International Journal of
Health Policy and Management

Kerman University
of Medical Sciences

Original Article

Change Theory for Accounting System Reform in Health Sector: A Case Study of Kerman University of Medical Sciences in Iran

Mohammad Hossein Mehrolhassani[1], Mozhgan Emami[2,*]

[1]Research Centre for Health Services Management, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran
[2]Research Centre for Modelling in Health, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran

ARTICLE INFO

ABSTRACT

Background: Change theories provide an opportunity for organizational managers to plan, monitor and evaluate changes using a framework which enable them, among others, to show a fast response to environmental fluctuations and to predict the changing patterns of individuals and technology. The current study aimed to explore whether the change in the public accounting system of the Iranian health sector has followed Kurt Lewin's change theory or not.
Methods: This study which adopted a mixed methodology approach, qualitative and quantitative methods, was conducted in 2012. In the first phase of the study, 41 participants using purposive sampling and in the second phase, 32 affiliated units of Kerman University of Medical Sciences (KUMS) were selected as the study sample. Also, in phase one, we used face-to-face in-depth interviews (6 participants) and the quote method (35 participants) for data collection. We used a thematic framework analysis for analyzing data. In phase two, a questionnaire with a ten-point Likert scale was designed and then, data were analyzed using descriptive indicators, principal component and factorial analyses.
Results: The results of phase one yielded a model consisting of four categories of superstructure, apparent infrastructure, hidden infrastructure and common factors. By linking all factors, totally, 12 components based on the quantitative results showed that the state of all components were not satisfactory at KUMS (5.06±2.16). Leadership and management; and technology components played the lowest and the greatest roles in implementing the accrual accounting system respectively.
Conclusion: The results showed that the unfreezing stage did not occur well and the components were immature, mainly because the emphasis was placed on superstructure components rather than the components of hidden infrastructure. The study suggests that a road map should be developed in the financial system based on Kurt Lewin's change theory and the model presented in this paper underpins the change management in any organizations.

Background

Change is a common thread that runs through all businesses regardless of size and age. Our world is changing fast and, as such, organizations must change quickly too (1) and only those that adopt the strategy in accordance with the developments and changes can survive (2). With the accelerating pace of changes and with the fast growing developments in the technological, social, and cultural contexts, successful organizations are those that not only coordinate the developments of modern society, but also foresee the track of changes in future and lead the way toward a better future (3). Hence, organizational theorists have proposed models and theories as a means of driving the change in the organization. These theories provide an opportunity for managers to plan, monitor and evaluate changes using a framework (4) which will enable them to show a fast response to environmental fluctuations and to predict the changing patterns of individuals, market, product and technology (5).

The new change approaches like Culture-Excellence model developed by Peters and Waterman and Kanter ; and Processual Approach by Pettigrew have a holistic view to organizations and their environments (6–8). These theories emphasized that change is a continuous process and is heavily influenced by culture, power and politics (9). However, in essence, Kurt Lewin's theory of change management (10) constitutes the basis of all these approaches which dates back to the 1950s and is still considered by new organizations today (1).

Lewin proposed a three stages theory of change, commonly referred to as unfreeze, move to a new level or transition (change) and refreeze (Figure 1) (5) and pointed out the actions taken by the organization (Table 1).

In recent years, public service organizations across the globe have been engaged in strategies of institutional, organizational and managerial change in order to cope with increasing demands for greater financial accountability (12). On the whole, the aim

*Corresponding author: Mozhgan Emami; Email: emami.m@kmu.ac.ir

Figure 1. 3-stage model of Kurt Lewin

Table 1. Proceedings in Kurt Lewin's model

Stages	Proceedings
Stage 1: Unfreezing	Involves preparing the organization to accept that change is necessary, which disorders the existing status and to prepare the organization successfully, it is necessary to challenge the beliefs, values, attitudes and behavior that are currently defined (1).
Stage 2: Change (Transition)	After the assurance of change acceptance by employees and dissatisfaction from the status quo, it is necessary to use the knowledge, attitude, behavior and skills of specialists to solve the problems (11) and after analyzing the current situation, new processes and structures must be placed at the macro level to lead to the desired improvements (10).
Stage 3: Refreezing	In this stage, we should be ensured that the new behavior is relatively safe from regression. No doubt, this stage often requires changes to organizational culture, norms, policies and practices (9).

of these changes is to overcome bureaucratic obstacles so that managers can use their limited resources more efficiently (11). Since information is the most important resource needed in the managing process, so, developing a comprehensive accounting information system fostered by the accruals introduction is necessary (13).

Over the last 20 years, an increasing number of governments and public sector organizations have moved to accrual based accounting and adopted private-sector-style financial statements (14). The accrual accounting system is regarded as a crucial way for successful public management performance (15). There are common goals for all countries starting accrual system in public sector such as providing evaluation possibility for managerial functions, access to useful information for resource allocation, better financial reporting, and providing a complete view about the economic effects of government (16).

The use of accrual accounting was first reported in Chili in the mid-1970s under the Pinochet regime. New Zealand was the next country to follow in 1990 and the US federal government moved to accrual based accounting in 1997, but US state and local governments are making the change now (14). Since 2000, a wave of European countries has shifted to public sector accrual accounting. These include the Northern European countries (e.g. Denmark, Finland and Sweden), the Baltic countries (e.g. Estonia, Latvia Lithuania), some central Eastern European countries as well as France, Spain and the United Kingdom (17). Similarly, outside Europe, countries like Australia, Canada, Malaysia, South Africa and Mongolia adopted the new accounting system (14). However, at present, the New Zealand and Australia among the countries are considered as the pioneers of both financial reporting and budgeting purposes (18).

In Iran, the idea of financial reforms was firstly introduced and developed by the Ministry of Health and Medical Education (MoHME) under the new financial management reform in 4 phases. The first phase included the establishment of an accrual accounting system instead of a cash one in all universities and faculties under the supervision of MoHME. This reform started in 2005 and was developed in all affiliated units (16).

There is a wealth of literature looking at Kurt Lewin's theory of change in both public and private sectors using the case study of different policies or programs. These include, among others,

implementing a guideline for care in the British NHS (19), computerizing the nursing records in the USA home care (20) and using Lewin's force field analysis in implementing a nursing information system (21). To the best of our knowledge, no study has yet reported the evolution of a public accounting system based on the change theory in the context of a developing country. Hence, the current study aimed to fill this gap by answering the following research questions:

1. What are the factors affecting the implementation of accrual accounting systems in the Iranian health sector?
2. How much are the known components involved in implementing accrual accounting system in the case study of Kerman University of Medical sciences (KUMS)?
3. Has the change in the public accounting system of the Iranian health sector followed Kurt Lewin's change theory?
4. What should be done for the successful implementation of change in the public accounting system?

Methods

The study adopted a mixed methodology incorporating both qualitative and quantitative methods conducted in the year 2012. This case study consisted of two phases including qualitative and quantitative steps, which are briefly explained below. It should be noted that the results presented in this paper are drawn from a larger project carried out on determining challenges-implementation of accrual accounting. The project had three phases including; a systematic review to examine the implementation of accrual accounting in public sector and health system (22), a qualitative study to identify the challenges in deploying the accrual accounting system of the health sector in Iran and an investigation (using quantitative methods) to implement the accrual accounting at KUMS. Therefore; we initially began the systematic review methodology (22) and successive transformative strategy and then the second, qualitative, phase of the study started by the basic framework of the systematic review. Subsequently, an evaluation questionnaire was developed according to the basic framework and the initial report of phase two and phase three was conducted concurrently with phase two and eventually, the results of the two phases were combined and shared to interpret the data. Consequently,

hidden infrastructure components were detected in quantitative phase using Principal Component and Factorial Analyses (PCA) test and were confirmed by the quantitative results. Indeed, the PCA test was used to examine the hidden factors affecting the variables. In this method, these factors allowed us to condense the number of variables in our analysis by combining several variables into one factor.

Phase one: qualitative enquiry

The current paper presents both qualitative and quantitative results to address the research questions. This phase, aimed to determine the most significant and fundamental factors affecting the change in the accounting system of the health sector. For this purpose, data collection took place at national and provincial levels. A sample of 41 participants was selected using purposive sampling (Table 2). We used face-to-face in-depth interviews (6 participants) and the quote method (35 participants). Researchers attended the meetings of experts and selected the key informants based on some criteria such as the organizational position, partnership in performance, knowledge and expertise.

An attempt was made to explore the participants' views on the factors affecting the implementation of the accrual accounting system in the health sector. A quote method was employed in addition to the interview technique due to the limited time for in-person interviews with all. In this way, we designed a questionnaire with open-ended questions based on the systematic review conducted at the initial stage of the project (22) to ask the participants to express their opinions freely. Researchers, at the meetings, tried to answer the participants' questions as much as possible and record their observations and perceptions of their expressions. To reach a more accurate understanding of the topic, in-depth interviews took place with six key experts at the national level. Face-to-face interviews were all recorded and transcribed verbatim. The minimum and maximum duration of the interviews were 30 and 115 minutes respectively.

To analyze the qualitative data, we used a thematic framework analysis that consisted of 5 stages including familiarization, developing a thematic framework, indexing and charting, summarizing and synthesizing, and finally mapping and

Table 2. The demographic information of the study sample in the first phase

The levels of data collection	Variable	Title	Frequency
National level	Gender	Male	16
		Female	0
	Place of Employment	Central Organizations of Iran Universities of Medical Sciences	15
		Ministry of Health and Medical Education	1
	Job Title	Financial managers	7
		Financial experts	8
		Heads of the budget department	1
	Field of Study	Accounting	10
		Financial management	3
		Public management	1
		Business management	1
		Health services management	1
Provincial level	Gender	Male	20
		Female	5
	Place of employment	Health centers	2
		Health networks	4
		Faculties	3
		Hospitals	1
		The central organization of Kerman University of Medical Sciences	8
		Assistants	1
		Missing	6
	Job Title	Financial managers	11
		Financial experts	7
		Heads of the budget department	2
		Head of the organization	1
		Missing	4
	Field of Study	Accounting	14
		Economics	4
		Medical	3
		Experimental Sciences	1
		Missing	3

Citation: Mehrolhassani MH, Emami M. Change theory for accounting system reform in health sector: a case study of Kerman University of Medical Sciences in Iran. *International Journal of Health Policy and Management* 2013; 1: 279–285.

interpretation (23). We employed the Maxqda software (Verbi Software, Marburg, Germany) to analyze the data.

Phase two: quantitative enquiry

In the second phase, the researchers quantitatively evaluated and ranked the factors identified in the qualitative results. A case study was conducted to evaluate the implementation of the accrual accounting at KUMS. The case of KUMS was selected because of the location of the host university and researchers. In order to make field observation and to evaluate performance, 32 units were examined by internal evaluators (accrual system users) and external evaluators (university staff and researchers) through census sampling. Accordingly, 92 questionnaires were completed.

The Iranian public structure is centralized and excessive bureaucratic and public organizations and executive agencies use public budgets and have therefore the limited power in the various management levels. Kerman province is located in southeastern Iran and it embraces more than 11% of the area of Iran, this province is considered as one of the most important and historical provinces of the country. According to Iran Statistical Center (ISC), its population was equal to 2,938,988 in 2011(24). KUMS is the most important university among the four universities of medical sciences in the province and is considered as the eighth largest university in Iran. About 7 cities with a population of 1,507,845 are covered by the KUMS. It should be noted that, the educational system in the health sector of Iran is integrated with the service system (25).

In the second phase, a questionnaire with a ten-point Likert scale was designed using the components identified in the qualitative phase. The judging criteria for this phase were as follows: 1–3: undesirable (A), 4–7: average (B), 8–10: desirable (C). The questionnaire was composed of seven components that the first three questions were devoted to the component of management and leadership, questions 4–6 to followers (a group of employees appointed by the chief executive officer to identify organizational barriers and determine and implement rapid-cycle changes designed to improve them), questions 7–12 to structure, questions 13–19 to manpower, questions 20–25 to work processes, questions 26–30 to knowledge, and questions 31–34 to technology components. The validity of the questionnaire was confirmed according to researchers' group meetings held to regulate the results of the systematic review, qualitative enquiry and preliminary report of interviews. The reliability was also evaluated using test-retest and it was confirmed with the correlation coefficient of 0.82 with a significant level of 0.000 ($P<0.001$) and 0.89 alpha. We employed observation and evaluated the performance of 32 affiliated units of KUMS (hospitals and clinics, Emergency Medical Services, Faculties and deputies). Data were analyzed by SPSS 19 (SPSS Inc., Chicago, IL, USA) using descriptive indicators.

Study limitation

Although the researchers revealed the hidden infrastructure factors in the qualitative phase, they were not able to measure it in the stage two of the research. Hence, identifying and scoring the factors requires further studies with a specific questionnaire to measure the understanding, insight, motivation and value.

Results

This paper was set to determine and evaluate the most influential factors on change in the public accounting system. The results presented are in two sections, namely the qualitative and quantitative results.

Qualitative results

In this phase, the research participants pointed to several factors which had an impact on the implementation. Four main themes in relation to the elements were extracted. They were superstructure, apparent infrastructure, hidden infrastructure and common factors linking between all of the factors. As can be seen from the components of the model in Table 3, interactions between the various components were also taken into consideration.

In this phase of the study, researchers tried to categorize and communicate between the components as illustrated in Figure 2.

The first category was superstructure factors which were directly involved in implementing the system and were considered as the organizational factors. These factors include the components of the organizational structure, manpower and work processes.

Components of leadership and management, followers (change team) and environment were identified as apparent infrastructure factors due to influence, exert power and dominance. Accordingly, all the necessary changes in superstructure and hidden infrastructure factors are conducted by them.

The third category was named hidden infrastructure factors. Based on the factors, we found that if there is no understanding, commitment, motivation, insight and belief in the implementation of an organizational reform, changes made will not be sustainable in the superstructure factors.

Components of knowledge and technology were among the factors which helped to realize the hidden infrastructure factors. To put it simply, with the proper knowledge and technology; change team components will be able to apply the necessary changes in hidden infrastructure factors and subsequently, superstructure factors. Therefore, these factors were considered as common factors linking between all of the factors and were the robust components to change in all the factors and layers.

Quantitative results

In this phase, the researchers evaluated the components of the qualitative results as a case study at KUMS (Table 3). It should be noted that the situation and its difference between the subordinate units of the university were evaluated by using the evaluation questionnaire. Thus, as the environment components like legal, political and economic were not measurable within the university, they were extracted from the questionnaire. On the other hand, although the researchers revealed the hidden infrastructure factors in the qualitative phase, they were not able to measure it in the quantitative phase. In this phase, it was specified that the internal evaluators, compared to external evaluators, gave the higher scores to the components. So, the researchers classified the average of scores into two categories of internal and external system evaluation. Therefore, internal evaluators specified that, technology and followers components were the most and least involved in implementing the new accounting system at the university respectively. However, regarding the external evaluators' comments, the leadership and management component achieved the least point and had the poorest role. It should be noted that in both external and internal

Table 3. Factors influencing the implementation of accrual accounting system at KUMS

Items		Internal evaluation		External evaluation		A total of two evaluation		Optimal score		
		Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation	C	8	A
Superstructure Factors	Organizational Structure	5.29	2.38	4.71	1.93	5.00	2.15			B2
	Manpower	4.98	2.26	4.51	1.99	4.74	2.12			B1
	Work Processes	6.35	2.19	5.03	2.05	5.69	2.12			B2
	Total	5.54	2.27	4.75	1.99	5.14	2.13			**B2**
Apparent Infrastructure Factors	Management and Leadership	5.23	2.56	3.46	2.25	4.34	2.40			B1
	Followers	4.94	2.56	4.15	2.10	4.54	2.33			B1
	Total	5.08	2.56	3.80	2.17	4.44	2.36			**B1**
Common Factors Linking between all of the Factors	Knowledge	5.61	2.21	4.43	1.98	5.02	2.09			B2
	Technology	6.61	1.92	5.58	1.96	6.09	1.94			B3
	Total	6.11	2.06	5.00	1.97	5.55	2.01			**B2**

evaluation, technology was the most influential in comparison to other components. Despite the differences in the scores, the effectiveness of all components was at the lower-middle position except for the leadership and management components (according to the views of the external evaluators, it was at an undesirable situation) and work processes and technology (they were in the upper-middle position in internal evaluation).

To examine and see hidden factors influencing other components, factor analysis test was conducted. At this stage, the index of Kaiser-Meyer was greater than 0.6 (KMO= 0.86) showing that, there was adequate communication and correlation between the components (Table 4).

According to Table 5, only one main component included 68.162% of the total variance in the analysis.

In PCA test, we observed that a principal factor affected the superstructure, apparent infrastructure components and common factors linking between all of the factors. According to the results of the qualitative phase, the principal factor must be the hidden infrastructure components. In fact, all components influenced this factor and were evaluated in the lower-middle position while

Table 4. The correlation rate between the components in evaluating the performance of subordinate units of the university

KMO and Bartlett's Test	
Kaiser–Meyer index	0.860
P	0.000

Table 5. The variance is defined by the factors influencing performance.

| Main Factor	Variance	
	Percent of the variance defined	Cumulative percentage of variance
Factor 1	68.162	68.162

influencing it.

Discussion and conclusion

The study was based on Kurt Lewin's model and was designed in two phases. Initially, qualitative phase was performed and determined the model of change components and then, based on the components identified, the status was quantitatively evaluated at KUMS.

In our study, the status of all the factors involved in implementing the accrual accounting system at the university administrative units was in the lower-middle position with an average of 4.82 (4.82±1.63). Meanwhile, superstructure factors, apparent infrastructure factors and common factors linking between all of the factors got scores of 5.14±2.13, 4.44±2.36 and 5.55±2.01 respectively.

Given the most important measures listed in three stages of Kurt Lewin's model (9,12,21,26,27), we contend that unfreezing stage starts with changes in the apparent infrastructure factors that without a doubt, the changes in apparent infrastructure factors can lead to change hidden infrastructure and superstructure factors in change stage and if the changes in the hidden infrastructure and superstructure factors are coordinated and integrated by the apparent infrastructure factors, the hidden infrastructure factors will stabilize the changes in refreezing stage. But this process did not happen in our study. Knowledge and technology components played an essential role to change, and created a balance between all components and were identified as common factors linking between all the factors.
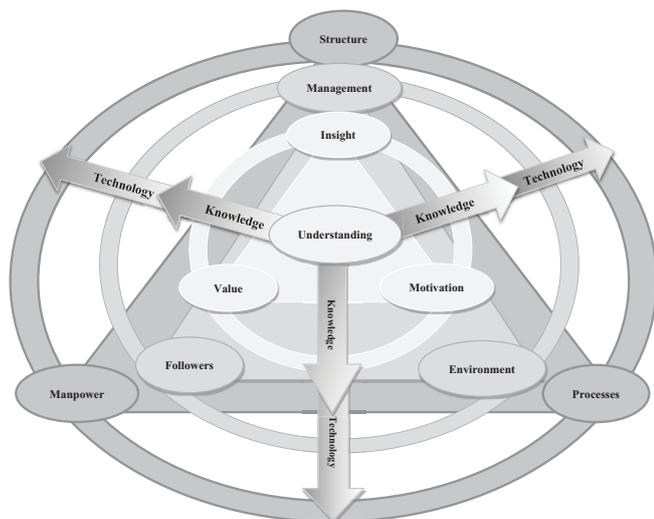
Figure 2. Change factors in the deployment of financial system and accrual accounting in health sector

The case study at KUMS indicated that the impact of all factors on the implementation was assessed at the lower-middle position. In fact, regulatory requirements and upstream instructions, as the environmental factors, have prompted the reform of the university accounting system. But this change has affected the superstructure factors, in turn influencing the hidden infrastructure. So, according to the change theory, unfreezing stage is not performed well. Therefore; it should be noticed that the leadership and management and followers did not work well because of the lack of knowledge and undoubtedly did not apply the necessary changes in the change process and refreezing stage and moved to the change solely because of the technology which was presented as an external and universal factor at universities. In other words, due to stress of environmental changes and managerial instability in organization, stages of change did not occur properly and promptly moved from melting point to freezing point and the freezing stage was not in a regular cycle.

We hypothesize that governance structure and health scope context in Iran have weakened the management and leadership and followers performance. Because the health sector is a public system and urges the public benefit, and there is no interest for profitability. Hence, it does not claim full financial reports. On the other hand, the leadership style of the government is from top to the bottom (25). So, the change was affected more by environmental factors such as the upstream directives and requirements than other apparent infrastructure factors. Another important factor is the practitioner rule, namely, the administrators opinions which are dominated by the views of the doctors and the so-called, the doctors are the decision makers in the health system (25) and because they do not use the accounting information and solely focus on the income and expenditure, thus, management commitment has dropped to implement the change and the necessity of using accrual accounting system is not felt in this section. Of course without a doubt, the reasons mentioned in other countries will vary according to the political situation.

The study concludes that to successfully implement the change, the following requirements are essential: identifying issues, making a good strategy, developing action plans, defining appropriate programs, communicating properly, participating in the action, supporting management and employees, monitoring and evaluating clearly in the entire process. As such, selecting an appropriate change model will help the process while professional development and teamwork are the most important prerequisites for succeeding the change (19,21). The study suggests that a road map should be developed in the financial system based on Kurt Lewin's change theory and the model presented in this paper undepins the change management in any organizations.

Acknowledgments

Ethical issues

This study was approved by the ethics committee of KUMS.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

MHM collected the data, interpreted the data, analyzed the records, drafted the manuscript and supervised the research process. ME collected the data, interpreted the data and analyzed the records and participated in manuscript writing.

References

1. Devos RM. Lewin's Change Management Model: Understanding the three Stages of Change [internet]. Available from: http://www.mindtools.com/pages/article/newPPM_94.htm
2. Alvesson M, Sveningsson S. *Changing Organizational Culture: Cultural Change Work in Progress*. London, New York: Routledge; 2008.
3. Todnem R. Organizational change management: a critical review. *Journal of Change Management* 2005; 5: 369–80.
4. Vogel I. Report of Review of the Use of Theory of Change in International Development. The UK Department for International Development (DFID); 2012. p. 1-83.
5. Van Oosten EB. Intentional change theory at the organizational level: a case study. *Journal of Management Development* 2006; 25: 707–17.
6. Peters T, Waterman RH. *In Search of Excellence: Lessons from America's Best-Run Companies*. London: Harper and Row; 1982.
7. Kanter RM. *When Giants Learn to Dance: Mastering the Challenges of Strategy, Management and Careers in the 1990s*. London: Unwin; 1989.
8. Pettigrew AM. *The Politics of Organizational Decision Making*. London: Tavistock; 1973.
9. Burnes B. Kurt Lewin and the planned approach to change: a re-appraisal. *Journal of Management Studies* 2004; 41: 977–1002.
10. Kaminski J. Theory applied to informatics-Lewin's change theory. *Canadian Journal of Nursing Informatics* [serial on the internet] 2011 Mar [cited 2013 Aug 12]; 6: [about 3 p.]. Available from: http://cjni.net/journal/?p=1210
11. Sligo F. Managing Change. New Zealand General Management Handbook, n.d [internet]. Available from: http://www.massey.ac.nz/massey/fms/Colleges/College%20of%20Business/Communication%20and%20Journalism/Staff/Staff%20research%20files/FSligo/Managing%20Change.pdf
12. Kritsonis A. Comparison of change theories. *International Journal of Management, Business and Administration* 2005; 8: 1–7.
13. Eriotis N, Stamatiadis F, Vasiliou D. Assessing accrual accounting reform in Greek public hospitals: an empirical investigation. *International Journal of Economic Sciences and Applied Research* 2011; 4: 153–84.
14. Wynne A. Is the move to accrual base accounting a real priority for public sector accounting? [internet]. Available from: http://www2.accaglobal.com/doc/publicsector/ps_doc_009.pdf
15. Vasicek D, Roje G. Accounting system in Croatian public healthcare organizations: an empirical analysis. *Theoretical and Applied Economics* 2010; 6: 37–58.
16. Abolhalaj M, Ramezanian M, Bastani P. Accrual Accounting Accomplishments in Iranian Universities of Medical Sciences: A Mixed Method Study. *Middle-East Journal of Scientific Research* 2012; 12: 294–300.
17. CESIFO DICE. The Accrual Accounting in the Public Sector [internet]. 2007. Available from: http://www.cesifo-group.de/ifoHome/facts/DICE/Public-Sector/Public-Finance/Public-Expenditures/dicereport307-db1/fileBinary/dicereport307-db1.pdf
18. Bastani P, Abolhalaj M, Molania Jelodar H, Ramezanian M. Role of Accrual Accounting in Report Transparency and Accountability Promotion in Iranian Public Health Sector. *Middle-East Journal of Scientific Research* 2012; 12: 1097–101.
19. Christensen T, Christensen M. The implementation of a guideline of care for patients with a Sengstaken-Blakemore tube in situ in a general intensive care unit using transitional change theory. *Intensive Crit Care Nurs* 2007; 23: 234–42.
20. Geraci EP. Computers in home care application of change theory. *Compu Nurs* 1997; 15: 199–203.
21. Bozak MG. Using Lewin's force field analysis in implementing a nursing information system. *Comput Inform Nurs* 2003; 21: 80–5.

22. Mehrolhasani MH, Abolhalaj M, Nekoei Moghadam M, Dehnavieh R, Emami M. [Systematic review of examining the implementation of accrual accounting in public sector and health system: challenges and solutions]. *Health Information Management* 2013; 10: 33.

23. Ritiche J, Spencer L. Qualitative data analysis for applied policy research. In: Bryman A, Burgess RG, editors. *Analyzing qualitative data*. London: Routledge; 1994. p. 1–17.

24. The President's Office Deputy of Strategic Planning and Control Statistical Center of Iran. National Population and Housing Census [internet]. 2011. Available from: http://iran.unfpa.org/Documents/Census2011/2011%20Census%20Selected%20Results%20-%20Eng.pdf

25. Khayatzadeh-Mahani A, Fotaki M, Harvey G. Priority setting and implementation in a centralized health system: a case study of Kerman province in Iran. *Health Policy Plan* 2013; 28: 480–94.

26. Breese R, Eyre G, Cogill P. Change Management-Practising what we Teach: Issues in Engaging International Students in Learning, Teaching and Assessment. *Student Engagement and Experience Journal* 2012; 1: 1–14.

27. McGarry D, Cashin A, Fowler C. Child and adolescent psychiatric nursing and the "plastic man": Reflections on the implementation of change drawing insights from Lewin's theory of planned change. *Contem Nurse* 2012; 41: 263–70.