Thrita

Psychological Capital of Employees of the Tehran University of Medical Sciences During 2010-2011

Hussein Dargahi [1,*]

[1] Health Care Management Department, School of Allied Medicine, Health Information Management Research Center, Tehran University of Medical Sciences, Tehran, IR Iran

[*] *Corresponding author:* Hussein Dargahi, Tehran University of Medical Sciences Central Campus, Shahid Hemmat Highway, Adjacent to Milad Tower, School of Allied Medicine, Tehran, IR Iran. Tel.: +98-2188622755, Fax: +98-2188622533, E-mail: hdargahi@sina.tums.ac.ir

A B S T R A C T

Background: Psychological capital with components of hope, self efficacy, optimism, and resiliency has been recently proposed to bring positive psychology to the workplace.
Objectives: We investigated Psychological Capital states of employees of the Tehran university of medical sciences (TUMS) headquarter offices in Tehran, Iran.
Materials and Methods: A cross-sectional, descriptive and analytical study was conducted among all (1260) employees of the Tehran university of medical sciences headquarter offices in Tehran, Iran during the 2010-2011 time period. They were asked to respond to the PsyCap questionnaire, consisting of four subscales include hope, optimism, self-efficacy and resilience, each comprising of six items. Data were recorded and analyzed by SPSS software, using Chi-square statistical methods.
Results: Descriptive statistics showed that the mean for positive psychological capital score was 4.05 (SD = 0.43), state of hope was 4.2 (SD = 0.64), optimism was 4.03 (SD = 0.85), self-efficacy was 3.9 (SD = 0.67), and resilience was 4.06. It seems that TUMS employees score higher in hope state subscale of positive psychological capital inventory.
Conclusions: The relatively upper scores on the positive psychological states may be explained by the fact that TUMS employees worked and lived under good job that more likely to be associated with higher organizational performance. This is similar to USA sample and incompatible with Chinese workers. This study finding is only a first step towards an empirical examination of PsyCap states of psychological capital in Iran. However, our findings show the potentially important role of PsyCap capacities in health care organizations in Iran.

Keywords: Psychological Capital; Workforce; Positive Psychology

Article type: Research Article; Received: 03 Jul 2012, Revised: 07 Aug 2012, Accepted: 16 Aug 2012; DOI: DOI: 10.5812/thrita.7073

Implication for health policy/practice/research/medical education:
Psychological capital with components of hope, self efficacy, optimism, and resiliency has been presented recently as positive psychology to the workplace. For this study, our purpose has been chosen to investigate positive psychological capital states of headquarters employees at Tehran University of Medical Sciences (TUMS) in Tehran, Iran.

Please cite this paper as:
Dargahi H. Psychological Capital of Employees of the Tehran University of Medical Sciences During 2010-2011. Thrita J Med Sci.2013;1(4): 120-6. DOI: 10.5812/thrita.7073

1. Background

Positive organizational behavior (POB), suggested by Luthans 2002 and defined by Zong and Zhao Li (2007), is a new title in the field of organizational behavior which stresses managing and developing capablities of human beings, and analyses the positive approaches and abilities of employees to enhance their organizational performance (1). Peterson (2006) defined POB as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace" (2).

Positive psychology is the study of situations and processes that contribute to the normal performance of people, groups, and organizations (3). Positive psychology is a constellation of characteristics and experiences of positive organizations and individuals that aimes to expand the focus of clinical psychology beyond suffering and its consequences (4, 5).

Psychological Capital (PsyCap) research has is basically an application of positive psychology, which links the positive organizational behavior and positive psychology (6). PsyCap investigates human psychological capital and is one way to study this new field (7). PsyCap evaluates major feelings of individuals in several psychological dimensions that helps them to perform according to the active organization standards and gain competitive advantages (8). PsyCap evaluates self-efficacy, hope, optimism, and resiliency states which recently have been proposed to contribute to positive psychology in the workplace (9).

Synder et al. (1991) defined hope as a sense of goal attainment and planning to perform the goal (10). Self-efficacy means self-confidence about his or her abilities in motivating other people by cognitive resources to perform a specific task successfully (11). Optimism is defined a state by which people expect good things to happen to them (12, 13). Resilience is a people's ability to rebound from a set back or failure (14, 15). Hope, self-efficacy, optimism, and resiliency are referred to as core factors of psychological capital, and are important factors for work motivation of employees and authentic leadership (16, 17). Self-efficacy, hope, optimism, and resiliency are referred to as positive organizational behavior criteria which generate positive thinking and motivation for organizational behavior (18).

Self-efficacy, hope, optimism, and resilience states of PsyCap are proposed to associate with organizational employees' attitudinal, behavioral, and performance outcomes and also employees' well-being measures over time (19). Avey et al. (2011) confirmed the relationship between PsyCap with employee's well-being (20). However, Avey et al. (2006) expressed that psychological capital decreased the level of employees' absenteeism (21). Moreover, Fredrickson (2001) declared that field of psychological capital led to positive emotions that could cause employees' flourishing (22). Avey et al. (2008) found that employees' psychological capital was related to their emotions that in turn were related to their positive attitudes and behaviors (23). Currently, psychological capital is increasingly receiving attention because of its important role in managing organizational employees for competitive advantage and employees' positive work attitudes (24-26).

Although human resource management in Iran is beginning to receive more attention, some of the new developments in organizational behavior has been largely neglected. At this critical time of the development of Iranian organizations, as they are preparing to increase their national production, better understanding and practical testing of the newly emerging concept of psychological capital would be particularly relevant. Since, Tehran university of medical sciences (TUMS) represents one of the best educational, research and managerial performances in Iran and Middle East in the last decade; we attempted to explore whether such a good performance is stemmed from positive organizational behavior.

2. Objectives

The purpose of this study was to investigate positive psychological capital states (self-efficacy, hope, optimism, and resiliency) of the headquarter employees of TUMS, Tehran, Iran.

3. Materials and Methods

This cross-sectional, descriptive and analytical study was conducted by a census method among 1260 employees as the total headquarters' employees of TUMS, Tehran, Iran during 2010-2011.

3.1. PsyCap Questionnaire

The research tool for data collection was the PsyCap questionnaire that was measured using the PCQ-24 (the validity analysis can be found in Luthans et al. 2007; Luthans & Youssef, 2004 contains the entire PCQ-24; and free permission for research purposes can be obtained from www.mindgarden.com) (23, 24). PsyCap questionnaire is a higher order construct, consisting of four subscales, each subscale comprised of six items, for a total of 24 items. The subscales include self-efficacy, hope, optimism, and resilience.

A major concern with cross-cultural research is accurate translation from the US-compiled psychological instruments to other languages and cultures. To avoid or minimize the cultural interference as much as possible, we followed Brislin (1980) guidelines on the re-translation method. A member of our team who received his Ph.D in English language education translated the English questionnaire into Persian and the Persian version of the questionnaire was then re-translated back to English by an Iranian graduate student majoring in English.

The re-translated PsyCap questionnaire was evaluated by a panel of experts who rated the relevance of each item, clarity, format, and ease of completion of the questionnaire. Rater responses ranged between one (strongly disagree) to five (strongly agree). The mean score for each item and also the total mean of psychological capital was calculated (maximum = 5). A score rating of 75-100% was defined as the highest agreement rate, a score of 50-75% as a medium agreement rate, and below 50% was defined as disagreement. A pilot study was performed which yielded a high internal consistency of the PsyCap questionnaire (Cronbach's alpha = 0.73). A brief instruction for completion and the purposes of PsyCap were also included to ensure that respondents understood the measured concepts. Also, we collected the respondent's demographic details consisting of age, sex, years of work experience, marriage status, salary, and ethnicity. Tehran University of Medical Sciences Ethics Committee on Research approved this study. All employees voluntarily consented to participate and contribute to the self-assessment.

3.2. Study Participant

The questionnaires were delivered to the respondents by five evaluators who explained the aim of this study and philosophy of PsyCap assessment to the participants at the end of administrative time. Overall 1100 respondents filled and returned the questionnaires (response rate of 80%).

3.3. Statistical Analysis

The collected data were analyzed for correlations by Chi-square statistical method using the SPSS software.

4. Results

The participant ages ranged from 20 to more than 50 years old and most of them (52.5%) were 30-40 years old. About thirty of the respondents had 5-10 years work experience. Sixty five percent of the employees were male and the rest were female. 83.8% of them were married. Four percent of the respondents reported associate diploma, whereas 52% of them reported BSc. degree, with 27.5% reporting a MSc. degree and 16.5% reporting Ph.D or M.D. 53% of the employees were Persian, others were Turkish (30%), Kurdish (5%) , Gilaki (4%), Mazandarani (4%) and Arabs (4%).

The results of descriptive statistics (overall means and standard deviations) showed that the mean score for positive psychological capital was 4.05 (SD = 0.43), state of hope was 4.20 (SD = 0.64), optimism was 4.03 (SD = 0.85), self-efficacy was 3.90 (SD = 0.67), and resilience was 4.06 (SD = 0.63), which showed good levels of positive psychological capital for TUMS employees (*Table 1*).

Table 1. Positive Psychological Capital Components Mean Rating for TUMS Headquarters' Employees

Raw	Components of PsyCap	Mean Rating (s.d)	SD
1	Self-efficacy	3.90	0.67
2	Hope	4.20	0.64
3	Optimism	4.03	0.85
4	Resilience	4.06	0.63

Also, TUMS employees scored higher in the the hope state of PsyCap.

It was found that only self-efficacy was significantly related to the respondents' gender (self-efficacy, P = 0.03; hope, P = 0.36; optimism, P = 0.25; and resilience, P = 0.49) (*Table 2*). More importantly, the positive psychological capital summing all four states did not have significant correlation with age, degrees, years of experience and persian ethnicity.

Table 2. Comparison of Different Study Variables According to the Participants' Gender

PsyCap components	Gender	N	Mean (5.0)	SD	T	P-value
Self-efficacy						0.03
	Male	715	4.11	0.76	2.213	
	Female	385	3.78	0.49		
Hope						0.36
	Male	715	4.28	0.59	0.909	
	Female	385	4.14	0.70		
Optimism						0.49
	Male	715	4.12	0.86	-0.68	

	Female	385	3.90	0.83		
Resilience						0.25
	Male	715	4.02	0.70	1.13	
	Female	385	4.12	0.52		

Table 3 presents the analysis of variables according to the merit-based salary measures of the employees. As shown, psychological capital of the employees was positively related to their merit-based salary (P = 0.042).

Table 3. Comparison of Different Study Variables According to the Merit-based Salary

PsyCap components	Salary (million RlS)	No.	Mean (5.0)	SD	T	P-value
Self-efficacy						0.04
	3-5	210	3.77	0.65	2.87	
	5-7	390	3.87	0.68		
	7-10	300	3.94	0.51		
	> 10	200	4.44	0.80		
Hope						0.60
	3-5	210	4.13	0.65	0.61	
	5-7	390	4.24	0.53		
	7-10	300	4.13	0.59		
	> 10	200	4.42	0.96		
Optimism						0.93
	3-5	210	4.15	0.68	1.13	
	5-7	390	4.04	0.91		
	7-10	300	3.95	0.91		
	> 10	200	4.01	0.84		
Resilience						0.22
	3-5	210	4.16	0.53	1.79	
	5-7	390	4.11	0.53		
	7-10	300	3.84	0.62		
	> 10	200	4.25	0.86		

5. Discussion

Up to now, there has been only few studies on psychological capital, with positive consequences on both performance and work attitudes, but all of them has been performed in the USA and China. Our study is the first PsyCap study outside these two countries, which has explored not only the positive organizational effect of states of hope, optimism, resiliency, and self-efficacy, but also incorporated them into the core construct of psychological capital.

Results of our study showed that TUMS headquarters' employees score relatively high in hope. Several studies show that hope has positive impact on academic performance (27, 28). Few studies have attempted to link hope to the workplace performance (29, 30). These studies suggest that those employees who are hopeful are likely to be motivated to be at a higher performance. Avey et al. believed that employees who have high scores in hope have ability to take multiple strategies to accomplish organizational goals and are motivated to be successful in their task (31). Searle and Barbuto (2010) declare that hope is associated with positive behaviors showed by savy leaders (32). Considering this research results, we can argue that high level of hope in TUMS headquarters' employees, would have a positive impact on their performance.

Coutu (2002) and Masten (2001) suggest that highly resilient employees are more effective in experiencing and development under threatening conditions (33, 34). Recently, there have been a few attempts to correlate resiliency to workplace performance and human resource development (33, 35-37). Resilient employees are those who get involved in challenging situations leading to organizational change and also have the ability to become compatible with organizational policies (17). Such rapid transformation is perhaps most characteristic of TUMS employees today, and therefore the resiliency of TUMS employees would be specially related to their PsyCap and

their performance.

Carver and Sheier (2002) note that optimism is one's character trait to understand the organizational change and maintain positive expectations about what will happen and remain motivated throughout the change process (28). Psychological capital suggests that employees who have optimism, are likely to be committed, leading to higher performance (24, 38). In TUMS work context included in our study, such optimism seems to be related to these employees' PsyCap, resulting in their higher performance.

Bandura (1997) demonstrates that employees who are highly efficacious are presented by pursuit and continuous efforts towards accomplishment and have beliefs in their own success (39). We think that TUMS headquarters employees have ability to move towards accomplishment because of their high efficacy.

Combined, these four states of hope, resiliency, efficacy and optimism used in our study; represent the positive psychological capital of a sample of Tehran university of medical sciences employees who present the relatively upper scores of these states of the PsyCap core construct. Luthans et al. (2005) indicate the Chinese workers' positive states of hope, optimism, resiliency, efficacy and psychological capital, significantly correlated with their performance (16). Youssef and Luthans found that the positive psychological capital capacities of hope, optimism, resilience, and efficacy have impact on the desired employees' work related outcomes (17, 19). Also, Luthans et al. (2008) show that employees' psychological capital is positively related to their performance, satisfaction, and commitment, leading to a supportive climate (40-42). Moreover, a study of manufacturing employees found a significant relationship between PsyCap state and their work attitudes, their behaviors, and high job performance leading to organizational progress (23, 25, 40).

Luthans et al. (2005) who examined the relationship of Chinese employees' positive psychological capital states of hope, resilience, self-efficacy, and optimism separately and when four states were combined into a core construct of psychological capital, indicated that the mean for hope was 5.17 (SD = 1.14), optimism was 3.36 (SD = 0.44), resiliency was 2.81 (SD = 0.50), and self-efficacy was 3.50 (SD = 0.33), suggesting reasonable levels of PsyCap states for Chinese employees, with the possible exception of resiliency, where it seemed to be somewhat lower than norms for Us employees (16), and all values were lower than mean values for the TUMS employees, with the exception of hope state.

Although Waldersee & Luthans (1994) believe that the study of impact of PsyCap states on employees' performance is difficult, because several complex mechanisms and processes which are involved (41). Similarly, TUMS headquarters employees' score for hope state was upper than the other PsyCap states, indicating that it can positively impact their performance. On the other hand, Bandura (1986) argues that no single variable can impact employees' performance, and it is the overall PsyCap states which correlates with employees' desired performance (42). Moreover, combination of PsyCap states may be more exactly predict employees' desired performance as opposed to any individual state (43).

In our research, we showed that psychological capital of TUMS employees positively correlates with their merit-based salary ($P = 0.042$). This is similar to results of Luthans et al. (2005) research that found the positive psychological capital of Chinese employees was positively related to their merit-based salary ($P < 0.001$) (16), indicating that PsyCap of Chinese employees have more significant correlation with their merit-based salary in comparison with TUMS employees.

5.1. Limitations and Implications

Limitations of any field study are magnified when concepts and techniques developed in one culture are applied to another culture. Also, one of the main limitations of the present study is that, it was conducted at one specific time point. Second, the employees were interviewed only through a questionnaire. It is possible that this information-collection process has been convenient for the present research, but it might have introduced some bias into the final results of the research.

The practical implications of this study includes manager attention to build and strengthen the psychological capital of their employees. There are specific guidelines and several successful applications in psychology capital literature for enhancing hope, optimism, resiliency, and self-efficacy which have been open to human resource management with organizationally related performance implications.

The results of current study showed that TUMS employees had obtained the desired score of positive psychological capital in each of PsyCap subscales. Our impression is that recent good performance and high development within the other medical universities in Iran, Middle East countries, and international arena in the last decade are stemmed from accomplishment of positive organizational behavior and positive PsyCap of the employees in those organizations.

We believe that a new approach to understand the full psychological capacities of TUMS human resources is now needed. We propose that TUMS employees' positive psychological capital states may help resolve human resource challenges, and the results of this study provide initial support for this notion. Although, this study only examined the attitudes of TUMS employees related to positive psychological capital, but these findings provide preliminary support that positive employees may indeed be a very important component of a positive organizational change.

Findings of current study are only the first step towards an empirical examination of PsyCap states of self-efficacy,

hope, optimism and resiliency and overall psychological capital in Iran's workforce. However, our findings show the potentially important role of these PsyCap capacities. Investing in, developing and leveraging PsyCap may be an overlooked perspective and approach in meeting the challenges of improving workforce performance in Iran.

Further research is now needed to understand other predictors of performance on PsyCap, which might be the most appropriate technique for enhancing employees' performance and encouraging them to meet specific personal and organizational challenges in Iranian organizations.

Acknowledgements

The author would like to thank Ms. Maryam Keikavoosi for her assistance in the data collection and also in the general program, Mrs.Parvin Nazari for typing the manuscript and anonymous reviewers for their helpful suggestions.

Authors' Contribiution

None declared.

Financial Disclosure

There is no financial disclosure.

Funding/Support

This research was supported in part by a research grant from Deputy for Research of Tehran University of Medical Sciences. The authors declare that they have no conflicts of interest.

References

1. Hui Z, Li-ming Z. Positive Organizational Behavior: a New Field of Organizational Behavior. *J Beijing Technol Business Univ (Social Science)*. 2007;**3**:21.
2. Peterson C. A primer in positive psychology. *Oxford University Press, USA*. 2006.
3. Gable SL, Haidt J. What (and why) is positive psychology? *Rev General Psychol*. 2005;**9**(2):103.
4. Seligman ME, Steen TA, Park N, Peterson C. Positive psychology progress: empirical validation of interventions. *Am Psychol*. 2005;**60**(5):410-21.
5. Lee Duckworth A, Steen TA, Seligman ME. Positive psychology in clinical practice. *Annu Rev Clin Psychol*. 2005;**1**:629-51.
6. Jiang S, Miao Y. Psychological Capital—Positive Psychology Research. *J Gannan Normal Univ*. 2010;**1**:28.
7. Baol W, Rong-li G. Research on the human capital investment way. *J Harbin Univ Commerce*. 2009;**4**.
8. Ping X. Psychological Capital: Construct, Measurement and Research Progress. *On Economic Problems*. 2010;**2**:6.
9. Luthans F, Avey JB, Patera JL. Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy Manage Learn Educ*. 2008;**7**(2):209-21.
10. Snyder CR, Forsyth DR. Handbook of social and clinical psychology: The health perspective. *Pergamon Press*. 1991.
11. Bandura A. Self-efficacy: The exercise of control. New York: Freeman; 1997.
12. Reivich K, Gillham J. *Learned optimism: The measurement of explanatory style*. 2003.
13. Scheier MF, Carver CS. Optimism, coping, and health: assessment and implications of generalized outcome expectancies. *Health Psychol*. 1985;**4**(3):219-47.
14. Block J, Kremen AM. IQ and ego-resiliency: conceptual and empirical connections and separateness. *J Pers Soc Psychol*. 1996;**70**(2):349-61.
15. Tugade MM, Fredrickson BL, Barrett LF. Psychological resilience and positive emotional granularity: examining the benefits of positive emotions on coping and health. *J Pers*. 2004;**72**(6):1161-90.
16. Luthans F, Avolio BJ, Walumbwa FO, Li W. The psychological capital of Chinese workers: Exploring the relationship with performance. *Manage Organiz Rev*. 2005;**1**(2):249-71.
17. Youssef CM, Luthans F. Positive Organizational Behavior in the Workplace The Impact of Hope, Optimism, and Resilience. *J Management*. 2007;**33**(5):774-800.
18. Luthans F. The need for and meaning of positive organizational behavior. *J Organization Behavior*. 2002;**23**(6):695-706.
19. Avey JB, Luthans F, Smith RM, Palmer NF. Impact of positive psychological capital on employee well-being over time. *J Occup Health Psychol*. 2010;**15**(1):17-28.
20. Avey JB, Wernsing TS, Mhatre KH. A longitudinal analysis of positive psychological constructs and emotions on stress, anxiety, and well-being. *J Leader Organization Studies*. 2011;**18**(2):216-28.
21. Avey JB, Patera JL, West BJ. The implications of positive psychological capital on employee absenteeism. *J Leader Organization Studies*. 2006;**13**(2):42-60.
22. Fredrickson BL. The role of positive emotions in positive psychology. The broaden-and-build theory of positive emotions. *Am Psychol*. 2001;**56**(3):218-26.
23. Avey JB, Wernsing TS, Luthans F. Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *J Applied Behavior Sci*. 2008;**44**(1):48-70.
24. Luthans F, Youssef CM. Human, Social, and Now Positive Psychological Capital Management: Investing in people for competitive advantage. *Organization Dynamic*. 2004.
25. Larson M, Luthans F. Potential added value of psychological capital in predicting work attitude. *JLOS*. 2006;**13**(2):75-92.
26. Avey JB, Luthans F, Youssef CM. The additive value of positive psychological capital in predicting work attitudes and behaviors. *J Management*. 2010;**36**(2):430-52.
27. Snyder CR. Handbook of hope: Theory, measures, and applications. *Academic press*. 2000.
28. Lopez SJ, Snyder C. Oxford handbook of positive psychology. *Oxford University Press, USA*. 2009.
29. Peterson SJ, Luthans F. The positive impact and development of hopeful leaders. *Leader Organiza Develop J*. 2003;**24**(1):26-31.
30. Luthans F, Jensen SM. Hope: A new positive strength for human resource development. *Human Resource Develop Rev*. 2002;**1**(3):304-22.
31. Snyder CR. Hope theory: Rainbows in the mind. *Psychological Inquiry*. 2002;**13**(4):249-75.
32. Searle TP, Barbuto JE. Servant leadership, hope, and organizational virtuousness: A framework exploring positive micro and macro behaviors and performance impact. *J Leader Organization Studies*. 2011;**18**(1):107-17.
33. Coutu DL. How resilience works. *Harvard Business Rev*. 2002;**80**(5):46-56.
34. Masten AS. Ordinary magic. Resilience processes in development. *Am Psychol*. 2001;**56**(3):227-38.
35. Youssef CM, Luthans F. Resiliency development of organizations, leaders and employees: Multi-level theory building for sustained performance. *Monographs Leader Manage*. 2005;**3**:303-44.
36. Dutton JE. *Positive organizational scholarship*. Emory University. 2005. Available from:http://www.bus.umich.edu/Positive/PDF/Dutton-POS-Encyc-of-Career-Devel.pdf
37. Luthans F, Vogelgesang GR, Lester PB. Developing the psychological capital of resiliency. *Human Resource Develop Rev*. 2006;**5**(1):25-44.
38. Peterson C. The future of optimism. *American psychol*. 2000;**55**(1):44.

39. Bandura A. Self-efficacy: The exercise of control. New York: Freeman; 1997.
40. Lifeng Z. Effects of Psychological Capital on Employees' Job Performance, Organizational Commitment, and Organizational Citizenship Behavior. *Acta Psychologica Sinica*. 2007;**2**:18.
41. Waldersee R, Luthans F. The impact of positive and corrective feedback on customer service performance. *J Organization Behavior*. 1994;**15**(1):83-95.
42. Bandura A. *Social foundations of thought and action. Health Psychol Read*. 2009; p. 94-106
43. Luthans F, Welsh DHB, Rasenkrantz SA. What do Russian managers ready do? an observational study with comparisons to U.S. managers. *J Int Business Studies*. 1993;**4**:741-61.