Evaluation of skill gaps of health-care leaders in Indian public and private sectors

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ABSTRACT

Background: Indian health care is experiencing a significant shift in terms of requirement of resources and changing demographic pattern. The customer-oriented and quality conscious competitive environment has intensified the need for health-care organizations to attain higher levels of organizational performance. Competencies of health-care leaders play a pivotal role in deciding the organizational development and strategic growth. A cross-sectional study of select health-care leaders' of India was done from various hospitals and other health delivery agencies to identify and analyze the gaps in competencies. **Objectives:** The study objectives were to identify the existing leadership competencies of private and public health-care executives, assess and compare these competencies against standardized leadership models, and recommend key competencies for Indian leaders. **Materials and Methods:** A cross-sectional study was carried out amidst health-care leaders of India so as to assess their leadership competencies. Health-care leaders of India were identified after focused group discussion and senior health-care leaders such as Directors, Deans, CEOs, and Principals were shortlisted for this study. Two structured questionnaires were administered to health-care leaders of various hospitals in India. The ratings in the questionnaire were on a Likert scale ranging from very poor to excellent. Respondents were asked to self-evaluate various competencies and the same was analyzed using the SPSS statistical software. Interpretation of results of data analysis was done. Ethics Committee Clearance was taken from the institute where the study was done. **Results:** A total of 300 questionnaires were sent of which 106 questionnaires were completed and returned back by select health-care leaders, 78 were doctors and 28 were nursing executives. The study has been able to identify deficiencies in the perceived "existing competency" and "required competency" levels in the selected competencies amidst public and private sector health executives. **Conclusion:** The findings of this study suggest that there is deficiency in perceived "existing competency" and "required competency" levels in the selected competencies of health-care leaders both from private and public sectors. Indian health-care leaders are operating at operational level and have not graded themselves highly in transformational roles. There is a need for training to bridge the competency gap of Indian health-care leaders both in public and private sectors.

KEY WORDS: Health care, Health leaders, Competencies, Process management, Strategic orientation, Accountability

INTRODUCTION

The health sector in India is undergoing a paradigm shift. Indian health-care leaders have to face fresh challenges everyday; thus, it is important to assess their leadership competencies which can help Indian health-care leaders attain their objective. To achieve the various health-care goals and plans as designed by the leaders, their role in redefining delivery is of utmost importance. All managers, irrespective of where or what they manage, perform four generic tasks. These include planning, organizing, leading, and controlling.[1] Thus, the question what is leadership cannot be separated from what is followership? There is no simple line dividing them, they merge.

Leader Follower Relationship

Fred Fiedler was, perhaps, the first researcher who formally recognized the importance of leader, follower, and situation in the leadership process. Leadership is an interaction of three elements – the leader, the follower, and the situation.

Thus, leadership is $L=f(l,f,s)$[1]

It is important to understand here that when this definition refers to leaders and followers, one should not assume that it refers to only a hierarchical relationship. Any time an individual is attempting to influence the behavior of someone else that individual is the potential leader and the person subject to the influence attempt is the potential follower.[1]

Leadership is the result of complex set of interactions amongst leaders, followers, and situations. An example of one such interaction between leaders and followers is evident in what has been called in-groups and out-groups. Sometimes, there is a high degree of mutual influence and attraction between the leader and few subordinates, these subordinates belong to the in-group. Other subordinates belong to the out-group. Leader member exchange theory describes these two kinds of relationships and how they affect the types of power and influence tactics leaders use. Followers' expectations, personality trait, maturity levels, levels of competence, and motivation affect the leadership process. The situation is the third critical part of the leadership equation. Concept of leadership and their interaction with follower is highly dependent on situations.[2] Competency is defined as the minimum standards required to perform a job. A competent individual has the requisite skills and abilities to perform a job satisfactorily. Competency assessment ensures that every employee performs at least at minimal acceptable level. Competency assessment also gives us an insight into why some perform exceedingly well, whereas others fail under similar situations.

Importance of Competencies[3]

Competencies are a critical lever to produce leadership brand within an organization for at least five reasons as they guide direction, are measurable, they can be learnt, can distinguish and differentiate the organization, and can help integrate management practices.

It is essential to endow health-care leaders in India with requisite competencies to handle situations arising out of the changing scenario of health-care sector. Health leaders are especially challenged to create work climates that motivate high-quality, patient-centered care and retain high demand talent in a very competitive market place.[4]

Now, the cause of concern is to find if health-care leaders of India at various levels of management have the required skills to lead their teams in trying times. It is imperative to assess the presence of critical competencies of health-care leaders which they can gainfully utilize for optimal health-care delivery. Competencies of health-care leaders in India need to be identified without which the process of leading and ultimate vision of realizing health-care goals may be compromised. Technical competence[5] is the knowledge and repertoire of behaviors, one can bring to bear to successfully complete a task. Data analysis of outstanding versus typical performance identified three expertise areas that the outstanding performers demonstrated and that predict outstanding performance included performance measurement, strategic orientation, and information technology management. The various reasons for having technical competence are as follows:

(i) Performance is often a function of technical competence.[3]
(ii) Followers with high level of technical competence can have a lot of expert power and can wield more influence in their group than the leader does.[6]
(iii) Having high level of technical competency helps in promotion.[7]
(iv) Having high level of technical competence is important because most of first-line supervisors spend considerable time in training followers.[8]

Leaders with high level of technical competence seem to be able to stimulate followers to think about problems and issues in new ways which has been found to be related to organizational climate ratings and followers motivation to succeed.[3] Health systems are very complex and it requires lot of consensus building. Health-care leaders must be endowed with critical competencies to achieve the desired level of working skills for optimal outcome of the industry. Health-care leaders should have coalition and consensus building competencies at higher levels than their counterparts in other sectors. Health leaders are especially challenged to create work climates that motivate high-quality, patient-centered care and retain high demand talent in a very competitive market place.[5] The purpose in establishing competencies for leaders should be to better define what functions leaders must perform to make themselves and others in their organizations effective.

MATERIALS AND METHODS

The National Centre for Health Care Leadership (NCHL) defined three domains – transformation (strategic), execution (organizing and controlling), and people (leadership) – comprising 26 competencies, which encapsulates health management today. This study utilized the NCHL model to generate a questionnaire, which aimed to assess the perceived, and the required skills and competencies of Indian health-care leaders so as to analyze the gaps and the need for augmenting specific skills.

Table 1: Respondent profile analysis

Variables	Frequency	Percentage
Age in years		
20–29	1	0.94
30–39	2	1.89
40–49	11	10.38
50–59	72	67.92
60–69	15	14.15
70 and more	5	4.72
Sex		
Male	72	68.57
Female	33	31.43
Clinical experience		
<10 years	25	23.81
10–20 years	33	31.43
21–30 years	27	25.71
31–40 years	18	17.14
More than 40 years	2	1.90
Years in management position		
<10 years	45	43.27
10–20 years	36	34.62
21–30 years	14	13.46
31–40 years	8	7.69
More than 40 years	1	0.96
Years in current position		
<10 years	82	79.61
10–20 years	16	15.53
21–30 years	4	3.88
31–40 years	1	0.97
More than 40 years	-	-
Primary academic qualification		
Medical	78	73.58
Nursing	28	26.42
Specialization		
Specialists	93	87.74
Non-specialists	13	12.26
Type of specialization		
Mch, DM, PhD	15	14.15
MD, MS, MHA	51	48.11
Nursing PG	10	9.43
Diploma	24	22.64
Others	6	5.66
Exposure to training in health administration		
Trained	88	83.02
Untrained	18	16.98
Formal training		
Degree	39	38.24
Certificate	31	30.39
Others	32	31.37

(*Contd...*)

Table 1: (*Continued*)

Variables	Frequency	Percentage
Informal training		
Mentored	19	18.27
Coached	3	2.88
In-house program	24	23.08
Job shadowed	22	21.15
Others	36	34.62
Sector		
Public	81	76.42
Private	25	23.58
Hospital size		
<100	21	20
101–300	17	16.19
301–500	7	6.67
More than 500	60	57.14
Number of employees		
<100	18	17.14
101–500	16	15.24
501–1000	21	20.00
More than 1000	50	47.62

Two questionnaires, scaled on Likert scale, were framed out of selected competencies from various health-care models and distributed amidst the selected sample of health-care leaders who were doctors and nursing executives.

The first questionnaire elicited response to please rate your level of competency.

The second questionnaire elicited response to how important do you think the following competencies are for you to perform your duties efficiently and effectively?

The first questionnaire elicited the perceived level of individual health-care leader's competencies and the second questionnaire elicited the perceived need for same competencies for effective execution of their task.

Structured questions were quantified and were tabulated on an Excel sheet. The data collected from both questionnaires were tabulated in various combinations and were analyzed using the SPSS 15. Data were described with mean, standard deviation, and frequency with percentage. The data were subjected to paired t-test and independent t-test for evaluation. Student's t-test was carried out to measure the significance of the difference between the means of self-assessed proficiency levels and perceived importance levels. The scales of each competency level were administered reliability tests in the form of Cronbach's alpha and tested. These were then subjected to analysis and further inferences were drawn. Inferences were drawn about health-care leaders' competencies from the questionnaires. Evaluation

Table 2: Public and private sector health leaders

Sector	Freq.	Percentage
Public	81	76.42
Private	25	23.58

of questionnaires was also drawn to analyze competencies between trained and untrained health-care leaders and public and private sector health-care leaders.

RESULTS

Respondent Data

Respondent data revealed that most health-care leaders are in the age group of 50–59. Males outnumber the females in gender distribution. Eighty-two respondents were in their current position for less than 10 years (79.61%). Forty-five (43.27%) respondents were in management position for less than 10 years. Ninety-three (87.74%) respondents were specialists and 13 (12.26%) were non-specialists. This is evident of the fact that the specialists take on the administrative responsibilities in the later part of their career. Eighty-eight (83.02%) respondents had training in health and nursing administration. Formal training in the form of awarded degree was received by 39 (38.24%) and certificate training was received by 31 (30.39%). The number of respondents from public sector was 81 (76.2%) and from private sector was 25 (23.58%). Sixty (57.14%) respondents were from hospitals, which are 500 bedded or more [Table 1].

DISCUSSION

Of the sample of 106 health-care leaders studied, 81 of health-care leaders were from public sector hospitals of India and 25 health-care leaders were from private sector hospitals of India [Table 2].

Of the 26 competencies, three competencies in this study are statistically significant for public sector healthcare leaders which are accountability, performance management, and process management. Two of them that are performance management and process management are technical competencies. The competencies are enumerated in Table 4. A detailed statistical evaluation of the competencies is done in Table 3.

Of the 26 competencies, 6 competencies are statistically significant for health-care leaders of private sector, of which financial skills, performance management, and process management are technical competencies. The competencies are enumerated in Table 4. A detailed statistical evaluation of the competencies is done in Table 3.

Comparison with other studies done by Lussier, 2006; Hellriegel *et al.*, 2006,[9] health management (Pillay, 2008;

NCHL, 2006)[10] show that human resource management is a technical competency which is statistically significant in private sector health-care leaders. Indian private sector leaders stress more on retaining trained workforce. Private sector health-care leaders perceive that collaboration, communication skills, and achievement orientation competencies in them are higher than public sector health-care leaders. There is a definite requirement of people management skills such as communication and conflicts resolution by both private and public sector health-care leaders. This is also proved by a study done by Pillay[11] in 2008 on capacity building in both the sectors health-care leaders. It reinforces the fact that in health-care teams, teamwork is critical success factors in hospital management. The importance of the competencies of accountability and performance management is high in both public and private sector. It also validates modern approaches to management and leadership development, which focuses not only on enhancing cognitive ability but also on emotional and spiritual intelligence as well.[12] It shows that the high value placed on self-management skills suggests that managers feel that there is an intrinsic link between personal and career effectiveness.

Strength and Limitations

The results of this study show that both the public and private sector managers rated competencies related to "people management," "self-management," and "task-related skills" highest followed by "strategic planning" and "health delivery," respectively. The largest differences between mean importance rating and mean skill rating for public sector managers were for people management skills, task-related skills, and self-management skills. The largest deficits for private sector managers were for people management skills, self-management skills, and health delivery skills. Informal management development programs were found to be more valuable in improving management skills. For other health sector organizations, leaders are transactional, reflective, consultative, and inclusive, crafting a way for the organization to deliver operational outcomes in complex social or political environments.[13] Hospital leaders have to respond to new technology, new organizational goals, and new challenges. The most effective leaders have responded to the dynamism of the health-care field by altering their leading skill set.[14] Leadership and managerial competencies play a very important role in achieving effectiveness and efficiency of health facilities performance in low- and middle-income countries. Hospital managers should have sufficient levels of leadership and managerial competencies to coordinate the complex environment.[15] The competitive pressures of the present environment, the growing dynamism and uncertainty of markets, the increasing rate of technological development, and other political and social factors have called paradigm change in health-care organization. They also face continuous challenge to adapt the change and also to improve the quality

Table 3: Competency analysis between public sector and private sector health leaders

Competency	CLASS public (*n*=81) private (*n*=25)	Ratio	Q1 Mean+SD	Q2 Mean+SD	*P* value
Accountability	Public	1.07±.197	17.91+3.56	18.91+3.91	0.06
	Private	1.06±.129	17.88+3.94	18.72+3.51	0.028
# P value		0.834	0.968	0.825	
Achievement orientation	Public	0.985±.171	21.95+3.981	22.72+4.56	0.059
	Private	0.937±0.125	21.80+4.54	23.40+4.60	0.009
# P value		0.197	0.873	0.515	
Analytical thinking	Public	1.02 ±0.180	14.63+2.65	14.79+4.30	0.732
	Private	0.986±0.141	13.96+2.993	14.24+2.78	0.493
# P value		0.374	0.288	0.549	
Change leadership	Public	0.991±0.142	21.79+4.173	22.1+4.25	0.257
	Private	1.00±0.191	21.68+3.81	22.24+4.85	0.349
# P value		0.784	0.907	0.947	
Collaboration	Public	0.99±0.141	18.86+4.018	19.20+3.97	0.241
	Private	1.00±0.162	19.72+3.18	20.00+3.58	0.601
# P value		0.754	0.332	0.369	
Communication skills	Public	1.01±0.180	14.74+3.049	14.64+2.964	0.717
	Private	1.04±0.188	15.68+3.31	15.28+3.37	0.360
# P value		0.567	0.190	0.365	
Community orientation	Public	0.985±0.158	22.09+4.88	22.56+4.38	0.214
	Private	0.975±0.143	21.32+4.151	22.00+4.08	0.254
# P value		0.788	0.480	0.575	
Financial skills	Public	0.992±0.247	16.44+3.82	17.04+4.05	0.153
	Private	0.935±0.324	15.00+4.50	16.64+4.319	0.019
# P value		0.354	0.117	0.674	
Human resources management	Public	0.990±0.194	13.46+2.37	13.84+2.43	0.176
	Private	0.909±0.287	11.76+3.29	13.28+2.71	0.017
# P value		0.108	0.005	0.331	
Impact and influence	Public	0.998±0.168	19.98+3.80	20.25+3.70	0.460
	Private	0.994±0.149	18.40+3.80	18.64+3.59	0.632
# P value		0.922	0.073	0.059	
Information seeking	Public	0.977±0.152	18.19+3.54	18.80+3.52	0.053
	Private	0.981±0.111	17.68+3.21	18.28+3.99	0.174
# P value		0.909	0.526	0.531	
IT management	Public	0.994±.0190	14.35+3.01	14.59+2.84	0.493
	Private	0.979±0.131	14.16+2.62	14.68+3.10	0.178
# P value		0.712	0.782	0.896	
Initiative	Public	0.985±0.160	17.74+3.77	18.15+3.53	0.190
	Private	0.999±0.139	17.88+3.63	18.08+3.71	0.666
# P value		0.707	0.871	0.934	
Innovative thinking	Public	0.992±0.153	18.20+3.36	18.56+3.53	0.249
	Private	0.994±0.120	17.88+3.83	18.20+3.76	0.410
# P value		0.962	0.681	0.666	
Interpersonal understanding	Public	1.01±0.141	18.57+3.54	18.51+3.40	0.830
	Private	0.984±0.141	17.56+3.93	17.84+3.47	0.545
# P value		0.429	0.229	0.397	

Table 3: (*Continued*)

Competency	CLASS public (*n*=81) private (*n*=25)	Ratio	Q1 Mean+SD	Q2 Mean+SD	*P* value
Organizational Awareness	Public	0.980±0.166	17.32+3.59	17.85+3.50	0.105
	Private	0.987±0.211	16.28+3.71	16.76+3.88	0.428
# *P* value		0.866	0.212	0.188	
Performance measurement	Public	0.970±0.194	10.31+2.177	10.84+2.27	0.026
	Private	0.904±0.218	9.80+2.46	11.04+2.54	0.013
# *P* value		0.154	0.325	0.709	
Process management	Public	0.963±0.198	13.84+2.93	14.58+2.88	0.011
	Private	0.923±0.158	13.48+3.89	14.60+3.45	0.015
# *P* value		0.362	0.623	0.977	
Professionalism	Public	1.01±0.177	15.10+3.14	15.16+3.13	0.816
	Private	0.986±0.133	15.16+2.98	15.36+2.37	0.593
# *P* value		0.515	0.932	0.770	
Project management	Public	1.02±.231	10.74+2.25	10.69+2.35	0.827
	Private	0.990±0.122	10.76+2.36	10.96+2.73	0.446
# *P* value		0.433	0.971	0.633	
Relationship building	Public	0.991±0.184	17.83+3.84	18.32+3.88	0.147
	Private	0.940±0.107	17.64+3.59	18.88+3.63	0.013
# *P* value		0.189	0.829	0.525	
Self-confidence	Public	1.01±0.184	19.06+3.79	19.19+3.87	0.708
	Private	0.989±0.112	18.92+3.62	19.20+3.51	0.479
# *P* value		0.567	0.869	0.986	
Self-development	Public	0.994±0.157	14.77+2.83	15.14+3.23	0.149
	Private	0.987±0.118	14.76+2.58	15.12+3.00	0.321
# *P* value		0.839	0.993	0.983	
Strategic orientation	Public	0.979±0.179	13.79+2.58	14.31+2.75	0.052
	Private	1.03±0.737	12.24+3.59	13.24+3.72	0.062
# *P* value		0.510	0.019	0.123	
Talent development	Public	0.999± .172	22.05+4.69	22.32+4.43	0.488
	Private	0.968± .112	21.48+4.36	22.20+3.86	0.164
# *P* value		0.401	0.591	0.903	
Team leadership	Public	1.00±0.154	22.91+4.96	23.06+4.91	0.685
	Private	0.987±0.156	22.80+4.89	23.44+5.14	0.283
# *P* value		0.638	0.920	0.740	

*paired t-test used; #independent *t*-test used.

Table 4: Statistically significant competencies

Public sector health-care leaders	Private sector health-care leaders
Accountability	Accountability
Performance measurement	Achievement orientation
Process management	Financial skills
	Human resource management
	Performance measurement
	Process management

of care.[16] Hence, it is imperative that the health leaders of both the sectors augment themselves with the latest developments in analytics and health-care metrics.

CONCLUSION

The study has found deficiencies in the perceived "existing competency" and "required competency" levels both sectors, but the receptivity of need is more in private sector as they have to perform at a different level. These findings reflect the reality of the local health service environment and the needs of health managers. It will be useful in the conceptualization, design and delivery of health management programs aimed at enhancing current and future management, and leadership capacity in the health sector in India. The areas in which lack of knowledge or skills was most significant were identified. This will help us to identify the competencies required for various levels of leadership position.

REFERENCES

1. Paul H, Kenneth HB, Dewey EJ. Management of Organizational Behavior. 9th ed. New Delhi: PHI Publishing Private Limited; 2009. p. 62.
2. Hughes RL, Ginnet RC, Curphy GJ. Leadership: Leadership is Everyone's Business. 6th ed. New Delhi: Tata Mc-Graw Hill Publishing Company Limited; 2008. p. 27.
3. Intagliata J, Ulrich D, Smallwood N. Leveraging leadership competencies to produce leadership brand: Creating distinctiveness by focusing on strategy and results. Hum Resour Planning 2000;23:12-23.
4. National Center for Healthcare Leadership Health Leadership Competency Model Version 2.0. p. 3.
5. Curphy GJ. Leadership transitions and succession planning. In: Developing and Implementing Succession Planning Programs. Chicago: Society for Industrial and Organizational Psychology; 1994.
6. Bugental DE. Astudy of Attempted and Successful Social Influence in Small Groups as a Function of Goal Relevant Skills. Dissertation Abstracts; 1964. p. 660.
7. Blau PM. The hierarchy of authority in organizations. Am J Sociol 1968;73:453-67.
8. Wexley KN, Latham GP. Developing and Training Human Resources in Organization. New Jersey: Prentice Hall; 1981.
9. Lussier RN. Management Fundamentals: Concepts, Applications, Skills Development. United States of America: Thomson South-Western; 2006.
10. Pillay R. Managerial competencies of hospital managers in South Africa: A survey of managers in the public and private sectors. Hum Resour Health 2008;6:4. Available from: http://www.human-resources-health.com/content/6/1/4. [Last accessed on 2008 Feb 10].
11. Pillay R. Defining competencies for hospital management: A comparative analysis of the public and private sectors. Leadersh Health Serv 2008;21:99-110.
12. Grewer D. Changing Leadership for Changing Times. Paper Presented at Leadership in the 21st Century: International Conference on School Business Management; 2007.
13. Followers N. Leadership in Dynamic and Diverse Health Sector Organizations. Berlin: Springer; 2016. p. 1-16.
14. Alloubani A, Hussein K, Almatari M. Review: Effects of leadership styles on quality of services in healthcare. Eur Sci J 2014;10:118-29.
15. Tuong PV, Thanh ND. A Leadership and managerial competency framework for public hospital managers in Vietnam. AIMS Public Health 2017;4:418-29.
16. Santilli J, Vogenberg FR. Key Strategic trends that impact healthcare decision-making and stakeholder roles in the new marketplace. Am Health Drug Benefits 2015;8:15-20.