.
2. There will be a significant negative correlation between burnout and life satisfaction.
3. There will be a significant negative correlation between resilience and burnout.

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4. Resilience and burnout will jointly and significantly predict life satisfaction among doctors dealing with high-risk patients.
5. Female doctors will have higher burnout levels than male doctors.
6. Married doctors will report higher resilience than those who are unmarried.
7. Doctors in the Surgery department report a higher level of burnout than those in the Medicine department.

METHODOLOGY

Sample

A quantitative, cross-sectional, correlational research was conducted in the surgery and medical department of Allied 1 and 2 Hospital, Faisalabad. It involved the doctors dealing with high-risk patients. The study sample consisted of 151 medical doctors involved in the care of high-risk patients (77 female, 74 male), ranging in age from 22 to 32 (M = 26.32, SD = 2.86). Sixty percent were unmarried. The breakdown of medical specialty was: 45.7% for surgery and 54.3% for medicine. Sixty-two percent were house-officers, and thirty-seven percent were residents.

Demographics

Demographic variables such as age, gender, marital status, monthly income, current position, years of experience and on-call frequency were collected.

Copenhagen Burnout Inventory (CBI)

This 19-item scale, developed by Kristensen et al., measured the burnout among doctors. It assessed burnout in three different aspects: personal burnout, work related burnout, and patient related burnout. All items are scored on a 5-point Likert scale (Always, Often, Sometimes, Seldom, Never) and computed to average the responses on each scale, where higher scores indicate higher burnout. Internal reliability in the present study was α = 0.79 for the Overall Copenhagen Burnout Inventory, α = 0.66 for Personal Burnout, α = 0.67 for work-related burnout (without recoding the items), and α = 0.74 for patient-related Burnout.

Brief resilience scale (BRS)

The 6-item Brief Resilience Scale was used to measure resilience (Smith et al., 2008). It assesses how people bounce back to life after stress. The items are evaluated on a 5-item Likert scale (where 1 = strongly disagree, 5 = strongly agree) and will be summed up (with a recoding of three items) to give scores with higher scores indicating greater resilience. In the current study, internal reliability was = 0.50.

Satisfaction with Life Scale

This five-item Satisfaction with Life Scale (SWLS) scale is based on the subjective assessment of the sense of life satisfaction developed by Diener et al. It measured global cognitive judgments of one's life satisfaction on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The Cronbach's alpha value for this scale is 0.80.

High-risk Patients

In the conceptualization of high-risk patients, doctors from the medicine and general surgery departments of the hospital were included, as these specialties routinely care for patients with critical, life-threatening conditions. "High-risk patients" are defined as those with severe, acute, or complex medical problems requiring intensive monitoring or urgent intervention. For example, in the field of surgery, emergency patients are specifically defined as the high-risk group because of the elevated morbidity and mortality (Phillips et al., 2019). By extension, we consider any patient needing intensive or emergency care, such as multi-system organ failure, acute trauma, or post-operative critical care, to be "high-risk" in our study context (Phillips et al., 2019).

Doctors from medicine and general surgery were included specifically because these departments regularly treat high-risk patients. In other words, doctors in these specialties face similar stressors to those documented in "high-stress" units (Filaj et al., 2025). Medicine wards (e.g. managing sepsis, cardiac crises) and surgical wards (e.g. managing perioperative critical cases) involve analogous high-acuity cases, justifying this study focus on these departments. Likewise, caring for critically ill patients is described as a highly emotionally charged work environment; doctors in such settings are known to be at elevated risk of burnout (Ciuffini et al., 2022).

Procedure

This current study was conducted in the medicine and surgery departments of Allied 1 and 2

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ISSN: (e) 3007-1607 (p) 3007-1593

hospitals, Faisalabad. The doctors working in these departments were invited to participate in the research. The researcher in-person visited each department and approached those doctors fulfilling the inclusion criteria. They were informed about the study objectives, confidentiality, and voluntary participation. They were also informed of their right to withdraw at any time without consequences. Those who agreed were given questionnaires to complete on the spot, while busy doctors were given a copy of the questionnaire to return within the time frame of 3 days. Written Informed Consent was also obtained from each participant

RESULTS

Table 1

Descriptive Statistics and Alpha Reliabilities of All Study Variables (N=151)

Scales		*k*	M	*SD*	*a*	Potential Range	Actual Range	Skew-ness
BRS		6	17.24	3.29	0.50	6-30	6-25	-0.19
SWLS		5	20.96	6.40	0.80	5-35	7-35	0.09
CBI		19	52.30	13.37	0.79	0-100	18-89	0.18
	Personal Burnout	6	55.71	16.13	0.66	0-100	8-91	0.13
	Work-related Burnout	7	52.50	13.24	0.67	0-100	8-85	-0.29
	Patient-related Burnout	6	48.60	19.72	0.74	0-100	0-100	0.02

Note. BRS = brief resilience scale; SWLS = satisfaction with life scale; CBI = Copenhagen burnout inventory

Table 1 postulates mean, standard deviation, alpha reliability, and skewness. Values of all variables examined in the current study.

Table 2

Correlational Matrix for All the Variables Used in The Study **(N=151)**

Variable	1	2	3	4	5	6
1. BRS	_					
2. SWLS	0.42***	_				
3. CBI	-0.18*	-0.36***	_			
4. PB	-0.10	-0.35***	0.78***	_		
5. WB	-0.12	-0.26**	0.83***	0.46***	_	
6. CB	-0.20*	-0.28***	0.87***	0.48***	0.59***	_

Note. *p < 0.05, **p < 0.01, *** p<0.001, BRS= Brief Resilience Scale, SWLS= Satisfaction with Life Scale, CBI= Copenhagen Burnout Inventory, PB= Personal Burnout, WB= Work-related Burnout, CB= Patient-related Burnout

Table 2 explains the intercorrelations among scales and subscales. The results shows Pearson correlation between resilience (BRS), burnout (CBI) and life satisfaction (SWLS).

Table 3

Hierarchical Multiple Regression predicting life satisfaction from Resilience and Burnout **(N=151)**

Variables	B	*SE*	*β*	t	R^2	$\triangle R^2$
Step 1						
Resilience	0.81	0.15	0.42	5.59***	0.17	0.16
Step 2						
Resilience	0.75	0.14	0.39	5.47***	0.28	0.27
Personal Burnout	-0.02	0.01	-0.32	-4.56***		

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Note Step 1: F (1, 151) = 31.28, p < 0.001. Step 2: F (2, 151) = 28.14, p < 0.001

Table 3 shows Multiple Linear Regression indicating Resilience, Burnout and its subscales as predictors of life satisfaction among doctors dealing with high-risk patients.

Table 4

T- Test analyses were carried out to seek the gender differentiation (i.e., males, females) with reference to study variables.

Scales & subscales	Males (*n* = 74)		Females (*n* = 77)			95% CI		Cohen's *d*
	M	*SD*	*M*	*SD*	*t* (151)	*LL*	*UL*	
BRS	16.71	3.21	17.74	3.30	-1.93	-2.07	0.02	0.31
SWLS	21.11	7.12	20.79	5.66	0.30	-1.76	2.39	0.05
CBI	50.49	14.28	53.96	12.29	-1.60	-7.76	0.82	0.26
PB	54.05	17.04	57.31	15.13	-1.24	-8.44	1.94	0.20
WB	50.29	14.39	54.59	11.75	-2.01*	-8.54	-0.06	0.33
CB	47.18	20.83	49.95	18.63	-0.86	-9.13	3.60	0.14

Note. *p < 0.05, **p < 0.01, *** p<0.001, BRS= Brief Resilience Scale, SWLS= Satisfaction with Life Scale, CBI= Copenhagen Burnout Inventory, PB= Personal Burnout, WB= Work-related Burnout, CB= Patient-related Burnout

The above table indicates the mean, standard deviation, and t-test value for males and females on the Brief Resilience Scale, Satisfaction with Life Scale, Copenhagen Burnout Inventory, and its subscales.

Table 5

T- Test analyses were carried out to seek the marital status differentiation (i.e., married, unmarried) with reference to study variables

Scales & subscales	Married (*n* = 57)		Unmarried (*n* = 91)			95% CI		Cohen's *d*
	M	*SD*	*M*	*SD*	*t* (151)	*LL*	*UL*	
BRS	16.88	3.61	17.94	2.60	-2.09*	-2.08	-0.06	0.33
SWLS	21.81	5.99	20.60	6.64	-1.14	-3.29	0.88	0.19
CBI	52.43	10.31	51.76	14.84	-0.32	-4.76	3.42	0.05
PB	55.41	11.27	55.67	18.65	0.11	-4.59	5.13	0.02
WB	52.81	11.92	52.05	14.06	-0.35	-5.03	3.51	0.06
CB	49.04	16.48	47.57	21.13	-0.47	-7.62	4.67	0.07

Note. *p < 0.05, **p < 0.01, *** p<0.001, BRS= Brief Resilience Scale, SWLS= Satisfaction with Life Scale, CBI= Copenhagen Burnout Inventory, PB= Personal Burnout, WB= Work-related Burnout, CB= Patient-related Burnout

The above table indicates the mean, standard deviation, and t-test value for marital status differentiation on the Brief Resilience Scale, Satisfaction with Life Scale, Copenhagen Burnout Inventory, and its subscales

Table 6

T- Test analyses were carried out to seek the department-wise differentiation (i.e., medicine, surgery) with reference to study variables

Scales & subscales	Medicine (*n* = 82)		Surgery (*n* = 69)			95% CI		Cohen's *d*
	M	*SD*	*M*	*SD*	*t* (151)	*LL*	*UL*	
BRS	17.51	3.51	16.91	2.99	1.13	-0.44	1.64	0.18
SWLS	20.64	6.48	21.30	6.32	-0.63	-2.72	1.41	0.10

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CBI	53.72	12.66	50.52	14.07	1.46	-1.14	7.54	0.24
PB	58.74	15.63	52.11	16.07	2.55*	1.50	11.75	0.42
WB	53.44	12.56	51.33	14.01	0.96	-2.20	6.43	0.16
CB	49.09	19.88	48.01	19.66	0.33	-5.30	7.46	0.05

Note. *p < 0.05, **p < 0.01, *** p<0.001, BRS= Brief Resilience Scale, SWLS= Satisfaction with Life Scale, CBI= Copenhagen Burnout Inventory, PB= Personal Burnout, WB= Work-related Burnout, CB= Patient-related Burnout

The above table indicates the mean, standard deviation, and t-test value for medicine and surgery departments on the Brief Resilience Scale, Satisfaction with Life Scale, Copenhagen Burnout Inventory, and its subscales.

DISCUSSION

This study focuses on investigating the association between burnout, resilience, and life satisfaction among doctors dealing with patients at high-risk in Medicine and Surgery Departments. The results largely supported the hypothesized relationships.

The results supported hypothesis 1, showing a statistically significant positive relationship between resilience and life satisfaction, which aligns with the growing body of research (N. Wu et al., 2022; Karagöz et al., 2021; Khalid, 2021; Sclanavo, 2023; Aboalshamat et al., 2018). In line with this study, West et al. (2020) showed that doctors facing high-risk patient care demands, it appears that those who are more resilient are better able to maintain a satisfying life, and perhaps buffer the impact of work stress on their personal life. The findings align with the Conservation of Resources (COR) theory (Hobfoll, 2010). According to this theory, resilience acts to safeguard against resource loss, promoting positive outcomes and therefore enhancing life-being.

The results of the current study confirm the hypothesis 2 that resilience and burnout are negatively related to each other among health care providers who work with high-risk patients, which proves empirical evidence in healthcare environments (Castillo-González et al., 2023; Zahednezhad et al., 2021; J. L. Jackson et al., 2023; Amiri et al., 2024). It states that the greater the resilience of doctors working with high-risk patients, the lower the burnout. Stress, according to the COR theory (Hobfoll, 2010), is caused by the threat to valuable personal resources. Nevertheless, resilient doctors can better withstand their resources and therefore defend themselves against resource breach.

This finding supported hypothesis 3, indicating that burnout has a statistically significant negative correlation with life satisfaction, which corresponds well with the emerging body of research, especially in healthcare and other high-stress groups (Łaskawiec-żuawińska et al., 2024; Marzo et al., 2022; Uchmanowicz et al., 2019). This demonstrates that physicians with high burnout rates when handling high-risk patients have higher chances of reporting lesser levels of life satisfaction. In reference to COR theory (Hobfoll et al., 2010), in case of constant stressors, people experience widespread loss of resources. It usually leads to adverse consequences, i.e., burnout, which in its turn causes reduced life satisfaction.

This study also analyzed the effect of resilience and burnout on life satisfaction. The multiple regression model was used, and the results found that both variables had a significant predictive effect on life satisfaction, explaining 28% variance in life satisfaction. In this model, resilience was a significant positive predictor of life satisfaction, suggesting that resilience acts as a protective factor for doctors working with high-risk patients and therefore is a key determinant of well-being. This finding is consistent with existing literature (Gonzalez et al., 2025; Sultana et al., 2024). This can be explained by the fact that resilience provides people with the capacity to persevere through hardship (Sclanavo, 2023) and acts to safeguard against life challenges and difficulties (M. Liu et al., 2024).

In contrast, burnout was found to be a significant negative predictor of life satisfaction (R^2 =-0.28, p < 0.001), suggesting that higher burnout level has a significant effect on lower life satisfaction. These results supports the existing literature (Q. Wang et al., 2022; Permarupan et al., 2020; Shim & Go, 2025). While burnout does affect life satisfaction, not all burnout domains contributed. This study's results showed that only personal burnout was a significant predictor of life satisfaction, rather than work or patient

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burnout. It suggests that the internal, individual experience of burnout may matter most for life satisfaction in this context of high-risk demands. Therefore, the internalized experience of burnout has the greatest impact on overall life satisfaction (De Diego-Cordero et al., 2021).

It was hypothesized in hypothesis 5 that female doctors would report higher overall burnout than the males. While the results showed that significant gender difference emerged on the work-related burnout subscale. This indicates that female doctors in our sample experience a greater burden in the work domain. This could be explained in light of gender-specific stressors such that female doctors are exposed to greater job demands (Lyubarova et al., 2023) leading to an increase in work-related burnout. Moreover, dual responsibilities, including professional duties along with domestic/caregiver responsibilities (Marshall et al., 2020), and gender-related discrimination (Rotenstein et al., 2021) suggest a reasonable explanation.

The results did not support hypothesis 6 that married doctors tend to be more resilient than the unmarried. Only one prior study, conducted on students, similarly reported lower resilience among married individuals, indicating limited supporting literature. (Nijimbere et al., 2017). These results may be interpreted as married doctors have more family and marriage-related burdens, including child-care, family and household management (Załuski & Makara-Studzińska, 2024). Unmarried doctors, on the contrary, might have more flexibility and autonomy, which allows them to concentrate on the development of coping strategies and self-management (Mansi et al., 2025). Moreover, in the context of Pakistan, the marital role is also characterized by additional non-work demands that can further worsen the work-family conflict and diminish resilience (Misfin et al., 2024).

The study results did not support hypothesis 7 that doctors working in the surgery department will exhibit higher burnout than those working in the medicine department. Instead, the data revealed that doctors working in the medical department reported a higher level of burnout. Low et al. (2019) in a meta-analysis found that burnout among medical and surgical residents is higher, but the difference is not significant. Therefore, the results of this study suggest that many factors can be found to play a contributing role such that doctors in the medical department often deal with chronically ill at-high-risk patients, with slower progress, and have a high cognitive burden (Iskander, 2018). Moreover, cultural factors in Pakistani doctors also play a key role, such that the hierarchical norms, high burden of patients, and limited institutional support have been identified as contributors to doctor burnout in Pakistan (Hashmi et al., 2021). Therefore, all these factors contribute to emotional strain and burnout in doctors and appear to be the reasons behind a higher level of burnout in the Medicine department.

Limitations and Recommendations

The sample used in this research is limited to doctors who treated high-risk patients in the Medicine and Surgery Department Allied 1 and 2 Hospitals at Faisalabad. The duration was restricted and informal conclusions are not guaranteed since it was a correlational study. The data collection was done through self-report questionnaires only and this can lead to common method variance, social desirability or response bias.

To be more generalizable, further studies might increase sampling to other specialties, hospitals, and regions. Mediation or moderation analysis can also be incorporated into future studies. A qualitative study is needed to understand the impact of resilience in doctors on burnout and its impact on their life satisfaction. Longitudinal study can also be applied in establishing the causal path or bidirectional relationship.

Conclusion

The purpose of this study was to explore the association between resilience, burnout, and life satisfaction among doctors dealing with high-risk patients in the department of medicine and surgery. As per the findings of this study, resilience and personal burnout are key determinants of life satisfaction among doctors. Resilience acts as a protective factor, while personal burnout acts as a risk factor. Although other burnout dimensions showed correlation with life satisfaction, their predictive utility was not robust when controlling for personal burnout and resilience. There were also group differences in demographic comparisons, such as that females rated higher in work-related burnout, unmarried doctors rated higher in resilience, and

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medicine doctors rated higher in personal burnout than surgeons. These observations help to isolate those areas of burnout that would be most pertinent to well-being in the medical profession. The provided results also indicate the necessity to reinforce the resilience and address personal burnout in an effort to facilitate life satisfaction among medical workers and physicians in high-stress environments.

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