

The Effect of Authentic Leadership on Employees' Job Performance: The Mediating Effect of Psychological Capital

Zhun Gong¹, Yuanyuan Zhang¹, Jonathan W Schooler², Mingda Tao^{1,*}

¹Department of Psychology, Teachers College, Qingdao University, Qingdao, Shandong, China.

²Department of Psychological and Brain Sciences, University of California, Santa Barbara, Santa Barbara, California, U.S.A.

* Correspondence E-mail: 1980191821@qq.com

Abstract: In recent years, the introduction of authentic leadership has attracted the attention of many management scholars and enterprise staff, but there are few studies in the field of public management. This paper investigated 362 employees of six public hospitals by means of questionnaires. The effect of hospital authentic leaders on job performance was investigated, and the mediating effect on psychological capital of employees was investigated. The results show that authentic leadership is positively correlated with the employees' job performance. Psychological capital plays a part mediating effect on the independent variable leadership in the prediction of job performance of employees.

Keywords: authentic leadership; psychological capital; job performance

1. INTRODUCTION

With the continuous development of China's public health industry, people's requirements for medical services are getting higher and higher. In order to give full play to the medical service function of public hospitals, the integration and coordination of all departments are essential. As the link between the upper leaders and the grassroots employees, the middle-level leaders of the hospital are not only the executors, but also the leaders [1]. From the perspective of management science, it is an effective way for hospitals to deal with the market competition and the development and progress of the industry under the new situation to analyze the influence of the leadership ability of middle-level leaders on their subordinates. In recent years, the real type theory proposed by Luthans and Walumbwa has attracted the attention of many scholars and enterprise personnel.

An important task facing today's society, the leadership is to alleviate the crisis of confidence, reshape the subordinate most basic faith, hope and optimism, make employees believe that leadership can bring meaning for your life and work [2].

Authentic leadership is a new leadership theory proposed by Luthans and Avolio on the basis of summarizing positive psychology and positive organizational behavior [3]. According to Luthans and Avolio, authentic leadership is a process of combining the positive psychological ability of a leader with a highly developed organizational situation. It is a state of self-reference and a reaction behavior of self-desire of leaders, including four dimensions: self-awareness; internalized moral; balanced processing; relational transparency [4] [5]. This study mainly studies the possible effects of authentic leadership on employee organizational citizenship behavior and job performance in hospital Settings.

On the other hand, with the rise of positive psychology and positive organizational behavior, psychological capital is regarded as an important capital to gain sustainable competitive advantage in the future [6]. Luthans such as psychological capital is defined as: psychological capital refers to the individual in the process of development and growth of a positive state of mind, embodied in: (1) with performance and the necessary efforts successful completion of the challenging task of confidence (self-efficacy); (2) make positive attributions for current and future success (optimism); (3) stick to the goal and, if necessary, re-choose the path (hope) to achieve the goal in order to achieve success; (4) when encountering problems and difficulties, she can persist in recovering quickly and take circuitous ways to achieve success [7].

Previous studies have indicated that the high psychological capital of individual achievements will have positive expectations about the future, with the ability to handle different challenges encountered in the work have firm confidence, the positive psychological state could inspire individuals in the workplace has a better effort and better performance [8]. Other results suggest that the psychological capital affects the development of the individual level, group level and organizational level, but the current research on the effects of psychological capital at the individual level, more and more research on the psychological capital in the mechanism of action of staff members, students, this study mainly discusses public hospital staff psychological capital plays the intermediary role between authentic leadership and job performance.

2. BACKGROUND AND HYPOTHESES

2.1 The impact of authentic leadership on job performance.

Job performance refers to the behavior of an individual as a member of an organization when fulfilling the expectations, regulations or formal work role requirements of the organization. Borman and others on the basis of predecessors' research, the performance is divided into two kinds: task performance and the surrounding performance task performance refers to accomplish a task in the work behavior and work results, the main performance in work efficiency and work quantity and quality, etc; Peripheral performance includes interpersonal factors and volitional motivation factors, such as maintaining good working relationship,

facing adversity calmly, and taking initiative to work overtime, etc[9]. The definition of authentic leadership given by Luthans and Avolio reflects the perspective of process view. They integrate leadership studies, positive organizational behavior and related theories of moral study, believe that authentic leadership is a "leader will own positive mental ability and organization of the development of situation, to stimulate the leader and the subordinate a strong sense of self and positive self regulation behavior, ultimately promote positive self development process"[10]. Existing research results show that authentic leadership has a positive impact on job performance. Authentic leaders can influence employees' job performance through four dimensions: self-consciousness, internalization morality, and balance processing and relationship transparency. In view of this, it can be expected that authentic leadership will have a positive impact on employees' performance.

Therefore, the following hypothesis is proposed:

H1: Authentic leadership is positively correlated with job performance.

2.2 Psychological capital plays an intermediary role between authentic leadership and employees' job performance.

According to existing studies, leaders influence organizational performance by exerting certain influence on individuals and groups and making them contribute to achieving organizational goals. Authentic leaders can motivate subordinates to fulfill their work requirements and expectations by influencing them. At the same time, authentic leadership through their personal charm and the influence of the relationship with subordinates, stimulate staff's work motivation, encourage employees to rational thinking and according to the individual character characteristic to give an employee's personal care, help them to play their inner potential, to achieve the target of self-realization. Some researchers examined the mediating role of employees' psychological capital in the relationship between transformational leadership and subordinate job performance. Han yi, a domestic scholar, thinks that personality traits, knowledge and ability are currently recognized factors that may affect performance, and that psychological capital is a reliable antecedent variable of job performance [11]. Walumbwa et al. found that after controlling transformational leadership, authentic leaders influence team organization civic behavior and team performance through the mediating effect of team psychological capital[12]. Peterson et al., Rego et al., at the individual level, have proved that authentic leadership can further influence the attitude, behavior and performance of subordinates by improving their psychological capital[13]- [17]. In view of this, it can be expected that real leaders will influence employees' job performance and behavior by changing their positive mental states.

Therefore, the following hypotheses are proposed:

H2: Authentic leadership is positively correlated with psychological capital.

H3: Psychological capital plays an intermediary role between authentic leadership and employees' job performance.

3. METHOD

3.1 Sample selection and data collection

The subjects of this study were the medical staff of 6 public hospitals in Qingdao. In the end, a total of 362 questionnaires were issued, and a large number of questionnaires with missing values and some questionnaires with careless answers were eliminated. Finally, 301 valid questionnaires were recovered, with a recovery rate of 83.15%. From the perspective of gender, education degree, age and working years, the distribution law of samples is shown in table 1.

Table 1 descriptive statistical analysis results of samples

Basic information		Number of samples	%
gender	male	115	38.20
	female	186	61.80
The degree of education	High school, secondary school and below	50	16.61
	college	123	40.86
	Undergraduate course	114	37.87
	Graduate and above	14	4.66
age	Under the age of 25	42	13.95
	26 and 30 years old,	58	19.27
	31-40	89	29.57
	41-50	83	27.57
	51 and older	29	9.64
Working fixed number of year	The following 1 year	16	5.32
	1-5 years	80	26.58
	6-10	44	14.62
	10-15	35	11.63
	15-20	53	17.61
	20-30	54	17.94
	30 years or above	19	6.30

3.2 Measures

Authentic leadership. Walumbwa and Avolio 16 topics type questionnaire to measure authentic leadership behavior[18], the study of the situation in China shows that the scale has good psychological characteristics[19]. Employees respond based on Likert-5 ratings (from 1- "strongly disagree" to 5- "strongly agree").

Psychological capital. By Luthans and Youssef development 24 topics such as the Psychological Capital of questionnaire (Psychological Capital, Questionnaires, PCQ) to measure the variable[20].

PCQ's measurement of the four elements is based on the published and widely recognized standardized scale. The reliability and validity of the measurement have been verified in the context of Chinese enterprises. Employees respond based on Likert-6 point scoring method (1- "strongly disagree", 6- "strongly agree").

Performance. Job performance was measured using a scale of 11 subjects by Borman, and studies in the Chinese context showed that the scale had better psychological characteristics. Employees respond based on Likert-5 ratings (from 1- "strongly disagree" to 5- "strongly agree").

In our analysis, we control the possibility of employees' psychological capital and job performance influence of personal characteristics, including sex, education level, age and working fixed number of year. Among them, the gender of employees is the classification variable (" 1 "-female," 0 "-male), and the rest are continuous variables.

4. RESULTS

4.1 Reliability and Validity Test

In order to test the structural validity of four variables, authentic leadership, psychological capital, job performance, confirmatory factor analysis was conducted (see table 2).The job performance scale is considered to be deleted due to the excessive burden of factors in questions 9, 10 and 11.According to the results in table 2, the real type of IFI squared /df =3.352<5,IFI and CFI indexes are above 0.9, TLI, RFI and NFI indexes are above 0.8, RMSEA=0.089>0.08, close to 0.08.

The indexes of IFI and CFI are above 0.8, TLI and NFI are above 0.7, RMSEA=0.076<0.08.The performance of the service is 3.109<5, TLI, NFI, IFI and CFI are above 0.9, RFI is above 0.8, RMSEA is 0.084>0.08, close to 0.08.So the authentic leadership, psychological capital and job performance model fitting degree are good, variable structure validity was verified. The internal consistency coefficient (Cronbach's alpha) of each variable is at least 0.839, which is much greater than 0.7.

The standard of 7 indicates that the reliability of each variable is good (see table 3 for specific results).

Table 2 results of confirmatory factor analysis of authentic leadership, psychological capital, job performance (n=301)

Scale	χ^2	df	χ^2/df	TLI	RFI	NFI	IFI	CFI	RMESA
Authentic leadership	328.539***	98	3.352	0.891	0.851	0.893	0.922	0.921	0.089
Psychological capital	673.130***	246	2.736	0.782	0.695	0.750	0.826	0.822	0.076
Job performance	59.066***	19	3.109	0.923	0.890	0.925	0.948	0.948	0.084

Note: * means p<0.05, *** means p<0.01, and ** means p<0.001.

4.2 Descriptive Statistics and Correlation Analysis

In order to verify the research hypothesis, we conducted correlation analysis. The mean, standard deviation and correlation coefficient of each variable are shown in table 3.

For authentic leadership, job performance, psychological capital related analysis, and inspection of gender, education level, age, hospital working years between demographic variables and the three variables such as correlation, and list the correlation coefficient matrix. Type, according to the results of authentic leadership and there is significant correlation between psychological capital ($r = 0.391$, $p < 0.001$), authentic leadership and job performance there is significant correlation between ($r = 0.402$, $p < 0.001$), psychological capital and job performance between significant correlation ($r = 0.643$, $p < 0.001$), psychological capital between significant correlation ($r = 0.621$, $p < 0.001$), therefore, assume that 1, 2, 3, verified, as well as hypothesis test provides preliminary evidence of 4, 5.

There was no significant correlation between demographic variables and authentic leadership, psychological capital, job performance.

Table 3 correlation coefficient matrix of each variable

	M	SD	1	2	3	4	5	6	7
1.Gender	0.62	0.487							
2.The degree of education	2.31	0.800	0.027						
3.age	3.00	1.190	-0.192**	0.064					
4.Working fixed number of year	3.89	1.774	-0.085	0.048	0.835***				
5.Authentic leadership	61.85	8.882	-0.040	-0.109	-0.028	-0.097	(0.941)		
6.Psychological capital	101.10	11.688	0.076	0.050	0.045	-0.004	0.391***	(0.874)	
7.Job performance	30.91	3.506	-0.031	0.035	0.013	-0.014	0.402***	0.643***	(0.839)

Note: * means $p < 0.05$, ** means $p < 0.01$, and *** means $p < 0.001$. The Numbers in diagonal brackets are internal consistency coefficients.

4.3 Regression Analysis and Mediating Effect Test

As for the mediating effect of psychological capital between authentic leadership and job performance, we use hierarchical regression analysis to test it. As shown in table 4, the test of model 1 is to control the variables influence about the existence of psychological capital, can see the F value of 1.445, was not significant, that on the whole as control variable of demographic factors on the psychological capital has no effect. Model 2 examines the influence of authentic leaders on psychological capital, and the results show that authentic leaders have a significant positive influence on psychological capital. Model 3 examines the causal relationship between authentic leadership and job performance. It is found that authentic leadership has a significant positive influence on job performance. And model 4 joined the psychological capital of the intermediary variable, type authentic leadership impact on job performance is also reduced but still significant ($\beta = 0.179$, $p < 0.001$), psychological capital in real type partial intermediary role between leadership and job performance.

Table 4 results of hierarchical regression analysis (N=301)

variable	Psychological capital		Job performance		
	M1	M2	M3	M4	M5
Control variables					
gender	0.99	0.109*	-0.025	-0.015	-0.078
The degree of education	0.43	0.086	0.035	0.79	0.029
age	0.196	0.127	0.067	-0.004	-0.077
Working fixed number of year	-0.161	-0.065	-0.074	0.024	0.062
Explanatory variables					
Authentic leadership		0.402***		0.412***	0.179***
Psychological capital					0.581***
R ²	0.019	0.176	0.004	0.169	0.447
Adjust R ²	0.006	0.162	-0.010	0.155	0.435
ΔR^2		0.157		0.165	0.278
F	1.445	12.609***	0.288	11.966***	39.555***

Note: * means $p < 0.05$, ** means $p < 0.01$, and *** means $p < 0.001$.

5. DISCUSSION AND ENLIGHTENMENT

5.1 Discussion

This study was to explore the hospital authentic leadership on employee job performance, especially the research staff mediating effect of psychological capital, the study found that: Authentic leadership and psychological capital have significant positive correlation. There is a significant positive correlation between authentic leadership, psychological capital and job performance. Psychological capital plays an intermediary role between authentic leadership and job performance. In conclusion, the research results show that the three hypotheses in this paper are well supported. The theoretical contribution of this study is that in the past for authentic leadership effect research mainly discusses from two aspects, is a team for the analysis to discuss the influence of type authentic leadership to the team, including team psychological capital[21], team effectiveness[22] [23] and team[24]etc.

And a recent study, study of the enthusiasm of people is becoming more and more attention to in the human resource management, how to strengthen the staff's positive psychological state and its cause of work attitude and job performance in management is becoming more and more attention to the influence of the end. The results of this study theoretically verify that authentic leadership at the individual level can influence job performance. And its mechanism of action for employees through the experience of authentic leadership, so as to improve its own psychological capital (self-efficacy, optimism, hope, and resilience), which in turn promoted their job performance. On the other hand, this study has certain guiding significance for the management practice of public hospitals in the field of medical and health care in the public

management department. Medical and health care is a special field. Although the work of medical personnel is relatively stable, due to the unique nature of their work, they often face greater pressure of liability accidents. Lee and Robert thinks, in order to stimulate positive behavior, effective leadership requires able to take advantage of its core quality advantage, to keep it real and lasting quality, and to show their courage, creativity, patience, motivation and enthusiasm. If these qualities of a leader are unchanging, unconscious, or unskillfully applied, the leader will not be able to meet the demands of a rapidly changing complex environment. Therefore, effective leadership should be able to command employees, understand how to motivate and clearly understand their own environment, and adapt to changes in the environment.

This study found that the hospital can play its real authentic leadership, namely, have good sense of self and internalized morality, good balance processing, maintain relationships transparent, in order to enhance the medical staff's psychological capital, and further improve their job performance. The positive influence of hospital leaders on employees' job performance will play a positive role in improving the service quality of doctors and nurses and reducing medical accidents.

5.2 Enlightenment

There are some limitations in this study. One is at the same time we collect authentic leadership, psychological capital and job performance data, although the results are consistent with expected, but the cross section data cannot verify the causal relationship, in future it is necessary to adopt vertical and horizontal intersection research methods to study more fully. Second, the data of this study come from 6 public hospitals in Qingdao area. Whether the results are applicable to hospitals in other areas requires further examination. Finally, for authentic leadership, job performance questionnaire evaluation is made on the staff appraisal way, as a result of the existence of social desirability bias, the measured results may be there is a certain limit, the future can be the leadership - employees matching evaluation way.

ACKNOWLEDGMENTS

The research is supported by grants from the National Social Science Fund of China and National Natural Science Foundation of China awarded to the first author. Project numbers are 14CGL073 and 71672186. The research is also supported by Shandong Social Science Planning Fund Program-Study and the Subjects in Humanities and Social Sciences, Project numbers are 16CJYJ15 and 17YJC710040 respectively. Finally, appreciate the University of California, Santa Barbara, Psychological and Brain Sciences, Professor Jonathan Schooler and Stanford University, Professor Henry Etzkowitz's help to our study.

REFERENCES

[1]Xiao Z, liu Q. How hospitals improve the executive power of middle-level cadres. China Geriatrics Medicine, 2008, 5.

- [2]Wang Z, Song M, Sun J. Authentic leadership: concept, measurement, formation and function, *Journal of Psychology*, 3rd issue, 2014.
- [3]Avolio B, Luthans F. Authentic leadership: a positive development approach. *Positive Organizational Scholarship*, 2003: 241-258.
- [4]Ilies R, Morgeson F P, Nahrgang J D. Authentic leadership and eudaemonic well-being: Understanding leader-follower outcomes. *The Leadership Quarterly*, 2005, 16(3): 373-394.
- [5]Han Y, Yang B. Authentic leadership: theory, measurement and the latest research progress. *Science and Technology Management*, 2009, 2.
- [6]Ren H, Wen Z, Chen Q, Ye B, "the influence mechanism of psychological capital of working team leadership on organizational citizenship behavior of members: multi-level model", *Journal of Psychology*, 2013, 1.
- [7]Luthans F, Youssef C M, & Avolio B J. *Psychological capital: Developing the human competitive edge*. Oxford, UK: Oxford University Press, 2007, 2-4.
- [8]Alexaaner N, Deniz U, Fei Z, & Giles H. Psychological capital: A review and synthesis. *Journal of Organizational Behavior*, 2014, 35, 120-138.
- [9]Walter C B, Stephan J M, & Mark J S. A theory of individual difference in task and contextual performance. *Human Performance*, 1997, 10(2),71-83.
- [10]Coyle - Shapiro J A M. A psychological contract perspective on organizational citizenship behavior. *Journal of Organizational Behavior*, 2002, 23(8): 927-946.
- [11]Han yi, liao Cambridge, long lirong, model construction and empirical study of employee performance structure, *journal of management science*, 5th issue, 2007.
- [12]Walumbwa F O, Luthans F, Avey J B, & Oke A. Authentically leading groups: The mediating role of collective psychological capital and trust. *Journal of Organizational Behavior*, 2011, 32, 4–24.
- [13]Peterson S J, Walumbwa F O, Avolio B J, et al. **RETRACTED**: The relationship between authentic leadership and follower job performance: The mediating role of follower positivity in extreme contexts. *The Leadership Quarterly*, 2012, 23(3): 502-516.
- [14]Rego A, Sousa F, Marques C, et al. Authentic leadership promoting employees' psychological capital and creativity. *Journal of Business Research*, 2012, 65(3): 429-437.
- [15]Rego A, Sousa F, Marques C, et al. Hope and positive affect mediating the authentic leadership and creativity relationship. *Journal of Business Research*, 2014, 67(2): 200-210.
- [16]Han Y, Yang B. Authentic leadership, psychological capital and employee innovation: the moderating role of leadership exchange. *Management world*, 2011, 12.
- [17]Wang Y, Chen W, "A study on the relationship between sincere leadership perception, psychological capital and job embedding", *East China Economic Management*, 2013, 5.
- [18]Sui Y, Wang H, Yue Y, Fred Luthans. The transformational leadership on employee job performance and satisfaction: the influence of the mediating role of psychological capital and process fair regulation, *Journal of Psychology*, 2012, 9.
- [19]Walumbwa F O, Avolio B J, Gardner W L, et al. Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 2008, 34(1): 89-126.

- [20]Youssef C M, Luthans F. Positive organizational behavior in the workplace: The impact of hope, optimism, and resilience. *Journal of Management*, 2007, 33(5): 774-800.
- [21]Zhong L, "the influence of psychological capital on employees' work performance, organizational commitment and organizational citizenship behavior", *Journal of Psychology*, 2007, 2.
- [22]Özkan S, Ceylan A. Multi-level analysis of authentic leadership from a Turkish construction engineers perspective. *South East European Journal of Economics and Business*, 2012, 7(2): 101-114.
- [23]Rego A, Vitória A, Magalhães A, et al. Are authentic leaders associated with more virtuous, committed and potent teams? *The Leadership Quarterly*, 2013, 24(1): 61-79.
- [24]Lee G, Roberts I. Coaching for authentic Leadership. *Leadership Coaching. Working with Leaders to Develop Elite Performance*, London, 2010: 17-34.