

**This is an electronic reprint of the original article.
This reprint *may differ* from the original in pagination and typographic detail.**

Author(s): Viitanen, Elina; Mikkola, Leena; Parviainen, Heli

Title: Good medical leadership assessed by doctors in training

Year: 2015

Version:

Please cite the original version:

Viitanen, E., Mikkola, L., & Parviainen, H. (2015). Good medical leadership assessed by doctors in training. *HealthMED*, 9(5), 190-198.
http://www.healthmed.ba/pdf/healthmed_9_5_web.pdf

All material supplied via JYX is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of the repository collections is not permitted, except that material may be duplicated by you for your research use or educational purposes in electronic or print form. You must obtain permission for any other use. Electronic or print copies may not be offered, whether for sale or otherwise to anyone who is not an authorised user.

Good medical leadership assessed by doctors in training

Viitanen Elina¹, Mikkola Leena², Parviainen Heli¹

¹ School of Health Sciences, University of Tampere, Finland,

² University of Jyväskylä, Finland.

Abstract

Introduction: Medical leadership has only recently begun to be part of common medical terminology. Medical leadership consists of fully trained physicians occupying management positions relevant to practice of medicine. The need to further develop leadership skills of physicians has opened up a discussion to increase leadership studies also in medical training.

Methods: Essays on good medical leadership and doctors as leaders in healthcare organizations. The essays (n=225) were written as part of leadership and management training for specialist degree in medicine in a Finnish university during years 2012-2013.

Results: As assessed by specializing physicians, good medical leadership of doctor leaders consists of interpersonal and communication skills, appropriate management of medical expertise, and people and resources management abilities. In the results, emphasis was put on interpersonal and clinical skills of doctor leaders. In the observations made by doctors in training, no differences in leadership were found between specialized and primary healthcare.

Conclusion: The assessments on good medical leadership support the concept of transformative leadership in healthcare organizations. It would be important to promote further discussion and solving of leadership challenges during specialist training. Furthermore, the role played by the leaders of young physicians trained in healthcare organizations and the management skills of these doctor leaders is also an important topic to consider.

Key words: Doctor Leader, management skills, doctor in training

Introduction

This article describes perception about doctor leaders' medical leadership and management skills, made by specializing physicians during their clinical training in primary and specialized healthcare.

To be a good doctor and leader

In hospitals and clinics, many aspects of physicians' daily routine have changed dramatically during the past generation, adding another level of complexity to the management of healthcare (1).

Medical leadership is at the core of health reforms in a number of countries when policy makers acknowledge that delivering the desired improvements in healthcare, including quality, safety and value, is very dependent on doctors and their active engagement (2). In parallel with political and organizational change, the medical profession has been redefining the characteristics of a good doctor. This includes not only the reinforcement of the need for doctors to be clinical experts but also the not so obvious need for them to be good managers and leaders (1, 2, 3).

Healthcare organizations pose specific leadership challenges for several reasons. Firstly, as organizations they are complex, usually characterized by multi-level professional workforce and silos or freedoms of specialties (4, 5). Secondly, characteristics of physicians and their training conspire against their having reflexes for collaboration or followership: these are needed for effective teamwork that leaders must harness for ensuring positive organizational change (6). Thirdly, the demands of medical training and academic settings, of developing academic skills and performance, often compete for physicians' attention and, thereby, potentially handicap the development of

leadership skills. Finally, healthcare today faces a number of pressing challenges regarding access, affordability and quality (7). Considerable evidence supports the notion that leaders and their actions affect organizational results (8).

While several studies in recent years have sought to identify factors that promote effective physician leadership (9-13), limited focus has been put on understanding how doctor leaders themselves construe their roles. The typically dual role of physicians as both consumers of healthcare resources and controllers of organizational revenues in their ability to direct patients and prescribe care, makes leadership relationships with physicians fairly atypical in comparison with key stakeholder relationships in other industries (14).

In an interview study, Quinn sought to find out how doctor leaders themselves construe their roles, by interviewing 25 physicians in four hospitals within a single healthcare organization. Findings suggest that identity at individual, relational and organizational level has a significant impact on how physicians understand and enact leadership, and that acceptance of a dual identity may be advantageous for success as a doctor leader (15).

As doctors progress through their training a classification process is thought to occur: they are not only learning how to become doctors and care for patients, but also being socialized into a profession and assuming their identity as physicians (16). When they, then, move on to leader roles the majority of physicians hold on to their primary identity (17). The value of their identity as doctors lies in their expertise which has been reinforced through their professional group (15).

With a few exceptions, not many doctors have been prepared for their leader roles, whether as practitioners or those who assume positional leadership roles. Large part of their development as leaders has been remedial, episodic and ad hoc. Yet, from the moment they graduate, doctors require a range of leadership and service improvement competencies which become more important as they go forward to become consultants and general practitioners (2).

Traditionally, clinical skills have been the main focus of medical training. However, with the growing trend towards more team-based practice and integrated care approaches, it is recognized

that doctors need to be safe, capable practitioners and demonstrate skills to function efficiently and effectively within complex health systems (18).

Medical leadership

Medical leadership has only recently begun to assume its place in common medical terminology. Medical leadership consists of having fully trained physicians occupying leadership roles relevant to practice of medicine. Leadership can include managing resources, making decisions, recruiting and medical consulting, as well as implementing changes and improvements in hospitals and clinics. In addition, medical leadership should include appropriate skills in team building and sharing of decision power (19).

From this perspective, there is no room for all-powerful leaders who have nothing in common with the team they are managing. Good medical leadership depends on the acknowledgement and the understanding of how important role all the healthcare workers involved in the functioning of a hospital have (19). Stoller has suggested four features of doctors and medical training that may conspire against their having instincts or reflexes to collaborate: physicians 1) go through a long and hierarchical training often with extended subordination, 2) they are extensively evaluated, usually based on individual performance rather than group or team-based performance, 3) they may experience extrapolated leadership in which they extend the clinical authority that is conferred to them by patients to settings for which it is irrelevant, and 4) they are deficit-based thinkers, specifically because differential diagnostic thinking encourages physicians to identify problems (6).

Prior to the specialist training, physicians in training have worked as doctors in different areas of healthcare for a certain period of time and have been strongly socialized into the profession. During their career they have come across different kinds of doctor leaders, especially during the final years of clinical training when their manager is often also their tutor for clinical work. Leadership and management studies during the specialist training are aimed at supporting physicians' knowledge and skills on the most important issues related to leadership.

Leadership skills

There is much debate on the nature and components of management and leadership skills. Various competences and lists of required skills are presented in studies. Recently, researchers have emphasized that good leadership must be transformational, requiring leaders to be able to empower and motivate their workforce, define and articulate a vision, build and foster trust and relationships, adhere to accepted values and standards, and inspire their team members to accept change and meet organizational goals on multiple levels (14, 20).

The scope of their professional activities requires physicians to be good team leaders. In fact, doctors working in clinics as well as in hospitals lead small groups of healthcare professionals on a daily basis. While the teams may seem small, physicians nonetheless need to demonstrate essential leadership skills. When they work in large hospitals they also have to be able to appropriately execute directions issued by their superiors to ensure smoothness of inter-staff relationships and the well-being of the hospital environment. Most doctors are constantly involved in situations where they need to be both able to manage and be managed (1).

In interviews of ten academic internal medicine chairs, several critical leadership success factors were identified, including mastery of visioning, communication, change management, emotional intelligence, team building, business skills, personnel management and system thinking (10).

After studying the leadership skills of young aspiring physician leaders and experienced physician leaders, Taylor et al. have proposed four general competences for effective physician leaders: knowledge, emotional intelligence (defined as self-awareness, self-regulation, motivation, empathy and social skills), vision, and organizational altruism. Good personal characteristics were considered to be charisma, ability to create vision, being energetic, taking care of others and being empathetic (13). Both aspiring and established leaders agreed that knowledge, people skills or emotional intelligence and vision were all characteristics of effective leaders and critical for the success of aspiring leaders. In addition, established leaders mentioned organizational orientation as a characteristic; this extended the description of leaders to

include an understanding of the institution as well as dedication to its success.

Stoller has suggested six domains of needed competence for characterizing effective physician-leadership: these include technical knowledge (of operations, finance and accounting, information technology and systems, human resources, strategic planning, and legal issues in healthcare and public policy), knowledge of healthcare (reimbursement strategies, legalization and regulation, quality assessment and management), problem-solving process (around organizational strategy and project management), emotional intelligence (ability to evaluate oneself and others and to manage oneself in the context of a group), communication (leading change in groups and in individual encounters), and commitment to lifelong learning (7). The Leadership Competences questionnaire for physicians in 2002 surveyed 110 doctor leaders to find their top three competences: interpersonal skills, professional ethics and social responsibility, and financial acumen and resource management (21).

With the increasing need for medical leadership comes the need to increase leadership and management training for physicians and to better define roles and responsibility (3, 22-24).

There is an increasing will to see doctors take on more significant leadership roles in the delivery of high-quality healthcare and improve efficiency of healthcare organizations and systems. Leadership skills are essential tools for all doctors throughout their training careers (25). The aim of the training is to enhance e.g. strategy sharing skills, financial skills, organizational knowledge, networking and planning skills (13), as well as skills needed for change management (22).

In this study, we aim to answer the following questions: 1) What factors are seen as important in the medical leadership of clinical work in specialized and primary healthcare units, by doctors in training? 2) Which management skills are valued in physician leaders by doctors in training?

Materials and methods

This study was carried out during leadership and management studies of specialist training of doctors. In Finland, the specialist degree in medicine is classified as specialized postgraduate de-

gree. It can be undertaken at five university medical faculties in Finland.

To complete the specialist degree, 5 or 6 years of medical practice is required including, at minimum, 9 months of service in public health centers, theoretical courses, management studies, and successfully passing a national written exam. The national curriculum for the specialist degree includes theoretical multi-professional social and health management studies (10-30 ECTS). These studies offer the basics of organizational management and leadership, the social and healthcare system, HR management, leadership interaction and organizational communication, healthcare economy, and data administration.

Data for this study was collected in autumn 2012 and spring 2013, as part of leader-member interaction and organizational communication module of specialist degree leadership and management studies. The program of the module was based on pre-reading material, lectures (contact learning), and an essay (distance learning assignment).

Students were asked to reflect on and write an essay about their observations and experiences of leader-member interaction and communication practices in healthcare organizations. Essays were handed back to the lecturer for comments via online learning environment. Finally, every student with an approved paper received brief qualitative feedback. A written permission was obtained from the students to use their essays as research material. Although the topic for the essays was primarily people management and interpersonal skills, in addition substantial data on organizational management in general and challenges related to different operating environments also became available.

The total number of returned essays was 204 in 2012 and 22 in 2013, in total 225. All the essays were merged and then classified into two categories: papers describing communication in hospital organizations (hospital essays, $n=120$), and papers describing healthcare centers (healthcare essays, $n=105$). Finally, altogether 60 hospital essays and 60 healthcare essays were highlight for the data. In the order of arrival, every other essay was taken for the data, thus ensuring that they represented as widely as possible the different kinds of organizations and fields of specialty. The data represents both specialized and primary healthcare as well as large

and small organizations in a wide geographical area. The length of the essays varied from three to seven pages. Some of the writers of these essays had experience of working as a doctor before their specialist training and almost all had experience of several training posts during their specialist training.

The research questions were analyzed by inductive content analysis (26). The data was first read through multiple times to get an overview. In this first phase, we looked for content related to observations made by doctors in training about leadership and management in the training organization. We used phrase as the unit of analysis. Original phrases were picked out from the data word-for-word after which they were reduced, categorized and coded by keywords describing the content. There were in total 325 reduced phrases, 184 on specialized healthcare and 141 on primary healthcare. In the next phase, these phrases were categorized based on similarities and differences. Phrases with similar kind of content were grouped into sub-categories and further abstracted into main categories. The categories were coded by keywords describing their content: personal characteristics of leader, approach to employees and their work, and management skills (26, 27).

Results

In the results of this study, several different observations on the management skills and leadership of doctor leaders were highlighted by the specializing physicians. The data consisted of 325 individual phrases out of which 185 were related to medical leadership in specialized healthcare and 141 to leadership in primary healthcare.

Regarding good medical leadership and its characteristics, no differences were found in the data between specialized healthcare and primary healthcare. However, deviations were detected between different operational environments of organizations and challenges arising from these different settings. Regarding specialized healthcare in general, strong hierarchy within organizations and between professions, as well as the division of labor, were seen as challenging. According to doctors in training, these challenges made their work more difficult and affected their motivation and wellbeing at work. In primary healthcare,

more challenges arose from mastering the wide range of illnesses of patients and inhabitants of the municipality and from the complex networking nature of the work. It was seen that the ability and skills to work efficiently in a network consisted of multi-professional work, collaboration between different sectors within a municipality (social and health services, schools, prenatal clinics), and co-operation with municipal policy makers. These results have been studied elsewhere.

The framework of the results was three-fold: managing expertise, managing the work community and leader-member relationship. From the observations made by doctors in training, three main themes could be established for ensuring good medical leadership: leadership skills in managing medical expertise, people management in the work community, and interpersonal and communication skills. This framework is described in Figure 1. For each of the three main themes in Figure 1, five most important issues are listed in order of emphasis (Figure 1). Same things were emphasized in leadership of both specialized and primary healthcare.

Management of expertise

When good medical leadership of clinical work in a healthcare unit was assessed by doctors in training, clinical know-how of doctor leaders was emphasized the most; how leaders themselves were as physicians and, moreover, how these experienced senior physicians gave consultation and guidance to young specializing physicians. Part of the clinical skills of doctor leaders was also their ability to give constructive feedback on the actual patient work to the doctors in training did, as well as feedback during development discussions concerning the general progress of the young doctors. Specializing physicians wanted development discussions to concentrate on the development of their professional expertise and know-how. Leadership skills of doctor leaders in the organization were strongly linked with their clinical skills.

"My view is that in organizations consisting of doctors, also managers should be doctors so that they can understand and give support in work-related challenges. In a hospital environment managers should be clinically experienced physicians; this way they can keep up with everyday routines and have a point of view on the ever-changing challenges of this work" (Essay 35)



Figure 1. Good medical leadership assessed by doctors in training

In addition to clinical know-how, doctor leaders were expected to be persons who knew what went on in the organization and who communicated information within the organization. They were expected to have an extensive network of colleagues both within and outside the organization. Furthermore, doctor leaders were expected to have a vision on the future and ability to guide the organization in changes).

"It is the managers' task to know what goes on in the organization. Openness and sufficient communication can be expected of them as a default, as well as good rationale behind all decisions concerning the whole organization. The management style where a leader just tells things to employees without listening to their views and without giving any background for decisions is not a suitable model for managers who are leading a team of experts. Managers should share their views and plans about the future in a truthful and appropriate manner. Also, in uncertain situations and during changes in the organization managers should show boldness and openness with regards to supporting communications between employees" (Essay 12)

HR-management

What was also expected of doctor leaders was the ability to manage the work community and handle any people management related issues. Furthermore, in management of clinical work, emphasis was put on the fact that doctor leaders should take into account all employees in their unit and know what their work consists of. The most important things in the relationship between doctor leader and their employees were overall support given to employees, appreciation of professionalism and taking care of wellbeing at work. It was also seen important that the unit was managed fairly and in a just manner.

"In my unit there is an especially good leader who allows different ways of operating, but still oversees that the quality of work remains good and things get done. If there is cause to trust employees he trusts them. He also listens to my views. It is important to him that I can also have time off

during the holiday seasons even though I'm just a trainee. At work, everyone is treated equally. There are yearly development discussions where I can share my views on anything related to work and plan my further training" (Essay 52)

"Expertise and fairness are essential leadership skills. When an employee feels that he is appreciated by his manager and is treated justly and when the manager is interested in his employees, the wellbeing of the whole unit increases. It is important that the manager appreciates and values the work his employees are doing. Respect and good manners are contagious, and the manager should be an example for all. Also, all employees no matter which position they work in should be taken into account - everyone's work is valuable" (Essay 13)

Interpersonal and communication skills

Regarding the interpersonal and communication skills of doctor leaders, specializing physicians emphasized building of positive relationships based on mutual trust. A good relationship based on trust allows the doctor in training to share things from their personal life with their manager when needed. All trainees highlighted the importance of interpersonal and conversational skills of managers, as well as approachability and availability when guidance and consultation was needed. An ideal leader was seen as a senior 'father figure' who has the time and willingness to listen and guide his young colleagues. Also opposite observations had been made by doctors in training.

"My manager is interested in my wellbeing also outside work and, if needed, it is possible to flexibly arrange work so that I can handle both home and work" (Essay 52)

"Our chief physician takes care of our wellbeing and is an approachable, warm and humane person. She has a long career in clinical work and is a good colleague who I can always consult. She does not keep up levels of hierarchy just for the sake of it. From my point of view, I see it as a huge benefit that she has worked so long in our municipal health clinic and knows the organization and the people who live here. She is on our side and means well in everything she does. I like her straightforward no-nonsense attitude" (Essay 26)

"The chief physician is really not that much in contact with us employees. I've seen him about three times during the past four years in our quarterly doctors' meeting. Any e-mails he sends usually go to the heads of department, who in turn forward these e-mails to us. The division of labor between heads of department, deputy chief physicians and the chief physician is not clear, as far as I can tell. Whenever I face some problem I am often not sure whom I should notify so that it could be solved" (Essay 15)

"Working in a clinic is lonely and positive feedback is seldom received. Even negative experiences with patients cannot usually be shared with anyone during normal clinic work. In this kind of situation, it would be good to get support from manager" (Essay 12)

Discussion

Medical leadership takes many forms. Some physicians lead through local innovation, others lead through their professional bodies or through managerial involvement at various levels in the organization. Successful doctor leaders are usually experienced clinicians with good interpersonal skills. They are also strategic thinkers and visionaries who look beyond the boundaries of their own field of speciality; they exhibit passion and are prepared to take reasonable risk to achieve their goals. They know how to engage colleagues and effect change (28). What became apparent in the observations on leadership made by doctors in training was the versatile and wide experience of managers - it was respected and valued.

In their writings on medical leadership what specializing physicians emphasized the most were things that were closest to them and their daily work. The idea of good leadership was formed mainly based on personal experience from either one or several clinical training posts. As apprentices, doctors in training deemed important the interpersonal communication skills, especially social support skills, of their managers. These are also the skills they can best assess: How a leader expresses understanding and person-centeredness seems to be an important factor when evaluating the quality of leader-member relationship (29). The descriptions of medical leadership by doctors

in training were similar to descriptions of transformative leadership in healthcare organizations. Emphasis is put on communication, motivation, visioning, mutual trust and values (14, 20, 30). When assessing good medical leadership, financial know-how, knowing the organizational culture, strategic skills, ability to manage knowledge etc. were not highlighted as important (7). These skills may be too far from the everyday work of a doctor in training and would require longer time to be fairly assessed (31). The reason could also be that specializing physicians have emphasized leadership and communication practices of their unit in their essays based on the task they were given. All in all, the results of this study offer a sufficient framework for good medical leadership, adaptable also for management of experts in other fields of specialty.

In some of the essays the writers showed interest in discussing leadership and management skills in a wider context. This is a good thing as it will motivate them to take the leadership and management studies of their training seriously and, therefore, develop their own leadership skills throughout their training with their future leader position in mind. When we offer young doctors new and various opportunities to practice leadership and work as leaders we enhance their motivation to further pursue managerial positions.

The concept of medical leadership should not be limited to those in senior leadership positions. It is just as relevant to the trainee doctor on the frontline who uses leadership skills to run the ward in the absence of a consultant or to set up a quality improvement project to improve the weekend handover. A medical leader can be any leader who uses leadership skills to improve the care they provide to patients (8). There is an increased need for leadership training for both young and senior physicians (3).

The importance of the support given by senior physicians to young doctors cannot be emphasized enough. Doctor leaders receive both good and critical feedback on their management skills. It would be beneficial to develop a discussion forum where mentors and managers of doctors in training could meet and discuss the role of doctor leaders in relation to specializing physicians, and what kind of expectations and wishes young doctors have towards their managers and leadership.

Leading specializing physicians brings a new dimension to the work of senior physicians: this dimension could be called pedagogic leadership.

Acknowledgments

This study has received partial funding for one researcher from the Finnish Cultural Foundation.

References

1. Chadi N. *Medical Leadership: Doctors at the helm of change*. *McGill J Med*. 2009; 12 (19): 52-57.
2. Clark J. *Medical leadership and engagement: No longer an optional extra*. *J of Health Organ Manag*. 2012; 26(4): 437-443.
3. Martin WM, Quinn SM. *Developing the Physician Executive: From the Surgical Suite to the Executive Suite*. *Journal of Executive Education* 2007; 6(1): 21-32
4. Minvielle E. *Beyond quality management methods: Meeting the challenges of healthcare reform*. *Int J Qual Healthcare* 1997; 9: 189-192.
5. Kornacki JB, Silversin MJ. *Leading Physicians through Change: How to Achieve and Sustain Results*. American College of Physician Executives. 2000.
6. Stoller JK. *Can physicians collaborate? A review of organizational development in healthcare*. *OD Pract*. 2004; 36: 19-24.
7. Stoller JK. *Developing physician leaders: A call for action*. *J Gen Intern Med*. 2009; 24: 876-878.
8. Zhang Y-Y, Kirhi V, Moore A, Greenhalgh R. *Learning to lead*. *Student bmj* 2012; e5319.
9. Lane D, Ross V. *Defining competencies and performance indicators for physicians in medical management*. *American Journal of Preventive Medicine* 1998; 14(3): 229-236.
10. Lobas JC. *Leadership in academic medicine: Capabilities and conditions for organizational success*. *AMJ Med*. 2006; 119: 618-621.
11. Chaudry J, Jain A, MCKenzie S, Schwartz R. *Physician Leadership: The competencies of change*. *Journal of Surgical Education* 2008; 65(3): 213-220.
12. *Developing physician-leaders: Key competencies and available programs*. *Journal of Health Administration Education* 2008; 25(4): 307-328.
13. Taylor CA, Taylor JC, Stoller JK. *Exploring Leadership Competencies in Established and Aspiring Physician Leaders; An Interview-based Study*. *J Gen Intern Med*. 2008; 23(6): 748-754.
14. McAlearney AS. *Leadership development in health-care: A qualitative study*. *Journal of Organizational Behavior* 2006; 27: 967-982.
15. Quinn JF. *First and foremost, Physicians: The clinical versus managerial identities of physician leaders*. Case Western Reserve University; 2010.
16. Hall P. *Interprofessional teamwork; Professional cultures as barriers*. *Journal of Interprofessional Care* 2005; Supplement 1: 188-196.
17. Montgomery K. *Physician executives. The evolution and impact of a hybrid profession*. *Advances in Healthcare Management* 2001; 2: 215-241.
18. Clark J, Armit K. *Leadership competency for doctors: a framework*. *Leadership in Health Services* 2010; 23(2): 115-129.
19. Frank JR. *Medical leadership and effective inter-professional healthcare teams. A competency-based approach 2007*. Available at: URL [http://ambulance.nsw.gov.au/amwac/pdf/10 frank pdf](http://ambulance.nsw.gov.au/amwac/pdf/10%20frank.pdf). Accessed February 21 2008.
20. Bono JE, Judge TA. *Self-concordance at work: Toward understanding the motivational effects of transformational leaders*. *Academy of Management Journal* 2003; 46: 554-571.
21. MCKenna MK, Gartland MP, Pugno PA. *Development of physician leadership competencies. Perception of leaders, physician educators and medical student*. *The Journal of Health Administration Education* 2004; 21: 343-354.
22. Longnecker DE, Patton M, Dickler RM. *Role and responsibilities of chief medical officers in member organizations of the Association of American Medical Colleges*. *Acad Med*. 2007; 82: 258-263.
23. Viitanen E, Lehto J, Tampusi-Jarvala T, Mattila K, Virjo I, Isokoski M, et al. *Doctor-Managers as decision makers in hospitals and health centres*. *Journal of Health Organization and Management* 2006; 20: 85-93.
24. McAlearney AS, Fisher D, Heiser K. *Developing effective physician leaders: Changing cultures and transforming organizations*. *Hospital Top* 2005; 83: 11-18.
25. Warren OJ, Carnall R. *Medical leadership: Why it is important, what is required and how we develop it*. *Postgrad Med J*. 2011; 87: 27-32.

26. Krippendorff K. *Content analysis. An introduction to its methodology.* Sage Publication. Thousand Oaks. 2004.
27. Cavanagh S. *Content analysis: concepts, methods and applications,* Nurse Research 1997; 4:5-16.
28. Gillam S. *Teaching doctors in training about management and leadership.* BMJ 2011; 345.
29. Fix B, Sias PM. *Person-centered communication, leader-member exchange, and employee job satisfaction.* Communication Research Reports 2006; 23: 35-44.
30. Caldwell C, Dixon R, Floyd LA, Chaudoin J, Post J, Cheokas G. *Transformative Leadership: Achieving Unparalleled Excellence.* J Bus Ethics 2012; 109: 125-187.
31. Parvizi N, Shahaney S, Martin G, Ahmad A, Moghul M. *Instigating change: Trainee doctors' perspective.* Postgrad Med J. 2013; 89: 572-577.

Corresponding Author

Viitanen Elina
School of Health Sciences,
University of Tampere,
Tampere,
Finland,
E-mail: elina.viitanen@uta.fi

HealthMED

Home Browse Articles Editorial Board Submission Contact

HealthMED Journal

HealthMED is an Open Access print and Online Journal and an interdisciplinary publication for the general, preclinical and clinical medicine, as well as health insurance and public health. The journal is published monthly both in Print and Electronic format and presents original papers and case reports on nursing, health care, physiotherapy, physical medicine, radiology, cardiology, etc

Frequency: Monthly
Publisher: DRUNPP Sarajevo
ISSN: 1840-2291
e-ISSN: 1986-8103

Publishes issues from general, preclinical and clinical medicine, as well as health insurance and public health. The journal is published monthly both in Print and Electronic format and presents original papers and case reports on nursing, health care, physiotherapy, physical medicine, radiology, cardiology, etc.

LAST NUMBERS

INDEXED ON

HealthMED and its papers have been indexed/tracked/covered by:
EMBASE, Scopus, EMBASE, Index Copernicus, SCImago Journal and Country Rank, Genamics, Journal Seek, WorldCat, Research Gate, and Sagner Kubon OPAC, HINARI (WHO - World Health Organization), Open J-Gate, Google Scholar, British Library, Medical Journals Index (MJ) etc.

embase SJR SCImago Journal & Country Rank INDEX COPERNICUS TFW ScienceDirect ISI WorldCat

CONTACT
+387 32 817 101
info@healthmed.ba
healthmedjournal@gmail.com
Bosiljka bb, 71000 Sarajevo, Bosnia & Herzegovina

FOLLOW US
Twitter Facebook

MENU
Home
Browse Articles
Editorial Board
Submission
FAQ
Contact

HealthMED

Copyright © 2014, DRUNPP
Design: MawWEB

<http://www.healthmed.ba/>