

The moderating role of resilience on the relationship between self-efficacy and burnout among physicians

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Abstract

This investigation has aimed to observe the impact of resilience on the association between of Self-efficacy with Burnout amongst physicians. The data was gathered from physicians N=240 (n=120 males and n=120 females) serving in the different hospitals of Wah Cantt, Rawalpindi and Taxila by using purposive sampling technique. Their age was ranging from 26 to 45 years. The key instruments that were utilized in the study were Maslach burnout inventory (Maslach, 1986) comprising of 22 items and Generalized self-efficacy scale (Schwarzer, 1992) was comprising of 10-items and resilience subscale of the Positive psychological capital (Luthans et al., 2006) consisting of four items. Findings showed that resilience significantly moderated the association of self-efficacy with burnout. Implications of the findings were discussed.

Keywords: Resilience, Self-efficacy, Burnout, Physicians.

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1. Introduction:

The practice of medicine is undoubtedly very meaningful, personally fulfilling, and rewarding. Altogether, it can likewise be demanding as well as stressful. Physicians have to face an enormously elevated level of stress during their job and are predominantly vulnerable in experiencing burnout. The increased level of stress in physicians' everyday job places them at an excessive threat of undergoing substance abuse, impairment in functioning, depression and even suicide.

Numerous interventions have been established to enhance issues related to mental health amongst general practitioners, that can be mostly clustered into physician-directed and organizational-directed (West, Dyrbye, & Shanafelt, 2018). Resiliency training is a progressively studied physician-directed intervention (Fox et al., 2018).

Resilience has been derived from the Latin word “resilio”—to bounce back or rebound, is the capability to adjust well in the facade of hard times or significant stress, even returning stronger subsequently (Wingo, Fani & Bradley, 2010). Resilience has been defined by American Psychological Association as ‘the practice of adjusting well in the facade of adversity, catastrophe, intimidations, trauma, or substantial causes of stress – for example, family and relationship issues, serious health problems or place of work and monetary stressors (American Psychological Association, 2013). Resilience is perceived as progressive adjustment (Fergus, & Zimmerman, 2005) and hence, it ought to progress towards positive adaptation; that is, to the preservation of an adequate level of health in damaging conditions (Windle, 2011).

Self-efficacy arises as an intellectual and inspirational aspect liable for leading individual's behavior. It

is deliberated as the personal judgment or evaluation of each individual's abilities and skills when executing a definite action (Bandura, 1982). Harmonized with this, the progressive or undesirable assessments that every individual has of herself or himself, might be established on prior understandings and on their awareness and conviction about their capability in facing the task and will differ intra-psychically in a timely manner (Fernández & Fernández, 2021).

In the field of education, the most contemporary investigations in line with this are mostly grounded on Albert Bandura's social cognitive model, which supports the notion that human functioning incorporates the interaction of behavior with the environment, along with other personal aspects (cognitive, biological and affective), that has influence on the beliefs about what each individual can do (Bandura, 1986). Likewise, this theory maintains that self-efficacy is shaped from: (1) mastery experiences or prior direct experiences that persons possess for the task to execute; (2) the vicarious experiences that assume that they are capable to develop a definite act while observing that others are also skilled in doing this; (3) the oral influence that is working as a positive reinforcement; and (4) the emotional and psychological condition the person is presenting (Bandura, 1986).

Burnout is a surreptitious amelioration of psychological deterioration resulting from prolonged exposure stress faced in the job. It is having three facets; one of them is emotional tiredness, lack of emotional resources, feelings of tiredness and loss of vigor. Employees described such type of feelings as fatigue that is supplemented with mental state of tension and frustration. Feelings of fear among other symptoms are while returning back to their job in the next day. Depersonalization is the second aspect, that includes the advancement of hopeless feelings and attitudes towards individuals for whom the work is being done, to the point where they are alleged to be responsible for the individual's own difficulties. The third facet is reduced personal achievement (minor feelings of proficiency). Self-efficacy can be defined as an individual's belief that he/she can execute his/her obligatory role as per requirement in circumstances that is, belief or expectation related to one's own ability to accomplish a definite task efficiently.

The practitioners of healthcare are presumed to be at a greater threat to agonize from syndrome of burnout, since of their involvement in excessive collaboration with the patients and in emotionally demanding conditions which can present pains, terminal diseases, disabilities, suicidal thoughts, violent behavior, irritability and lack of amenability to treatment or litigation. The idea of Burnout have largely been used with the individuals working in health care setup, subsequently Burnout would be witnessed amongst the physicians, using certain procedures of Self efficacy agreeing with the foremost duties they are performing. The strategy of the present investigation was to discover the relationship of Self-efficacies with Burnout amongst the physicians.

Burnout is a syndrome having characteristics of depersonalization, low personal accomplishment and emotional exhaustion (Schwarzer & Hallum, 2008). In health care sector, burnout related to job not only advances to reduced efficiency but it might also hinder human perception, have an effect on people pertinent judgement, diminishing the capacity to envisage accidents, subsequently routing towards illegal operations and certainly leading to possibility of medical accidents, worsening the worth of care delivered to the patients (Humphries & Le Blanc, 2016). In a survey conducted on medical staffs revealed that 35.8 percent of the participants described themselves at a greater risk of burnout related to job, 27.2 percent had experiencing more amount of exhaustion, 10 percent had experienced a cynicism, 3.2 percent required professional efficacy (Fuchs, Endler, & Mesenholl, 2009). One investigation reveals more than half of nurses employed in Veterans Health Administration (VHA) undergo emotional exhaustion and reduced accomplishment as well as high depersonalization level (Schult, Mohr, & Osatuke, 2018). Margues and colleagues described that there were 59.1 percent and 41.2 percent nurses with increased level of emotional exhaustion and reduced personal accomplishment, correspondingly, in Portugal university hospital (Marques et al., 2018).

Even if the resilience definition has differed in the literature dependent on if it was reflected as personality trait, a process or a outcome, there is certain settlement that resilience needs a persistent effort in going ahead in an optimistic way and to manage the psychosocial risk aspects that are demonstrated to individuals (Southwick et al., 2014).

The physicians have to perform the tasks that are tough and challenging. Physicians might experience exhaustion in their profession and the extensive working with individuals may leads to a situation described as weariness, emotional tiredness, and low achievement of personal goals, agony and decreased accomplishment. The foremost essential elements for this set of signs are presumed to be the physician's

encounter with problems of patient which may have outcomes such as pessimistic thoughts similar to anger, mortification, fear or desperation.

Until present, the rich widely held investigations that links self-efficacy, burnout and resilience are correlational or connecting investigations among two of the three constructs. Apparently, it is essential to apprehend the connection of the mentioned three variables in allowing us in proceeding in the knowledge of the well-being of physicians'. Likewise and associated with the earlier notion, nearly all work done on self-efficacy, burnout and resilience are engrossed on the school context, leaving sideways the role played by these constructs amongst physicians. Hence, this domain needs a higher demand. Due to these reasons, the key objective of this investigation is to enlighten whether resilience have a moderating impact on the relation of self-efficacy with burnout in physicians.

2. Method

Research Design

The current investigation is a correlational study based on cross sectional research design.

Hypotheses

To achieve the goals of the current investigation, following hypotheses were formulated:

1. Self-efficacy and resilience are negatively correlated with burnout.
2. Female physicians experience high level of burnout than male physicians.
3. Resilience buffers the association of self-efficacy with burnout.

Sample and procedure

The sample was comprised of 240 physicians (n=120 males and n=120 females) taken from different hospitals of Wah Cantt, Rawalpindi and Taxila. Age of the physicians were ranging from 28 years to 45 years. The participants were approached separately, informed consent was taken and participants were guaranteed about confidentiality of the given information. Instructions were given to the respondents prior to the administration of the questionnaires. Participants were thanked with gratitude.

Instruments

Self-efficacy. General self-efficacy scale comprised of 10 items, developed by Schawrzner (1992) was utilized in the present study. Values of each item ranged from 1=not at all true, 2=hardly true, 3=moderately true and 4=exactly true. Cronbach's Alpha coefficient of scale was $\alpha = .80$. High score indicates high level of general self-efficacy.

Maslach Burnout Inventory MBI (Maslach, 1986). Maslach Burnout Inventory comprised of 22 items developed by Maslach (1986) was utilized in the present study. Inventory comprised of three subscales including Emotional exhaustion, Depersonalization and Personal accomplishment and values of each item ranged from 0 =never, 1 =a few times a year, 2 =once a month, 3 =a few times per month, 4 =once a week, 5 =a few times per week, 6= every day. For each subscale, the score ranged and was defining high, moderate and low levels of each subscale. Cronbach alpha for the current investigation is .90 for emotional exhaustion, .76 for personal accomplishment and 0.76 for depersonalization.

Resilience. Resilience was measured by the Resilience subscale of the Positive psychological capital (Luthans et al., 2006) consisting of 4 items. Response classes were ranging from 1 to 5 with providing the score of 5 to "strongly agree", 4 to "agree", 3 to "neutral", 2 to "disagree", and 1 to "strongly disagree". For the current study, the reliability of this scale was .83.

Operational definition

Self-efficacy. Schwarzer (1992) defined self-efficacy as One’s ability to deal proficiently with demanding encounter.

Burnout. Burnout was defined by Maslach (1986) as a three dimensional syndrome of depersonalization of others (impersonal reaction towards the recipient of one’s care), emotional tiredness (sensitivity of being sentimentally over extended as well as tired by the work) and awareness of decreased personal attainment (decreased feelings of proficiency and effective success at job).

Resilience. Resilience according to Luthans (2002) is positive psychological capacity to bounce back from hard times, vagueness, failure, conflict or even positive variation, enhancement and increased obligation.

3. Results

Table 1: Descriptive Statistics, Cronbach’s Alpha and Correlation Coefficient for the scales of Self-efficacy, Burnout and Resilience (N=240)

Variables	k	α	M	S.D	Skewness	Kurtosis	Range		1	2	3
							Min	Max			
1. Self-efficacy	10	.75	33.6	3.56	-.36	-.89	25	39	---	-.40**	-.59**
2. Resilience	4	.61	15.3 9	2.98	-.12	-.91	8	20	---	---	-.71**
3. Burnout	22	.82	69.8 8	15.54	.23	-1.	48	102	---	---	---

**p<.01

Table 1 illustrates the descriptive. Good reliability values are the sign of internal consistency of the scales. The values of skewness and kurtosis are between -1.5 to +1.5 which suggests normality of data. Table also shows that there is a highly significant negative association among self-efficacy and burnout. Physicians having high self-efficacy demonstrate low level of burnout. Table further depicted a significant negative correlation between resilience and burnout which shows that physicians having high level of resilience experience low level of burnout.

Table 2: Moderating impact of resilience on the relation between self-efficacy and burnout among physicians (N=240)

Self-efficacy	Burnout		
	95% CI		
	B	LL	UL
Resilience	5.31**	1.49	9.13
SE	2.20**	.41	3.98
(SE) × (Resilience)	-.25**	-.36	-.13
R ²		.65	
ΔR ²		.03	
F		142.36	
ΔF		18.22	

Table 2 reveals that resilience moderated the association of self-efficacy with burnout among physicians (B=-.25, p<.001, ΔR²=.03). It has been revealed that resilience added 3% additional variance in association of self-efficacy with burnout. The moderating effect of resilience has been showed through the Mod graph in figure 1.

Figure 1: Resilience buffering the negative association of self-efficacy and burnout (N=240)

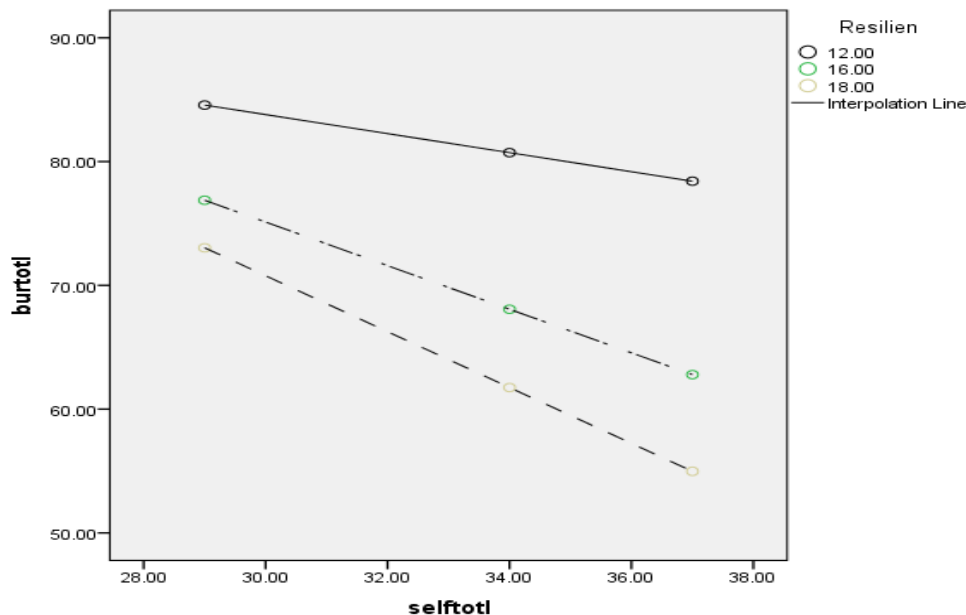


Figure 1 revealed that high level of resilience decreases the level of burnout among self-officious physicians.

Table 3: Mean, and t-value showing gender differences on study variables among physicians (N=240).

Variables	Male (n=120)		Female (n=120)		t	p	95% CI		
	M	SD	M	SD			LL	UL	Cohen's d
Self-efficacy	33.83	3.01	33.38	4.04	.97	.329	-.45	1.35	.12
Resilience	16.40	2.80	14.30	2.70	5.57	.000	-.803	2.74	.76
Burnout	64.83	14.61	74.93	14.63	-5.39	.000	-13.81	-6.38	.70

Note. M=mean, SD=standard deviation, LL=lower limit, UL= upper limit.

Table 3 indicates significant gender differences among male and female physicians on burnout. Findings indicate that female physicians (M = 74.93, $p < .001$) scored higher on burnout as compared to male physicians (M = 64.83, $p < .001$). On the variables of Self-efficacy and resilience, no noteworthy differences related to gender were found.

4. Discussion

The current study envisioned to examine the association of self-efficacy with burnout among physicians. Moreover the further goal of current investigation was to examine the moderating impact of resilience on the association of self-efficacy with burnout.

The current research hypothesized that self-efficacy and burnout are negatively correlated. Findings of the current study revealed a significant negative correlation among self-efficacy and burnout. Results of the current study are in line with previous researches as Rohmani and Andriani (2021) demonstrated a significant inverse correlation between academic self-efficacy and burnout among nurses during Coronavirus disease pandemic. Another research revealed a significant negative correlation of self-efficacy with burnout among teachers of public school (Shakeel et al., 2021).

Study further hypothesized that resilience is negatively correlated with burnout. Current study found a significant negative correlation of self-efficacy with burnout. Results of the current research are in line with

the previous researches as Fernandez-Castillo and Fernandez-Prados (2021) found a negative association between resilience and burnout among students. Another study indicated that academic resilience and school burnout are negatively correlated (Romano, Consiglio, Angelini, & Fiorilli, 2021).

It was further hypothesized that resilience moderates the association of self-efficacy with burnout. Findings of the current study supported the hypothesis. Results of current research are aligned with previous studies as a study revealed that resilience moderated the effect of emotional exhaustion on psychological health of students (García-Izquierdo et al., 2018). Results of another study conducted by Cheng, Zhao, Wang and Sun (2020) indicated that resilience moderated the relationship between academic burnout and depression among Chinese medical students.

It was further hypothesized that there is high level of burnout among female physicians as compared to male. Results of the study indicated that female physicians reported significantly high level of burnout as compared to male physicians. Results of the present investigation are in line with the previous studies as a study indicated that female university professors presented significantly higher scores than males on emotional exhaustion (Redondo-Florez et al., 2020). Results of a meta-analysis conducted on burnout and gender differences by Purvanova and Muros (2010) revealed that women experience slightly more burnout as compared to men. On the basis of research outcomes it can be suggested to the administration of hospitals to take into consideration the mental health of their physicians and form meetings, seminars, workshops, professional development courses and other activities to enhance resilience in their physicians in order to cope and even prevent burnout.

5. Limitations and Suggestions

1. Present research employed correlational research design which makes it difficult to establish cause and effect relationship. Repeated monitoring of the same population overtime would have consolidated the results.
2. Sample size of the study was small and data was collected from few nearby cities due to which there is issue of generalizability of results. Future researchers are suggested to expand the sample size from large number of cities to obtain diversity.
3. Current study used limited demographic variables so future researchers are suggested to broaden their research with more dynamic demographics.

6. Implications

1. The present study is valuable in understanding the moderating role of resilience on the relationship between self-efficacy and burnout. Findings provide the knowledge of resilience as a protective factor for effective coping with burnout.
2. Study can be beneficial for policy makers, administration and higher authorities of hospitals to exercise and enhance resilience for intervention of burnout among their physicians.
3. Different seminars, workshops and awareness campaign can be arranged in order to raise awareness that how physicians can reduce the severity of burnout by enhancing resilience in their personality.

7. Conclusion

Findings of the present study indicated that enhancing resilience among physician would lead to a decrease in burnout therefore it is essential to adopt strategies to improve resilience among physicians.

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