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PSYCHOLOGICAL CAPITAL AS A MEDIATOR BETWEEN TRANSFORMATIONAL LEADERSHIP AND JOB STRESS: EMPIRICAL EVIDENCE FROM HEALTH SECTOR IN PAKISTAN

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Abstract
This study aims to examine the relationship between perceived transformational leadership and job stress through psychological capital. Data were collected from 302 non-managerial employees at different hospitals in Pakistan through stratified random sampling in two stages. Hierarchical linear regression analysis and the bootstrapping method were utilized to quantify the mediation effect of psychological capital. The results demonstrate that perceived transformational leadership and job stress are negatively associated, perceived transformational leadership and psychological capital are positively associated, and psychological capital and job stress are negatively associated. Furthermore, findings also support the role of psychological capital as a partial mediator. Thus, the application of transformational leadership in organizations can automatically build up employees' psychological capital, which, in turn, will mitigate job stress among employees. The implications and limitations of this study are discussed.

INTRODUCTION

An increasingly competitive environment has put organizations into war for survival around the globe. A dynamic environment, global economic crises, and technological changes are pushing organizations to maximize optimal productivity. Organizations need to exert more effort on human resource practices and employee engagement. Unpredictable markets are increasing the pressure on the workforce and hence increasing employee turnover [1]. Cost reduction strategies lead to heavy downsizing, job insecurity, and decreased economic benefits. These factors are making work life much more complicated and stressful for employees around the globe [2]. Moreover, work life is becoming more complex and challenging with each passing day. Employees are continuously under pressure to work hard, improvise and meet tight deadlines [3]. On the other hand, a survey conducted by the American Psychological Association [4] showed that 78% of American adults are suffering from stress. This study also found that 69% of total stress suffered by these adults is associated with work. Another survey by the European Agency for Safety and Health at Work [5] showed that work-related stress costs Europe approximately €617 billion per year. These costs were mainly due to mental and physical illness expenditures, absenteeism, turnover and lower productivity. In 1993, a United Nations report tagged job stress as "The 20th Century Disease", and after few years, the World Health Organization (WHO) labelled work stress as a "worldwide epidemic" [6]. Stress at work is something that cannot be rooted out completely. People must learn to confront, handle and cope with it so they can float on the surface without drowning. However, employees who are stuck in complicated situations and are depressed are unlikely to learn stress management on their own. They need their organizations' attention and support to survive and succeed.

A transformational leadership style successfully reduces job stress among employees [7,8]. However, this does not fully explain the relationship between transformational leadership and job stress. Employees have to deal with multiple stakeholders both inside and outside the organization, including managers, customers, suppliers, and colleagues. They also face multiple jobs and non-job related challenges, and managers are only one of the many parties whose expectations and demands need to be fulfilled [9]. Moreover, the origin of job stress may be from something other than organizational factors, such as home-family relationships [10]. Therefore, transformational leadership style can directly resolve some stressors, but many of them are still beyond the manager's direct control. However, transformational leadership does not only eliminate the majority of job stress but also creates job satisfaction, commitment, better performance [11] and happiness among employees [12]. Positive psychological capital (PsyCap) is another variable in the literature that can help employees to better cope with job demands and stress management [13,14]. Hence, we believe that PsyCap is missing from the previous research and may better explain the relationship between transformational leadership and job stress. Job stress has been treated and mitigated in different ways but not by building psychological capital. Those attempts involved higher costs and still required organizations to allocate a whole new set of resources to build PsyCap. Considering the above discussion, the prior literature has a missing link regarding the effect of transformational leadership on job stress through PsyCap.

Therefore, in this study, we propose that a transformational leadership style automatically boosts employees' positive psychological capital, which acts as a natural shield against job stress. It creates positive energy within employees that helps them fight against routine hassles and combats stress. To our best knowledge, this is the first effort to measure the effect of transformational leadership on job stress through PsyCap. This study intends to bridge this gap in the literature. It also provides a new, cost-effective way to mitigate job stress and build PsyCap using transformational leadership.

2. Literature review and hypothesis development

2.1. Job stress

The concept of stress as discussed by Hans Selye is well known. He initially called stress nocuous agents [15]. Later, he found that stress is not always noxious; sometimes it may yield positive results. He coined two terms, "eustress" as good stress and "distress" as bad stress [16]. However, when the term "stress" is used alone, it usually refers to "distress". According to Lazarus [17], stress occurs when an individual perceives that the demands of an external situation are beyond his or her perceived ability to cope with them. Lazarus and Folkman [18] explained stress as the individual-environment relationship that occurs if demands surpass the personal and social resources at a person's disposal. How a person responds to the stressor and what kind of coping behaviours are demonstrated basically depends on an individual's interpretation or appraisal of the stressor and the resources available to deal with it [18,19). Thus, job stress is defined as a precise relationship between employees and their work environment. Stress factors associated with a job are divided into five major categories: intrinsic to the job, role in the organization, career development, relationships at the workplace, organizational climate. Moreover, downsizing, financial problems, long job hours, an intense workload, travel, job insecurity, and greater responsibility also cause job stress [20]. Job stress causes psychological as well as economic loss and places a significant cost on both employees and organizations in terms of low productivity, increased absenteeism, poor health, health expenses [21], lower job satisfaction and increased turnover [10, 22]. It is one of the major causes of heart attacks, high blood pressures, anxiety and sleeping disorders [23]. It is not only in the best interest of the organizations but also their ethical responsibility to prevent and manage stress among employees by providing a better environment [24].

2.2. Transformational leadership

Bass [25] classified transformational leadership characteristics into four categories: idealized influence, individualized consideration, inspirational motivation and intellectual stimulation. Podsakoff et al. [26, 27] further elaborated the behavioural dimensions of transformational leadership and presented six behavioural dimensions of transformational leaders: (1) Identifying and

articulating a vision demonstrates a leader's behaviour drive to constantly explore novel opportunities for the mutual benefit of organization and employees and to develop new inspiring visions and transfer these visions to other (2) Fostering the acceptance of group goals is the leader's efforts to create strong cooperation among employees and make them work as a team to achieve organizational goals (3) Providing an appropriate model indicates a leader's values, behaviours and actions that make him a role model for followers (4) High performance expectations encompasses the leader's behaviours that communicate higher expectations for excellent performance from his followers (5) Providing individualized support through considering individual needs and feelings, showing concern, respect and acknowledgement towards employees (6) Intellectual stimulation is the leader's thought-provoking behaviour that forces employees to re-examine their performance and discover novel and more effective ways to achieve excellence in their jobs.

2.3. Psychological Capital

The term "psychological capital" was introduced by Luthans and Youssef [28] and is defined as "the positive psychological state of an individual that consists of four elements: Hope, optimism, self-efficacy and resilience." Hope is defined as "positive motivational state that is based on an interactively derived sense of successful, consists of agency (willpower) and pathways (ability to devise successful plans)" [29]. Self-efficacy is the belief of a person in his own abilities to mobilize cognitive resources, motivation and the actions required to complete a task successfully [30]. Resilience is defined as "the developable capacity to rebound or bounce back from adversity, conflict, and failure or even positive events, progress, and increased responsibility" [31]. Optimism is the behaviour which associates positive events to themselves, permanent and negative things to external factors and temporary [32] but PsyCap optimism is not blind optimism. It is flexible and based on realistic evaluations [33].

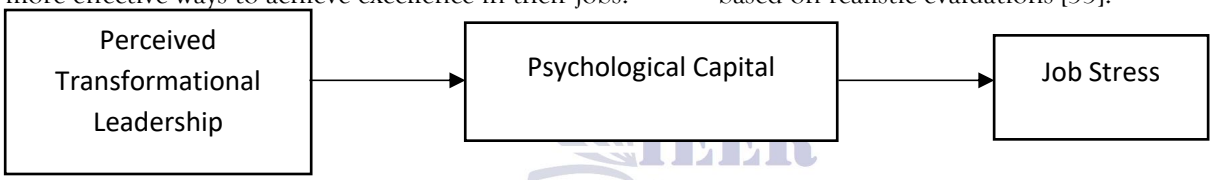

Figure 1. Research conceptual framework.

2.4. Transformational leadership and job stress

Transformational leaders influence their followers' job satisfaction, perceptions about leader's effectiveness and overall behaviours by articulating a vision, showing the bigger picture and making clear their role in this big picture that reduces their role ambiguity and suspicions [34]. They allow open communication, show their concern for employees, acknowledge their contributions and consider their individual problems and needs [25,26]. Such leadership helps to reduce employees' frustration [7] and job stress [8]. The thoughts, feelings, and actions of an individual are interdependent. If an individual's thoughts are changed, his feelings and actions will change accordingly [18]. Employees' responses in expressing stress also depend on their mindsets towards stress and how their minds translate the nature of stress. The mindset of an individual can be altered by providing a positive view of stress [35]. Transformational leaders can change employees' stress mindsets by presenting a positive view towards stress, as these leaders have charismatic personalities and the ability to influence others [25]. Employees might then be able to see threats as challenges and weakness as "room for improvement". This point of view towards the environment may change the person-environment relationship and improve an employee's ability to cope with stressors.

Hypothesis 1: There is a negative relationship between perceived transformational leadership and job stress.

2.5. Transformational Leadership and Psychological Capital

Previous studies found that perceived transformational leadership can predict the level of psychological capital in followers [36]. Leaders who are perceived as transformational transmit positive energy to their employees which enables them to visualize a positive future and motivates them to achieve that shining future. Transformational leaders nurture self-efficacy in their employees (37; 38) by

providing mastery experience or performance achievements, verbal persuasion, vicarious learning or modelling and managing psychological arousal and well-being [39,40,41). Healthy feedback, leaders' support and motivation to conquer challenges all build confidence in employees and help them accomplish individual as well as organizational goals [42]. Helland and Winston's [43] research shows that leaders can create and enhance positive thinking-patterns in employees through their own personal positive thinking. Transformational leadership can build and boost the degree of "hope" in employees by enhancing their positive perceptions about autonomy, supervisor or peer support and well-defined "goal-orientation" [44,45].

Transformational leadership encourages employees in problem-solving, motivates them to think of creative and novel solutions in difficult situations, builds self-confidence, allows open upward and downward communication and considers individual needs and feelings [46,47,25]. This consequently makes employees feel confident and capable of dealing with challenges without being afraid of negative consequences. Transformational leadership can build and influence employees' resilience through leaders' behaviours towards the workforce [48]. Individuals need to argue with and dispute negative or pessimistic thoughts, but they also need "externalization of voices" in order to successfully achieve optimism [32]. A transformational leader can be that "external voice" that can help an employee to defeat his pessimistic thoughts and improve his optimism. Transformational leaders are themselves optimists [49]. Emotional contagion theory supports the idea that optimism can transfer from managers to employees [50,51].

Hypothesis 2: There is a positive relationship between perceived transformational leadership and psychological capital.

2.6. Psychological Capital and Job Stress

People get stressed when they feel they have insufficient resources to handle or comply with difficult situations [18], but employees with higher psychological capital can better comply with job demands and work environments, so they can better combat work stress [13; 52]. Employees' self-efficacy helps them to enact the behaviours required to accomplish specific goals and provides them with a sense of control over situations and reduces stress [39]. Employees with higher hopes have an "internal locus of control" as they perceive their efforts will be successful in future [33]. Therefore, they are less afraid of uncertainties, feel more secure and in control of situations compared to people with lower hopes [53]. They are more likely to enjoy a healthy life, avoid crises and deal more effectively with stressors [54]. Resilience enables people to recover quickly from adversities and prevents them from falling apart. It is a vital element in resisting stress and depression [55]. Optimism protects individuals against depression and stress. In the face of undesirable situations, optimists carefully analyse the possible external causes of negative situations rather than blaming themselves in the first place. They view these causes as temporary and limited to a certain situation. Even if such people find themselves guilty, they accept it, forgive their failures, learn from it and consider their mistakes as a step towards self-improvement [33].

Hypothesis 3: There is a negative relationship between psychological capital and job stress.

2.7. Psychological Capital as Mediator

Perceived transformational leadership boosts employees' PsyCap by building their self-confidence in performing challenging tasks, improving their resilience level to bounce back from adversity, encouraging them to have a positive outlook and inducing hope for a successful future. These are the strong positive resources that can neutralize stress effects for employees. Perceived transformational leadership enhances employees' PsyCap which, in turn, acts as a natural shield against job stress and protects employees from its detrimental effects on employees' personality.

Hypothesis 4: PsyCap mediates the relationship between perceived transformational leadership and employees' job stress.

3. Materials and Methods

3.1. Participants and Procedures

The target population used to test the proposed theoretical framework was non-managerial employees

working in the public health sector of Pakistan. Primarily, we included all the metropolitan areas of Pakistan in our study. Additionally, we formed strata of public hospitals on the basis of their sizes. In the next step, we randomly contacted companies from each stratum using emails and phone calls. A total of 25 hospitals were further contacted because they showed a willingness to cooperate and participate in our research work. The questionnaires were distributed among employees at these hospitals. A total of 400 participants volunteered their time to participate in this study. We followed the cross-lagged time design suggested by Podsakoff and colleagues [56] to avoid biased responses. Through this method, the data were collected in two stages, so as to avoid establishing a link between independent and dependent variables in respondents' minds. In the first stage, we distributed only those questionnaires which were related to employees' perceptions of transformational leadership. After six weeks, self-reported questionnaires about PsyCap and job stress were distributed. We received 302 completed questionnaires with an overall response rate of 76%.

3.2. Measures

3.2.1. Perceived Transformational Leadership Scale:

The instrument used in this study was developed by Podsakoff [27] and was based on 22 items on a 5 Likert scale (from strongly disagree=1 and strongly agree=5). The instrument was used and verified by many other studies [57,58]. The scale included 3 to 5 questions for each dimension of transformational leadership, e.g., "inspires others with his/her plans for the future" (Articulating a Vision), "provides a good model to follow" (Providing an Appropriate Model), "fosters collaboration among work groups" (Fostering the Acceptance of Group Goals), "shows us that he/she expects a lot from us" (High Performance Expectations), "shows respect for my personal feelings" (Individualized Support), "has stimulated me to think about old problems in new ways" (Intellectual Stimulation).

3.2.2. Psychological Capital Scale:

Employees self-reported PsyCap was measured by PCQ [33], which contained 24 items on a 5 Likert scale, ranging from strongly disagree=1 to strongly agree=5. It included 6 items for each dimension of PsyCap, e.g., "I am confident in helping to set targets/goals in my work area" (self-efficacy), "I can think of many ways to reach my current work goals" (Hope), "I can get through difficult times at work because I've experienced difficulty before" (Resilience), "I always look on the bright side of things regarding my job" (optimism).

Job Stress Scale: Job stress was measured by the instrument used by Jamal and Baba [59]. It contained 9 items on a 5 Likert scale (strongly disagree=1 to strongly agree=5). The questionnaire was adopted because of its popularity and reliability and because it was used in a great deal of previous research [60,61,62, 63). The instrument included questions, such as "my job gets to me more than it should", "I have too much work to do and too little time to do it in" and "I feel like I never have a day off".

3.3. Data Analysis

The data were analysed using SPSS 20 (Statistical Package for Social Sciences). Table 1 presents the demographic information of the respondents. Approximately 72% of respondents were younger than 30 years, and 79% were male. Most of the participants were bachelor's or master's degree holders, and 7.2% were below undergraduate. 86.8% of respondents had graduated from university. Approximately 56% of employees had fewer than 3 years' tenure, whereas approximately 44% had more than 3 years' tenure. Nearly 79% of the respondents were regular employees, and 21% worked on a contract basis.

The Cronbach's alpha magnitude was computed to check the reliability and validity of the questionnaire; it was above the satisfactory line (i.e., 0.77 for PsyCap, 0.73 for transformational leadership, and 0.81 for job stress). Descriptive statistics and bivariate correlation were applied to estimate the variability and linear associations among variables. After we gathered the evidence of linear associations between the variables, we performed a simple linear regression (SLR) and hierarchal linear regression (HLR) in order to test the hypothesis. Apart from the traditional mediation approach of Baron and Kenny [65], we executed the bootstrapping method [64] to measure the mediation effect and further validation

of H4. This test was performed by using Process macro 2.16. Process macro is an effective path analysis modelling tool for SPSS and provides more accurate results. The bootstrap was based on 1000 bootstrap samples of the study, and the indirect effect was examined in each resampled data-set. We computed the direct, indirect and total effect of the variables. This test allowed us to predict size of the mediators' effects more precisely.

Table 1. Respondents' Demographics.

	Frequency	Percent
Gender		
Female	64	21.2
Male	238	78.8
Age (years)		
Younger than 30	218	72.2
30 to 40	78	25.8
40 to 50	5	1.7
50 or older	1	0.3
Appointment Type		
Contract	63	20.9
Regular	239	79.1
Tenure (years)		
Fewer than 3	170	56.3
3 to 5	71	23.5
5 to 10	33	10.9
10 to 15	19	6.3
15 to 20	7	2.3
20 or more	2	0.7
Education Level		
Matric	8	2.6
Intermediate	11	3.6
Bachelor	131	43.4
Masters	131	43.4
Above Masters	18	6
Diploma	3	1

Table 2. Descriptive and Reliability Statistics.

Variables	Items	α	Mean	Standard Deviation	Correlation	
					PsyCap	TL
Psychological capital	9	0.77	3.55	0.846		
Transformational Leadership	24	0.73	3.53	1.101	0.695**	
Job stress	22	0.81	2.82	0.785	-0.422**	-0.501**

Note: N=302; α = Cronbach's alpha; PsyCap = Psychological capital; TL = Transformational Leadership; **,* indicate 1% and 5% level of significance, respectively.

Table 3. Regression Analysis for Hypothesis 1.

Variables	Coefficient	Standard Error	T-value	Adjusted R2	Model Fit
Transformational Leadership	-0.702*	0.070	-10.020	0.248	100.398*

Note: N=302; Dependent variable=Job Stress; **,* indicate 1% and 5% level of significance, respectively.

Table 4. Regression Analysis for Hypothesis 2.

Variables	Coefficient	Standard Error	T-value	Adjusted R2	Model Fit
Transformational Leadership	0.650*	0.039	16.726	0.481	279.753*

Note: N=302; Dependent variable= Psychological Capital; **,* indicate 1% and 5% level of significance, respectively.

Table 5. Regression Analysis for Hypothesis 3.

Variables	Coefficient	Standard Error	T-value	Adjusted R2	Model Fit
Psychological Capital	-0.633*	0.078	-8.064	0.175	65.033

Note: N=302; Dependent variable=Job Stress; **,* indicate 1% and 5% level of significance, respectively.

Table 6. Hierarchical Linear Regression.

Variables	Model 1	Model 2
Predictor		
Transformational Leadership	-0.702 *(.07)	-0.562*(.097)
Mediator		
Psychological Capital		-0.215*(.104)
Adjusted R2	0.248	0.256
Overall Model F	100.398*	52.910*

Note: N=302; Dependent variable=Job Stress; **,* indicate 1% and 5% level of significance, respectively.

Table 7. PsyCap Mediating Role Using Bootstrap Path Analysis.

	Effect Size	Boot SE	Boot LLCI	Boot ULCI
Indirect effect	-0.1398*	0.0679	-0.2729	-0.0066

Note: N=302; **,* indicate 1% and 5% level of significance, respectively.

4. Results and discussion

Table 2 reports the Cronbach's alpha, mean, standard deviations and the bivariate correlation among all of the variables. All of the instruments (questionnaire) used in this study are reliable, as they show higher values of Cronbach's alpha. The Cronbach's alpha for the psychological capital instrument is 0.77, for perceived transformational leadership it is 0.73, and for job stress it is 0.81. In addition to the mean and standard deviations, there is a positive linear association between transformational leadership and PsyCap, as r =0.695 for PsyCap. However, transformational leadership is negatively associated with job stress as r= - 0.501; r = - 0.422 for job stress, which shows a negative linear association between PsyCap and job stress. All correlations among the variables are significant at 1%. Correlations' signs and values are significant and in accordance with our hypothesis. These results provide the basic grounds for mediation analysis, and they encourage further investigation.

In Table 3, the regression results are reported for H1 (total effect) where β=-.70, SE=.07 and $p < .05$. Hence, there is a significant negative relationship between perceived transformational leadership and job stress. These findings are similar to what Salem and Kattara [8] concluded. Thus, our results also validate previous studies conducted about transformational leadership and job stress.

Table 4 shows the regression results of perceived transformational leadership on PsyCap (β = .65, SE= .039, $p < .05$). These results prove the second hypothesis; there is a positive significant relationship between perceived transformational leadership and PsyCap. These results are consistent with the

research conducted in the United States [36], and they indirectly support the other studies [45,48,38).

The results in Table 5 evidence the significance of H3; there is a negative relationship between psychological capital and job stress. The study supports the previous findings of Avey and colleagues [13] as well as Abbas and Raja [52]. Apart from supporting prior research, the unique and key finding of this study is the identification of PsyCap as a partial mediator between perceived transformational leadership and employees' job stress. The direct effect of transformational leadership on job stress is reported in Table 6 and is significant (β = -0.562, SE = .097, $p < .05$). The effect of PsyCap on job stress is also negative and significant (β = -.215, Se= 0.104) when transformational leadership is controlled.

According to Baron and Kenny's [65] mediation approach, SLR and HLR results support H4. However, for further validation of mediation, bootstrapping was applied. Bootstrapping results show the indirect effect (effect size= -.14, Boot SE= .07) of transformational leadership on job stress is significant at a 95% confidence interval (Table 7). Bootstrap confidence intervals (BLLCI= -.27, BULCI= -.066) exclude zero, which also favours the significance of the indirect effect and confirms the PsyCap role as a mediator between the association of transformational leadership and job stress. The total effect of transformational leadership on job stress is 70.2%, and the indirect effect accounts for 19.9% of this figure. The direct effect is significant and greater than zero, which implies the presence of partial mediation rather than full mediation. Broader-and-build theory [66,67] implies that these psychological resources can enhance the behavioural repertoire and help to develop skills and resources. Eventually, PsyCap demonstrates an "undue effect" on negative emotions or stress. Perceived transformational leadership mitigates the job stress of its employees partially through employees' PsyCap. This study provides evidence for a new mediator that better explains the relationship between transformational leadership and job stress.

5. Conclusions

The findings of this study suggest that transformation leadership increases employees' PsyCap, which, in turn, acts as a natural shield and firewall against job stress. This is the sort of internal strength that protects employees against job stress. This conclusion provides practical implications for organizations in health sector seeking to decrease stress by introducing transformational leadership in order to increase PsyCap. It provides evidence that organizations do not need to follow two distinct paths to utilize resources for both "employee-stress management" and "employee-PsyCap building". By using transformational leadership, organizations can yield twin benefits; they can build employees' PsyCap and manage job stress, even without putting extra effort or resources towards intervention programmes, workshops or training. The transformational leadership style is people-oriented, and such managers frequently interact with their subordinates. They are well aware of their subordinates' needs, problems, psychological states, strengths, and weaknesses, so they can deal with and train them better than anyone else. Furthermore, leaders are ordinary role models for their employees, and their behaviour impacts employees' work input and job stress. Therefore, maintaining strong relationships with employees, identifying their work strengths and developing their PsyCap is essential for leaders. This fact demonstrates the significance of transformational leadership in developing an employee's PsyCap in organizations.

6. Limitations and future research

This study followed multiple methods to produce valid results, but it still has some limitations. First, this study only focused on health sector employees in Pakistan. It is still an open question if the findings of this study can be generalized to other industries. Therefore, future research may find interesting results with further explorations of different industries or other cultural contexts. Second, the participants in this study completed a self-assessment by themselves regarding their job stress. Therefore, there is a possibility of over-reporting their personal experience due to social desirability bias. Even if this study used two stage data collection in order to decrease research bias, self-assessment can still produce a biased result. Finally, future researchers may want to examine the possible implications of dispositional effect (i.e., positive affectivity and

negative affectivity) on transformational leadership's success or failure in building positive psychological capital and reducing job stress for employees.

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