

Access this article online
Quick Response Code:

Website: www.jehp.net
DOI: 10.4103/jehp.jehp_983_21

Exploration challenges of the implementers of Iran's transformational innovation plan in medical education

Mohammad Hasan Keshavarzi¹, Javad Kojuri¹, Habibolah Rezaei²,
Ali Reza Safarpour³

Abstract:

BACKGROUND: The Health System Reform Plan, especially in medical education, has undoubtedly caused changes in the university. The continuation of this project requires recognizing the challenges confronted by those in charge of its implementation. This study aimed to explore the challenges of the implementers of the Transformation and Innovation Plan in Medical Education in the universities of Macroregion 5.

MATERIALS AND METHODS: The qualitative research was conducted using the content analysis method. Semi-structured interviews with health and medical education managers were used to collect information. Participants were 11 educational leaders of universities who were selected by purposeful sampling. Data collection continued until data saturation was reached. Data analysis was performed continuously and simultaneously with data collection. The Graneheim and Lundman methods were used to analyze the data.

RESULTS: From 11 interviews, one theme, five categories, and 12 subclasses were obtained. Five categories include lack of proper groundwork, weak leadership, structural problems, inability to fund, and inadequate monitoring.

CONCLUSION: Innovation and transformation in medical education are one of the critical missions and admirable actions of the Ministry of Health in the field of education, but a review of this plan can, in addition to identifying shortcomings and problems, pave the way for success, and progress in future programs.

Keywords:

Education, medical, organizational innovation

Introduction

A majority of the society emphasizes the necessity of reforms in the health system, and probably, the numerous intermittent and unsuccessful reforms in the health system are the result of such public demand. The emphasis on the need to transform a health system is not restricted to our country, most countries are changing, completing, or reforming their health

system.^[1, 2] The main mission of the health system is to improve the level of health and respond to the needs of the people and society.^[3] In general, a one percent increase in education and community health infrastructure would raise GDP by 0.06 percent.^[4] However, changes in human societies have changed the attitudes, values, and expectations of human beings, and as a result, have affected the tasks of the higher education system. The university has been responsible for realizing the national development ideals, which causes the

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: Keshavarzi MH, Kojuri J, Rezaei H, Safarpour AR. Exploration challenges of the implementers of Iran's transformational innovation plan in medical education. *J Edu Health Promot* 2022;11:161.

¹Clinical Education
Research Center, Shiraz
University of Medical
Sciences, Shiraz, Iran,
²Cellular and Molecular
Research Center, Yasuj
University of Medical
Sciences, Yasuj, Iran,
³Gastroenterohepatology
Research Center, Shiraz
University of Medical
Sciences, Shiraz, Iran

Address for correspondence:

Dr. Ali Reza Safarpour,
Gastroenterohepatology
Research Center, Shiraz
University of Medical
Sciences, Shiraz, Iran.
E-mail: safarpourar@
gmail.com

Received: 04-07-2021
Accepted: 26-08-2021
Published: 11-06-2022

university to dynamize its pillars under the development programs.^[5]

Therefore, the idea of change in the higher education system is a fluid, expandable, and complex concept that can be reviewed and developed by rethinking the internal and external forces affecting higher education and the experiences resulting from the implementation of the transformation and innovation plan.^[6]

May 6, 2014, was a turning point in the history of the Ministry of Health and Medical Education of Iran. On this date, Iran's Health Transformation Innovation Plan was approved by the 11th government and supported by the president. The transformation plan included the areas of treatment, health, and education. The most important parts of this plan are as follows:

The "TIP in Medical Education" has been developed in the form of 12 operational packages, as named: foresight and scientific authority in medical education, moving toward the third generation universities, land use planning, mission orientation, decentralization, and improving the ability of universities, development of virtual education in medical sciences, responsive and equity-oriented education, development of medical education infrastructure, development of health higher education programs, promotion of assessment and tests, internationalization of medical education, promotion of professional ethics, promotion of testing and assessment of medical sciences, accreditation of institutions and educational hospitals.

These packages have been designed with a futuristic and innovative view to the general health policies, focusing on the higher education system outlined by the Supreme Leader and gaining scientific authority in the region.^[7]

Implementing the TIP in Medical Education could probably be considered a paradigm shift in higher health education. On the same ground, several issues were raised with this plan, all of which require structural reinforcement of the higher health education system in a creative way.^[8]

However, the health transformation plan, like any other plan, has faced problems and according to experts, its planning has strengths and weaknesses.^[2,9] As per our review of literature, so far the bulk of research on the Health Transformation Plan has been done in the treatment and health area; however, no research has been particularly done on medical education and its challenges. Therefore, the present research was conducted to explain the challenges of the executors of the Transformation and Innovation in Plan in Medical Education in the universities of the Macroregion 5

including Bandar Abbas, Bushehr, Fasa, Grash, Jahrom, Laar, Shiraz, Yasuj, in the implementation of this program.

Materials and Methods

Study design and setting

This research was a qualitative study and used a content analysis method. Content analysis is a method of analyzing text, speech, or visual messages in which raw data are inferred, summarized, and categorized. In conventional content analysis, classes and their names are derived from the text of the data.^[10]

Study participants and sampling

Participants in this study were entered into the research using purposeful sampling. This study was conducted with the participation of the directors of the medical universities in the Macroregion 5 engaged in the implementation of the TIP in Medical Education, including Shiraz, Jahrom, Gerash, Lar, Fasa, Bandar Abbas, Bushehr, and Yasuj [Table 1]. The criterion for selecting the officials of the Health Transformation Plan in each university was their desire to participate in the research.

Data collection tool and technique

The interviews are conducted semi-structured using cyberspace and through Adobe Connect software and face to face, each lasting 45–55 min. The interviews continued until data saturation was reached, i.e., when new data were not inferred from their texts. Participants' voices were recorded.

Table 1: Demographic characteristics of the participants

Gender	Education	Place (macroregion 5)	Academic rank
Male	PhD	Bushehr University of Medical Education	Professor
Female	PhD	Bandar Abbas University of Medical Education	Assistant professor
Male	PhD	Jahrom University of Medical Education	Assistant professor
Male	PhD	Fasa University of Medical Education	Assistant professor
Female	PhD	Yasuj University of Medical Education	Assistant professor
Female	MSC	Grash University of Medical Education	Educator
Female	PhD	Laar University of Medical Education	Assistant professor
Male	PhD	Shiraz University of Medical Education	Assistant professor
Male	PhD	Shiraz University of Medical Education	Assistant professor
Male	MD	Shiraz University of Medical Education	Nonfaculty
Female	MSC	Shiraz University of Medical Education	Nonfaculty

In total, 11 interviews were conducted. The interview questions included the participants' experiences and the problems while implementing the Health Transformation and Innovation in Plan Medical Education. Previously, the interviewer was informed through an official communication to the directors of the Plan in the universities about the meeting's time, objective, and agenda. The researcher first asked two questions: "Please explain your experience of implementing the transformation plan?," "What problems did you face during this period to implement this program?," and clarified the questions by asking "Can you give an example?," "Can you explain more?." The interview continued and finally, deeper questions were asked based on the circumstances. The interview was conducted by the Secretary of the TIP and assisted by an expert staff in charge. The analysis was performed after the interview and verbatim transcription of research data.

Data analysis

The Graneheim and Lundman methods analyzed the data.^[10,11] Like other qualitative research, data collection and analysis were performed simultaneously in this study. For this purpose, first, the recorded and the field notes were transcript into the word files. After being reviewed several times, the texts of the interviews were broken down into constituent meaning units and codes. Then, the codes were re-read to be replaced based on semantic similarity in the subclasses and finally into the categories. The researcher did his best not interfere with his assumptions in the data analysis process.

Guba and Lincoln criteria were used to evaluate the data's accuracy (i.e. rigor), including credibility, dependability, confirmability, and transferability.^[12]

Seeking credibility, the researchers themselves have been responsible for some of the packages in the Health Transformation Plan during this period and have been aware of the problems and opportunities of the plan. Also while doing the present research, peer check and member check were used for consulting purposes regarding the obtained codes and classes, and their opinions were sometimes applied. To determine the confirmability of the findings, all activities were recorded and reported. For transferability, the results were shared with two faculty members out of the study who have had similar positions to the participants.

Ethical consideration

The principle of confidentiality and confidentiality was observed at all stages of the research. The Ethics Committee approved the study of Shiraz University of Medical Sciences (Approval ID: IR. SUMS. REC.1399.1160).

Results

From the set of 11 interviews, one theme, five classes, and 12 subcategories were obtained [Table 2].

Executive barriers

Lack of proper groundwork

This class includes two subcategories: Absence of cooperation spirit and looking down at the Health Transformation Plan.

Absence of cooperation spirit

Collaboration and participation in joint activities lead to synergy and success. The sense of competition between universities and the lack of proper communication between them has led to the separation and distance among them. One of the participants stated:

"During this period, what seems to be the case is that this empathy has not been formed between the universities. Communications and interactions between the universities are not good. Now, the job category at University A for example does not know the similar job title at other universities, so this is not good at all. How do they want to get to know each other are potential and capacity and work together and have joint activities?"

Looking down at the health transformation plan

The inattention to the issue of medical education versus the treatment sector by the administrators and university officials, according to the participants, has caused the education sector not to be among the priorities of the main activities of the administrators. In this regard, one of them said:

"My many years of experience in the field of treatment and even medical education have proven this to me. There is so much emphasis on treatment so that the priority is given to curative matters, no attention is paid to education or it is not a priority for university officials.

Table 2: Theme, classes, and sub-categories

Theme	Classes	Sub-categories
Executive barriers	Lack of proper groundwork	Absence of cooperation spirit
		Looking down at the health transformation plan
	Weak leadership	Distrust among universities
		Lack of appropriate incentives
		Managerial instability
	Structural problems	Mismatching of some packages with the university type
		Lack of clear roadmap
		Lack of capable staff
		Inability to fund
	Inadequate monitoring	Insufficient specialized budget
		Legal problems in payment
		Disregarding obligations
		Inefficiency of some packages

Unfortunately, education is among priorities. If there is a budget, manpower, or equipment, the priority is treatment, not education."

Weak leadership

This category includes three subclasses: "distrust among universities," "lack of appropriate incentives," and "managerial instability."

Distrust among universities

If there is no compatibility, acceptance of ideas, and respect in the inter-university relations, it will undoubtedly cause a lack of common understanding of programs and activities among them and increase the insecurity and conflicts between them. On the same ground and one of the participants stated:

"Unfortunately, universities in the whole zone look at each other as competitors and this view has not been corrected. Maybe no one could solve this issue. Each of them thinks that they are losing their position or they must be ranked top in a certain field or mission and this has led to an increase of mistrust between them."

Lack of appropriate incentives

Management systems are always looking for incentives to motivate their employees to make their staff encouraged to do their activities. One of the participants stated:

"These packages take a lot of energy. The faculty needs motivation. What motivates the faculty member to keep doing in the packages when there neither payment nor the chance of promotion? 25 hundredths are not worthy enough to make faculty members satisfied to report continuously contribute in meetings. Indeed, they prefer to do their professional activity until to spend time on packages."

Managerial instability

Managerial stability leads to the experience of managers and employees and the transfer of experiences to each other. In this way, the problems and obstacles ahead and in the future can be identified and solutions can be proposed. One of the participants stated:

"You plan a lot, you train people, and you form a virtual group. After a while, it is easy to say that someone has changed and someone else has been replaced. Well, this in itself imposes a lot of costs on the system. When someone new is recruited you need to again justify, teach, coordinate, and everything will change.

This issue has happened several times, and unfortunately, this issue did not end at the level of only the package managers. Just take a look. Deputy of education which is an executor has had many changes; this also has

happened at the level of the university dean. This has a bad effect on the program process."

Structural problems

This category included three sub-classes namely, mismatching of some packages with the university type, lack of clear roadmap, and lack of capable experts.

Mismatching of some packages with the university type

Packages of TIP in Medical Education have been drafted in a similar way in both small and large universities. This has left small universities with no hope of success and moving in the direction of transformation. As one of the participants asserted:

"Some packages are not feasible at Type II and Type III universities. Just look at Foresight and scientific authority in medical education Package, Internationalization Package, Third Generation University Package... These are for Type I universities where there is a plethora of faculty members, facilities, and equipment. Our small universities do not have that capacity. We do not have the necessary infrastructure at all."

Lack of clear roadmap

Lack of planning, strategic management, and operational plans in activities has led to the inability to plan coherently and codified in the transformation plan. One of them stated:

"We have not yet reached an agreement on concepts and indicators. We have a package that still has no agreement on its implication with the ministry itself. We still do not know what is meant by scientific authority. We do not know what we are supposed to do and what our duties are."

Lack of capable staff

Many Transformation Plan officials expressed dissatisfaction with the lack of human resources in the packages and sometimes had to carry out their activities in person without having an expert assistant, despite their daily tasks and activities. One of the participants stated:

"We do not have staff in many packages right now. The faculty member is working alone. He has to attend meetings, type reports, write and be accountable to the district secretariat. Well, they may do such activities in a short time, but in the end, it destroys the quality of work.

Inability to fund

This category includes two classes: "Insufficient specialized budget" and "Legal problems in payment."

Insufficient specialized budget

Appropriate credits and budgets will lead to universities' quantitative and qualitative growth. Due to the existence

of different packages in the Health Transformation and Innovation Plan in Medical Education needs an appropriate budget to achieve the goals. One of the participants stated:

"It was obvious that good credits were provided for the treatment, but we got a license to establish and set up a faculty, but the cost of establishing the faculty was not provided. Although we received this promise from the Deputy Education of the Minister, the support discontinued and we have to either invest ourselves or turn to other people."

Legal problems in payment

Structural problems in paying for staff working in transformation and innovation packages have sometimes made it difficult to pay them. One of the participants stated:

"Since 2016, there has been a problem with payment. It was decided to approve and authorize a style manual for the Macroregion 5. Now, some universities do not have any payment to anyone. Well, who wants to solve these issues?"

Inadequate monitoring

This category includes two subclasses, "disregarding obligations" and "inefficiency of some packages."

Disregarding obligations

Adherence to commitments will move the way forward and the growth of programs. Undoubtedly, noncompliance with the commitments will lead to chaos in the activities. One of the participants pinpointed:

"We agreed with some person in charge of the package to define a mega project for the entire the Macroregion 5, but nothing happened and it was archived as a matter of words and meetings. It may have been a good start, but over time these commitments eroded and were just executed as much as some forms and reports and finally, everyone played their instrument."

Inefficiency of some packages

Despite the activities they have undertaken, some of the packages did not have an acceptable performance during the implementation of the plan. One of the participants noted:

"If you observe some of the packages at the university, you will see that during these few years, they did not take a single step in the implementation of the program. If they did anything, it was their usual routine work at the university that they reported, and unfortunately, no monitoring has been made."

Discussion

This study aimed to explain the challenges of executing the TIP in Medical Education from the perspective of the executors and officials involved in the universities of the Macroregion 5. The results showed that executive barriers include: Lack of proper groundwork, weak leadership, structural problems, inability to fund, and inadequate monitoring. The way to accelerate and improve the programs of the transformation packages is to create a solution to solve these obstacles and problems.

In this regard, Arasteh *et al.* (2017), in a study entitled, "The Pathology of TIP in Medical Education "A Qualitative Study," identified nine main limitations, namely packages implementation harms, structural harms, policy harms, environmental harms, managerial harms, motivational harms, harms of the accordance of capability and occupation, and cultural harms. A significant share of these limitations was related to executive problems at the university, Macroregion, and motivational levels. The least reported limitations were related to managerial destruction.^[13]

In another study by Jokar *et al.* at Isfahan University of Medical Sciences, the authors investigated the implementation procedure of Innovative medical education transformation, which includes failure to create and develop common terminology, lack of common understanding of a comprehensive approach to successful implementation, disagreement on how measuring success, imbalance in the use of internal and external motivations, and the determinant group were key performance indicators.^[14]

Lack of proper groundwork to implement any plan in the organization will eventually lead to problems. Undoubtedly, to succeed in implementing any organizational change, managers and staff, both administrative and operational, must be aware of the importance of the plan and its benefits and be justified. According to the participants, the lack of a proper platform in the medical education transformation plan eventually led to problems such as looking down the transformation plan and lack of understanding of the importance of the plan and ultimately reduced cooperation and participation in the long run. Jafarpour (2017) in a study entitled, "Pathology of Working Group in the National Iranian Organizations" obtained 48 indicators as limitations in the path of working group realization, such as "lack of performance appraisal system," "lack of teamwork training to members," "insufficient knowledge of the working environment," "Existence of unresolved conflicts in the group" and "unmeasurable goals," were listed as the most important harms and "Loyalty of group members and leader to each other "," Existence of formal

and uncomfortable atmosphere between members “and” Lack of trust among group members and leader were identified as the least significant harms.^[15]

One of the barriers highlighted by the participants is the weakness of leadership, lack of which leads to fragmentation, failure to utilize potential capacities and opportunities, and wasted energy. Influential leaders can make a big impact on their collection. These people can give extra energy to activities and create unity and integrity in the organization. Successful leaders can play an important role in motivating and engaging employees. Finally, the lack of effective leadership has caused discord and island activity in each of the universities and packages and has created an atmosphere of mistrust among those involved in implementing the reform packages. Among the problems caused by weak leadership is managerial instability. Many managers of reform packages are changed easily throughout the year and move around. This has had a significant impact on the decline of the transformation and innovation plan. Changing managers very fast and instability can result in loss of managerial effectiveness.^[16]

Other subcategories include a lack of incentives. To implement the transformation and innovation plan, incentives should be provided for staff and faculty members. Otherwise, employees will have no incentive to continue working. Farokhi *et al.* stated the lack of clear regulations in determining incentive mechanisms as challenges for the organization.^[17]

Lack of a clear agenda is one of the problems mentioned in the transformation plan. This seems to be due to the lack of proper understanding of the package's mission and the lack of justification for its executors to carry it out. Eventually, the haste and inexperience in implementing the plan would cause the descend of the transformation plan packages and its failure. The results of this study are in line with the study of Alidadi *et al.* (2017) entitled, “opportunities and challenges of the Ministry of Health and Medical Education in implementing reforms in the health system.”^[18]

One of the structural problems of the transformation plan was the lack of capable expert training. Since a large number of packages were active in the TIP in Medical Education, universities needed to employ at least one person as a manager and one person as an informed expert, which was not achieved in many universities due to lack of staff, and this creates an additional burden on managers and thus increased the workload and in the long frustration and dissatisfaction was explicitly apparent. In this regard, the study of Khalajinia and Gaeen (2018) has also concluded similar findings.^[19]

The common intersection point of the challenges of the TIP in Medical Education was in terms of funding. Lack of funding slowed down the process of planning and implementing the transformation plan which is consistent with the study of Khalajinia and Gaeen and Karimian and Yahyavi.^[19,20, 21]

It seems that the financial problem is an essential issue in many projects. Financial problems will ultimately cause dissatisfaction among those involved in the transformation plan and reduce their motivation to participate and cooperate.

Limitation and recommendation

In terms of the interview, cyberspace was used due to the long distance between the cities, and it may not have been possible to conduct a good quality interview. In addition, we could not carry out a complete member checking as we did not have access to participants easily.

For future research, suggest constructing the same research in other contexts and comparing the result. In addition, the challenges of each package considered separately.

Conclusion

Given that any program and project, despite being planned and although having benefits and achievements, would face challenges and obstacles that will lead to the slowness and complete cessation of the plan and eventually frustrates the staff and executive team, this study was conducted to identify barriers in the direction of appropriate policy-making and strategic planning to solve the problems, and in a further step to incorporate these experiences.

Acknowledgments

This study is the result of the efforts of the Secretariat of the Health Reform Plan of Shiraz University of Medical Sciences. The authors need to express their appreciation to the colleagues in Macroregion 5 who helped us with this research. We appreciate the Research Deputy of Shiraz University of Medical Sciences funding this research (IR. SUMS. REC.1399.1160).

Financial support and sponsorship

This article is drawn from a research project supported by Shiraz University of Medical Sciences.

Conflict of Interests

The authors declare that they have no competing interests.

References

1. Shariati M. Reform the health system, Why and how? J Knowl Health. 2015;5 (2):12-9.

2. Akhondzade R. Health system transformation project, an opportunity or a threat for doctors (Editorial). *Journal of Anesthesiology and Pain (JAP)*. 2014;5(1):1-2.
3. Cooper LA, Ortega AN, Ammerman AS, Buchwald D, Paskett ED, Powell LH, et al. Calling for a bold new vision of health disparities intervention research. *American Public Health Association*; 2015. p. S374-S6.
4. Shahraki M, Ghaderi S. The impact of Education and Health Infrastructures on Economic Growth of Iran. *Quarterly Journal of Economic Growth and Development Research*. 2015;5(19):136-15.
5. Tabibi S. Necessities of revolution in higher education management to fulfill national development objectives. *Journal of Health Administration*. 1997;1(1):1-31.
6. Du Preez P, Verhoef AH, Simmonds S. Rethinking and researching transformation in higher education: A meta-study of South African trends. *Transformation in Higher Education*. 2016;1(1):1-7.
7. Emami RS. Health system reform plan in Iran: Approaching universal health coverage. 2016.
8. Garrison DR, Akyol Z. Role of instructional technology in the transformation of higher education. *Journal of Computing in Higher Education*. 2009;21(1):19-30.
9. Haghdoost A, Mehroolhassani M, Khajehkazemi R, Fallah M, Dehnavieh R. Monitoring indicators of Iranian health system reform plan. 2013.
10. Kohlbacher F, editor *The use of qualitative content analysis in case study research*. *Forum Qualitative Sozialforschung/ Forum: Qualitative Social Research*; 2006: Institut für Qualitative Forschung.
11. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*. 2004;24(2):105-12.
12. Lincoln YS, Guba EG. But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New directions for program evaluation*. 1986;1986(30):73-84.
13. Arasteh H, Ghorbandoost R, Abbasian H, Zeinabadi H. The Pathology of Transformational Innovation Packages in Medical Education“ A Qualitative Study”. *Research in Medical Education*. 2019;11(4):21-34.
14. Jokar F, Movahedian A, Yamani N. The process of implementing the plan for transformation and innovation of medical education in Isfahan University of Medical Sciences. *Iran J Med Educ* 2017;17:143-6.
15. Jafarpour M. The pathology of Groupwork in Iranian organizations. *Management Studies in Development and Evolution*. 2018;27(87):75-100.
16. Mosadeghrad AM, Fayaz-Bakhsh A, Amini F. Challenges of strategic planning in welfare organization. *Journal of Payavard Salamat*. 2018;11(5):518-31.
17. Farrokhi M, Imanieh M, Najabat M, Zarif Sanaei N, Mehrabi M, Karimian Z, et al. Virtual College Technical and Educational Experts, and Virtual College Fellows Development and Innovation Program in medical education. Cited; 2019.
18. Alidadi A, Amerioun A, Sepandi M, Hosseini Shokouh SM, Abedi R, Zibadel L, et al. The opportunities and challenges of the Ministry of Health and Medical education for improvement of healthcare system. *Health Research Journal*. 2016;1(3):173-84.
19. Khalajinia Z, Gaeeni M. Challenges in implementation of health care reform in the area of treatment qom city. *Management Strategies in Health System*. 2018;3(3):212-24.
20. Yahyavi F, Nasiripour AA, Keikavoosi Arani L. Challenges of implementation of Iranian national hospital accreditation standards (2016) for Tehran's Islamic Azad University Hospitals. *Medical Science Journal of Islamic Azad University-Tehran Medical Branch*. 2018;28(3):252-7.
21. Karimian Z, Farokhi MR. Eight steps in the development of virtual education in educational innovation plan in medical sciences universities, A review of an experience. *Journal of Medicine and Cultivation*. 2018;27(2):101-12.