

REVIEW ARTICLE

A Review on Pathology of the Integration of Medical Education System with Health Services at Iran's Ministry of Health and Medical Education

مراجعه مشاغل تحصیلمی در نظام تعلیم پزشکی مع الخدمات الصحیة والعلاجیة فی وزارة الصحه والمعالج والتعلیم الطبی فی ایران

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Background: By expressing strengths and weaknesses and their classification, the pathology helps managers in preventing them to provide superficial and simple solutions. Therefore, this research as a review deals with the pathology of the project of integrating the medical education system with health services in the Ministry of Health and Medical Education.

Methods: The data collection for this review has been carried out considering the statements of the former and current ministers of health in Iran, as well as through the search of published articles on Iranian and international valid sites (SID, MAGIRAN, Iranmedex, Google Scholar, Embase, PubMed, Scopus, Science Direct) and with searching the words "Integration of the medical education system with health services", without limitation of language and since the beginning of 1985 (since the start of this integration). Finally, 9 relevant researches were studied.

Results: There are a lot of controversies about the advantages and disadvantages of this project. But most reports indicate that the integration of medical education with health areas has led to the development of specialized human resources and the improvement of health indices, on the one hand. On the other hand, it has reduced the quality of medical education and the provision of health services in educational hospitals. However, the results of some researches showed that the lowering of the quality of medical education, that some believe it has occurred in this period, may be due to other factors and not related to the integration itself. **Conclusion:** Considering the adaptation of this project to Iran's superior documents, the high cost of reintegrating medical education into the Ministry of Sciences, Researches and Technology, its positive impact on the improvement of some health indices and the praising of the World Federation of Medical Education for the project, It seems that there is currently no possibility of differentiating the two parts of medical education and health services; the management of this integration is only reasonable way for the medical education and treatment system.

Keywords: Health Services, Integration, Iran, Medical Education System

مروری بر آسیب شناسی طرح ادغام نظام آموزش پزشکی با خدمات بهداشتی و درمانی در وزارت بهداشت، درمان و آموزش پزشکی ایران

زمینه و هدف: آسیب شناسی با بیان نقاط قوت و ضعف و طبقه بندی آنها در جلوگیری از ارائه راه حلهای سطحی و ساده به مدیران کمک میکند. لذا این پژوهش به آسیب شناسی طرح ادغام نظام آموزش پزشکی با خدمات بهداشتی و درمانی در وزارت بهداشت، درمان و آموزش پزشکی به صورت مروری می پردازد.

روش: جمع آوری اطلاعات این پژوهش مروری، با توجه به اظهارات وزرای پیشین و فعلی بهداشت ایران و همچنین از طریق جستجوی مقالات چاپ شده در سایت های معتبر ایرانی و بین المللی از جمله (SID, MAGIRAN, Iranmedex, Google Scholar, Embase, PubMed, Scopus, Science Direct) و با سرچ واژه های " ادغام نظام آموزش پزشکی با خدمات بهداشتی و درمانی و بدون محدودیت زبانی و از ابتدای سال ۱۳۶۴ (از زمان شروع این ادغام) لغایت تاکنون صورت گرفته است. که در نهایت ۹ پژوهش مرتبط مورد بررسی قرار گرفت.

نتایج: بطور کلی در خصوص مزایا و معایب این طرح، بحث و اختلاف نظر فراوانی وجود دارد. اما بیشتر گزارش ها حاکی از آن است که ادغام آموزش پزشکی با عرصه های بهداشتی و درمانی از یک طرف منجر به توسعه نیروی انسانی متخصص و بهبود شاخصهای بهداشتی شده است. اما از طرف دیگر موجب افت کیفیت آموزش پزشکی و غافل شدن دانشگاهها از تولید دانش و ارائه خدمات درمانی در بیمارستانهای آموزشی گردیده است. هرچند که نتایج بعضی از تحقیقات نشان داد که افت کیفیت آموزش پزشکی که به اعتقاد بسیاری در این دوره رخ داده است ممکن است بر اثر عوامل دیگر بوده و ارتباطی با اصل ادغام نداشته باشد. **نتیجه گیری:** با توجه به انطباق این طرح با اسناد بالادستی ایران، هزینه بالای الحاق مجدد آموزش پزشکی به وزارت علوم، تحقیقات و فن آوری، تاثیر مثبت آن در بهبود بعضی از شاخص های بهداشتی و درمانی و تقدیر فدراسیون جهانی آموزش پزشکی از این طرح، به نظر می رسد که در حال حاضر امکان انفکاک دو بخش آموزش پزشکی و خدمات بهداشتی، درمانی وجود نداشته باشد، و مدیریت این ادغام تنها را منطقی فراروی نظام آموزش پزشکی و درمان باشد.

واژه های کلیدی: ادغام، ایران، خدمات بهداشتی درمانی، نظام آموزش پزشکی

الأرضیة السوفد : علم الأضرار والأخطأ، عن طريق توضیح نقاط القوة والضعف وترتيبها يقوم بمساعدة المدراء على الوقاية من وضع طرق حل سطحية وبسيطة. لذلك فإن هذه الدراسة تقوم بمراجعة أخطاء تصميم درج نظام التعليم الطبى مع الخدمات الصحیة والعلاجیة فی وزارة الصحه والمعالج والتعلیم الطبى.

الطريقة : تم جمع المعلومات من آراء وزارة الصحه فی الأعوام السابقة والعالية وأيضاً عن طريق البحث فی المقالات المطبوعة فی المواقع المعتمدة الإيرانية والدولية مثل (SID, MAGIRAN, Iranmedex, Google Scholar, Embase, PubMed, Scopus, Science direct) وعن طريق البحث فی كلمات درج نظام التعليم الطبى مع الخدمات الصحیة والعلاجیة وبدون وجود قيود لغویة ومن بداية عام ۱۹۸۵ زمان بداية هذا الدرج وحتى وقتنا الحالي. وتم تقييم ۹ تحقیقات مرتبطة بهذا الموضوع .

النتائج: بشكل عام فی ما يخص إيجابيات وسلبيات هذا التصميم كان هناك إختلافات فی وجهات النظر. أما أكثر التقاریر أشارت إلى أن درج التعليم الطبى بالخدمات الصحیة والعلاجیة أدى إلى زیادة البید العاملة المتخصصة وإلى تحسين السواخص الصحیة. ولكن ومن جهة أخرى أدى إلى هبوط فی نوعية التعليم وإغفال الجامعات لتولید العلم وتدريب الخدمات العلاجیة فی المشافى التعليمية . ولكن نتائج بعض تحقیقات أظهرت أن هبوط نوعية التعليم الطبى فی إعتقاد المرید إنما هو بسبب عوامل أخرى ویسكن أن لا يكون له علاقة بعملية الدرج .

النتیجة السوفیة : بسبب تطایر هذه الملفات مع الملفات الإيرانية العليا . فإن التكلفة العالية للإلتحاق بالخدمات الصحیة للمعلم الطبى به وزارة العلوم والتحقیقات والتكنولوجيا . لربما تأثیر إيجابی فی تحسين بعض الأمور الصحیة والعلاجیة وأيضاً تقدير المنظمة الطبیة العالمية. فی الوقت الحالي إمكان تفکیك التعليم الطبى والخدمات العلاجیة غیر موجود إطلاقاً وإدارة هذا الدرج فی الطریق الوحيدة لإدارة التعليم الطبى والمعالج .

الكلمات المفتاحیة : درج . نظام التعليم الطبى . الخدمات الصحیة العلاجیة. ایران

ایران کی وزارت صحت میں میڈیکل تعلیم کو میڈیکل خدمات کے شعبے میں منضم کرنے سے ہونے والے نقصانات کا جائزہ

بیک گراؤنڈ: کسی بھی پروگرام کے ممکنہ نقصانات کا جائزہ لینے سے سطحی اور غیر موثر راہ حل بے بجا جاسکتا ہے، اسی وجہ سے یہ تحقیق انجام دی گئی ہے تا کہ یہ معلوم کیا جاسکے کہ میڈیکل تعلیمی نظام کو وزارت صحت کی میڈیکل خدمات کے نظام میں منضم کرنے کے کیا نقصانات سامنے آسکتے ہیں۔

روش: اس تحقیق کے لئے موجودہ وزیر صحت اور سابق وزرا صحت کے بیانات کی پیش نظر معیاریابی اور غیر ملکی ویب سائٹوں میں انضمام کے موضوع پر سرچ کی گئی۔ ان مقالوں کو تحقیق میں شامل کیا گیا ہے جو انیس سو پچاسی سے اس وقت تک لکھے گئے ہیں۔ سرچ کرنے کے بعد نو تحقیقاتی مقالوں کو تحقیق میں شامل کیا گیا ہے۔

نتیجے: میڈیکل تعلیمی نظام کو میڈیکل خدماتی نظام میں منضم کرنے کے سلسلے میں سرکاری سطح پر شدید اختلافات پائے جاتے ہیں۔ لیکن حقیقت یہ ہے کہ میڈیکل تعلیمی نظام کو میڈیکل خدماتی نظام کے ساتھ منسلک کرنے سے ایک طرف میڈیکل ماہر افرادی قوت میں نیز میڈیکل خدمات کے معیار میں اضافہ ہوگا لیکن دوسری طرف سے میڈیکل تعلیم کا معیار گر جائے گا اور یونیورسٹیوں کی جانب سے اچھے ڈاکٹروں کی ٹریننگ اور وزارت صحت کے تحت اسپتالوں میں میڈیکل تعلیم کے معیار میں گراؤٹ آجائے گی۔ ہرچند بعض تحقیقات سے پتہ چلتا ہے کہ جب سے میڈیکل تعلیمی نظام کو میڈیکل خدماتی نظام سے منسلک کیا گیا ہے میڈیکل تعلیم کے معیار میں کمی آئی ہے وجہ دیگر عوامل ہیں اور ان کا انضمام سے کوئی تعلق نہیں ہے۔

سفاویش: ایران کے ترقیاتی م نصوبوں میں اس ذیلی منصوبے پر تاکید کی گئی ہے، اس کے علاوہ اس انضمام سے حفظان صحت کے بعض منصوبوں میں بہتری آئی ہے، لہذا اس انضمام کو جاری رکھنا ہی ملک کے مفاد میں ہے اور میڈیکل نظام کو اسی طرح سے مینج کرنے کی ضرورت ہے۔

کلیدی الفاظ: انضمام، میڈیکل تعلیم، میڈیکل خدمات، ایران

INTRODUCTION

One way of organizational agility is to design an appropriate organizational structure. An agile organization has a unique organizational structure that makes the organization to operate more effective in its own processes (1). Nowadays, one of the main subjects of structural reform in the administrative system is the integration, which, if successful, will be the basis for the success of that organization. But the realization of successful integration requires an examination of its process, a key subject for organizations. Integration activities in the public part have been undertaken over the past decades with the goal of administrative reform (2). In most of Iran's development planning, which has been implemented so far, as well as in Article 28 of the Sixth Development Plan, the integration of governmental organizations has been considered as one of the mechanisms for reforming the administrative system (3). Management thinkers have investigated various aspects of integration in their research, including the relationship between integration and innovation presented by Cefi, and Marsili (4), identity in the integration presented by Tienari, and Vaara (5), the integration process presented by Appelbaum et al. (6), the integration effects provided by Lebudi (7), and the factors affecting integration presented by Pietroburgo and Wernet (8). Pathology helps managers by pointing out their strengths and weaknesses and classifying them in preventing them from providing superficial and simple solutions by predicting variables with the highest returns, this method tries, by offering appropriate feedback, to propose solutions and executive patterns (9). The universities of medical sciences in Iran are responsible for the training of the specialized and committed forces necessary for the health of society (10). Studies have shown that the quality of medical education in many Iranian medical universities is not optimal (11-14).

Historical evidences suggest that the world first medical university was founded in Iran 1800 years ago called Gundi Shapur (15-16). The training of medical personnel over the past centuries has undergone a different course in Iran and has changed from traditional education to modern academic education. Until the early 18th century the medical education was achieved by the presence of a physician (master). After the end of the course, which was determined with the opinion of the professor, the young physician would be able to practice and have students themselves. Modern higher education began with the foundation of the Dar al-Fonoun. The establishment of the Dar al-Fonoun in 1851 has had great impact on the process of the emergence and formation of higher education in all disciplines of science and in particular medical education. The school of medicine and pharmacy in 1880 was separated under the chairmanship of Dr. Loghman Adham, named the Higher School of Medicine, from Dar Al Fonoun, and in 1934 the University of Tehran was formally established. The medical faculty of the University of Tehran was also inaugurated in 1938, and in 1939, the law of delivery of hospitals from medical to university was approved, and clinical education of medical students was transferred from hospitals of Ministry of Health to university hospitals.

Medical education in medical faculties in 1940 was named the Ministry of Education, Endowments and Fine Arts under the supervision of the Ministry of Culture and in 1964 its name was changed by the Ministry of Culture under the supervision of the Ministry of Education and in 1967 with the separation of higher education and the establishment of a new ministry it was established as the Ministry of Sciences and Higher Education (17). The project of integration of the medical education system with the health services at the Ministry of Health and Medical Education was happened since late 1985 in the former Ministry of Health of Iran in order to achieve self-sufficiency in medical education and satisfying the needs of the society in health services, desired use of the medical facilities of the country oriented to provide and generalize health, welfare and medical education and research, and realization of Articles 4, 12 and 13 of Principle 3 and that part of the objectives of Article 29 of the Constitution of the Islamic Republic of Iran, related to health and welfare services (18-19). Now this ministry has 65 universities or independent medical faculties across Iran; it has about 18,000 faculty members and about 200,000 students at different levels of education (20). Health Development Project is in progress in Iran since 2014 (21). One of the important steps in this project is to promote medical education (22). In these days, the subject of reintegration of medical education into higher education is proposed once in a while, a case that is never closed; an interesting point is the insistence of one ministry (Ministry of Sciences, Researches and Technology) and the denial of another ministry (Ministry of Health and medical education). Studies show that in the vast majority of countries in the world, there is an integrated educational system; according to reports declared by the Ministry of Health and Medical Education in the early 2000s, the separation of medical education from the Ministry of Sciences is an Iranian experience. Of course, Cuba has also had such an experience, but in terms of what is happening today in the world, the separation of medical education from the Ministry of Sciences is limited to Iran and at last another country (23). In February 2004 in a report, referring to the key role of EDC in Iran's medical sciences universities, World Federation for Medical Education (WFME) has announced the medical education in Iran as consistent with international standards and the medical education reforms in Iran as inspiring all countries of the world (24). In general, there are many disagreements regarding the advantages and disadvantages of the project of integrating the medical education system with health services in the Ministry of Health and Medical Education. Although this project has prevented the multiplicity of health system management, it has been pointed out that the existing educational and therapeutic trends do not have the required standards (25). Also, some reports indicate that the integration of medical education with health areas has led to the development of expert human resources and the improvement of health indices, on the one hand (26). On the other hand, it has led to a decline in the quality of medical education and the provision of health services in educational hospitals (27). The range of discrepancies has been widespread so that in 2002 an 2017,

the project of separation of medical education with the system of providing health services was seriously raised by the representatives in the Islamic Consultative Assembly. In addition, some other organizations, such as the Agricultural Jihad, the Ministry of Oil, etc., are demanding the integration of the education part in their affiliated organizations. Therefore, according to the articles published so far, this research as a review deals with the pathology of the project of integrating the medical education system with health services in the Ministry of Health and Medical Education. The findings of this research can be used in the policy-making of integration of governmental organizations; the studied model is effective in promoting the indigenous knowledge of the country in the field of integration.

METHODS

Collecting the information of this review has been carried out considering the statements of the former and current ministers of health in Iran, as well as through the search of published articles on Iranian and international valid sites (SID, MAGIRAN, Iranmedex, Google Scholar, Embase, PubMed, Scopus, Science Direct) and with searching the words "Integration of the medical education system with health services", without limitation of language and since the beginning of 1985 (since the start of this integration). There have been studied 9 related researches. Also in our research we have used the views of six ministers of health and medical education Iran, who have been responsible for this ministry after the implementation of the project; the final opinion of the Islamic Consultative Assembly's Research Center of Iran has been also expressed.

RESULTS

We try to list the researches done on the project of integration of the medical education system with health services as follows:

In 2017, Rahavard conducted a research aimed at identifying the factors affecting the successful integration of Iranian government organizations. The statistical population of this research was 35 organizations integrated into Iranian public section. Our findings showed that the integration of Iranian governmental machinery is not successful, and "trust and fairness", "management of differences", "Conflict and ambiguity" and "knowledge management and convergence" are factors affecting the successful integration in Iranian organizations. Also, the comparison of the integration performance in the four financial, customer, process, and learning dimensions showed that learning dimension has a relatively better position than other dimensions of performance (28).

In 2009, Marandi conducted a research entitled "Integration of medical education and health services and its effects in Iran." In this research, the problems of medical education and health education have been studied before and after the revolution, including lack of skilled manpower. He believes that in most parts of the country - except in Tehran - the shortage of health manpower was clear. In most of the major cities, a large majority of physicians was resident (18).

Majdzadeh et al in 2011 conducted a research entitled "link between the research and praxis in Iran: two decades after the integration of Health Ministry and Medical Universities." Conducting a survey, he has concluded that the integration of medical education with health areas has led to the development of specialized human resources and the improvement of health indices, on the one hand. But, on the other hand, because of giving more importance to the treatment, universities have neglected their core mission of producing knowledge (19).

In 2016, Ebrahimnia et al conducted a research entitled "Pathology of the Integration of the Medical Education System with the Headquarters of a Health Organization." In this qualitative research, 18 senior managers of the organization were selected purposefully. The researchers came to this conclusion that integration in the four areas of focus, mission, coordination, and effectiveness had different strengths and weaknesses. Integration reduced the administrative structure and increased efficiency, but failed to gain much effectiveness. Also, the interference of headquarters and queues weakened the medical education, so that 67% of managers opposed this continuation of integration. At the end, the researchers concluded that the pathology of the status quo and the determination of the goal before the integration seems necessary and the views of the managers of different parts of the organization will help achieve the goals of integration (29).

In the year 2015, Mirmoghtadaie et al conducted a research entitled a review of the challenges of integrating medical education with the system of providing services in Iran from the perspective of human capital. This research was conducted descriptively and in the form of a review; pointing to the global challenges of human resources, it explored the integration project from this perspective, and, based on the researches carried out, examined the survival and destruction of this project. According to their research, they claimed that the review of existing studies and documents revealed the strengths and weaknesses of the integration system and identified opportunities and threats. Since the integration project of medical education is associated with the delivery of services with a wide range of challenges, the analysis of these components shows that with the advent of global developments and the challenges facing human resources management, this project needs to achieve sustainability changes in the health field for insuring its durability (30).

In 2015, Azizi conducted a research entitled Challenges and Perspectives of Medical Education. The results of this research showed that 82% of the experts in medical education under question considered to be good the required number of human resources needed in the country. Most often they evaluated good-quality human resources as moderate and good, and believed that breaking the fence of medical faculties and conducting education and research in the society was weak. They also evaluated moderate and weak the promotion of scientific level of human resource in institutions, outpatient centers and hospitals (26).

In 2011, Shakebaei et al. carried out a research entitled

Table 1. Results of studied articles					
Authors	Year	Article title	Findings and conclusion	Data gathering tool	Stance
Rahnavard	2018	Understanding the Factors Affecting the Successful Integration of Iranian Government Organizations	The findings of this research showed that the integration of Iranian government organizations is not successful, and "Trust and fairness", "management of differences", "conflict and ambiguity" and "knowledge management and convergence" are factors affecting successful integration.	Questionnaire	Opposes the integration of Iranian Government Organizations
Ebrahimnia et al	2016	Pathology of Integrating the Medical Education System with the Headquarters of a Health Organization	Integration in the four areas of focus, mission, coordination and effectiveness had different strengths and weaknesses. Integration reduced the administrative structure and increased efficiency, but failed to gain much effectiveness. Also, interference of headquarters and queues weakened the medical education, so that 67% of managers opposed this continuation of integration.	Questionnaire	Agree to the reintegrating medical education into the Ministry of Sciences, Researches and Technology
Mirbagheri et al	2016	A review of the Challenges of the project of Integration of Medical Education with the System of Provision of Services in Iran from the Perspective of Human Capital	The review of existing studies and documents revealed the strengths and weaknesses of the integration system and identified opportunities and threats. Since the integration project of medical education is associated with the delivery of services with a wide range of challenges, the analysis of these components shows that with the advent of global developments and the challenges facing human resources management, this project needs to achieve sustainable changes in the health field for insuring its durability.	Review	Opposition to the reintegrating medical education into the Ministry of Sciences, Researches and Technology
Azizi	2015	Challenges and perspectives of medical education	82% of the experts in medical education under question saw the provision of the number of human resources needed in the country good and excellent. Mostly, they considered the good-quality human resources as moderate and good, and believed that breaking the fence of the medical faculties and performing education and research in the society was weak. They also evaluated the moderate and weak the scientific level of human resources in institutions, outpatient centers and hospitals.	Questionnaire	Agree to the reintegrating medical education into the Ministry of Sciences, Researches and Technology
Shakebaei et al	2013	Assessment of the achievement of the goals of the system of integration of medical education with the provision of health services from the viewpoints of the faculty members of Kermanshah University of Medical Sciences	The integration project to achieve the goals is still far from the desired level. Also, the success rate of this project in health areas was evaluated as better than medical and educational areas, and in the research and social fields (such as changing the vision of graduates and members of the faculty societally) is significantly less than other cases. They concluded finally that these differences are due to shortcomings of the current system in achieving some of their goals, and suggested the repeat of the study in other centers as well as further studies on this subject.	Questionnaire	Opposition to the reintegrating medical education into the Ministry of Sciences, Researches and Technology

Table 1. Continued					
Authors	Year	Article title	Findings and conclusion	Data gathering tool	Stance
6 Abbasi Moghaddam et al	2013	Attitude of academic experts towards the results of integration of medical education with health areas	The majority of people under study believed that the quality of medical education had fallen as compared to before the integration, while agreeing on the link between integration and some of the achievements available, such as establishing a care system and improving health indices. They also believed that the reintegration of medical education to the Ministry of Sciences has caused many problems and the ministry does not have readiness for reintegration. They also found that the lowering in the quality of medical education, that for many has occurred in this period, is largely due to other factors that did not relate to the integration itself.	Questionnaire	Opposition to the reintegrating medical education into the Ministry of Sciences, Researches and Technology
7 Ranjbar	2006	A review of the trend of integration of higher education in health services	After decades of implementation of this project, taking into account the responsibility of individuals during the implementation of this project, paying attention to the sources in this regard and its achievements, and comparing these three factors from the perspective of the informed people, it should be evaluated continually by the high ranking officials of the system and removed its weaknesses.	Questionnaire	Has not talked about this
8 Majdzadeh et al	2012	Link between research and practice in Iran: two decades after the integration of the Ministry of Health and Medical Universities	Surveying the opinion of some experts, he came to the conclusion that the integration of medical education with health areas led to the development of specialized human resources and the improvement of health indices, on the one hand. But, on the other hand, due to giving great importance to the treatment part, the universities have neglected their core mission of producing knowledge.	Questionnaire	Has not talked about this
9 Marandi	2010	Integration of Medical Education and Health Services and its Impacts in Iran	In this research, the problems of medical and health education before and after the revolution have been studied, including lack of skilled manpower. He believes that in most parts of the country - except in Tehran - the shortage of health workforce was significant. As in the capital, and lesser than it in few cities a large majority of physicians was residing	Analysis	Opposition to the reintegrating medical education into the Ministry of Sciences, Researches and Technology

"Studying the achievement of the goals of the system of integration of medical education with the provision of health services from the viewpoint of the faculty members of Kermanshah University of Medical Sciences." The results showed that the achievement of integration goals was $37.52 \pm 1.07\%$ (SEM \pm Mean) for the members of the faculty as the maximum points for this study. For these members, the highest score was allocated to services and health indices ($59.87 \pm 1.21\%$) and the lowest score was allocated to the research activities and facilities as well as to the level of social successes ($49.19 \pm 1.20\%$) of integration project. In this research, in view of faculty members, the success rate of the

integration project in achieving the goals is still far from the desired level. Also, the success rate of this project in health areas has been evaluated as to be more than medical and educational, and in the research and social fields (such as changing the vision of graduates and members of the faculty societally) is significantly less than other cases. They conclude in the end that these differences are due to shortcomings of the current system in achieving some of their goals, and have suggested a repeat of the present study in other centers as well as further studies (25).

In 2002, Abbasi Moghaddam et al. conducted a research entitled the attitude of academic experts regarding the

results of the integration of medical education with health areas. In this research, 556 faculty members and managers of 10 universities of medical sciences in Iran were randomly selected and were asked in the form of questionnaire. The majority of people surveyed, while agreeing on the link between integration and some of the existing achievements, such as establishing a care system and improving health indices, have believed that the quality of medical education has fallen as compared to before integration. Also, the majority of the respondents stated that the reintegration of medical education with the Ministry of Sciences has caused many problems and the ministry does not have readiness to reintegrate. However, despite the above views, 46% of the subjects believed in the reintegration of medical education to the Ministry of Sciences and 40.7% disagreed with this view and 13.3% abstained. They concluded in the end that there was no consensus between the experts under study in the relation of the positive and the negative results of the integration. Also, the lowering of the quality of medical education, that has occurred in this period for many, was mainly due to other factors and was not related to the

integration itself. Therefore, for them in the assessment of the positive and negative results of integration, considering other factors and working procedures for treating these factors is required (27).

In 2001, Rajabpour conducted a research entitled "A Review of the trend of Integration of Medical Higher Education in Health Services." He has dealt with historical analysis of the integration project and its ought and non-ought. He concludes that after decades of implementation of this project, taking into account the responsibility of individuals during the implementation of this project, paying attention to the sources in this regard and its achievements, and comparing these three factors from the perspective of the conscious people, it should be evaluated continuously by high-ranking officials of the system and be removed its weaknesses in light of the research carried out (23).

The statements of the ministers of health who have been responsible for the Ministry of Health and Medical Education in Iran after the implementation of this project have been listed in Table 2.

Table 2. Statements of the ministers of health who have been responsible for the Ministry of Health and Medical Education in Iran after the implementation of this project				
Name & Last Name	position	Duration of responsibility	Stance	Summary of statements
S. A. Marandi	Minister of health and medical education	1984-1989 & 1993-1996	Opposition to the reintegrating medical education into the Ministry of Sciences, Researches and Technology	When faculty members are present at the Ministry of Health, they become familiar with the subjects, educate their students, and take expert counseling sessions at the Ministry of Health to find effective solutions. When members of the faculty are separated from the ministry of health, they become alien to the health of the society and no longer serve as an expert, nor can they teach the country's problems. If separated, half the hospital beds of the Ministry of Health will be lost, then the Ministry of Health cannot be responsible for the health of the society.
I. Fazel	Minister of health and medical education	1989-1990	Agree to the reintegrating medical education into the Ministry of Sciences, Researches and Technology	The only motivation behind the separation of medical education from the Ministry of Sciences in recent years was to compensate for the shortage of physicians in the country. The transfer of medical education to the Ministry of Health was at a time when at the same time, at the request of the Minister of Sciences, it was agreed to provide several educational hospitals to the Ministry of Sciences; there was no need to differentiate the medical education from the ministry. With the separation of medical education from the Ministry of Sciences, both medical education and joint scientific disciplines were injured; with the return of medical education to the Ministry of Sciences, these fields were developed quantitatively and qualitatively. The Ministry of Health is in charge of the executive, and now the heads of medical science universities are responsibilities that are not educational at all, and therefore medical education has been overshadowed by health and service subjects.

Table 2. Continued				
Name & Last Name	position	Duration of responsibility	Stance	Summary of statements
R. Malekzadeh	Minister of health and medical education	1990-1993	Agree to the reintegrating medical education into the Ministry of Sciences, Researches and Technology	The Ministry of Health expects the faculty member manages the Emergency Department, cares the department, visits the patient. Finally, if he has time, he gives lectures. The separation of medical education from the Ministry of Sciences and its connection to the Ministry of Health has been a mistake. Despite the opposition of three thousand members of the faculty, this was carried out in 1985 and the goal was to train physicians for the country, but now it has trained so much physicians that it has created problems. Its first disadvantage is the disconnection with the basic sciences, and the second is the integration with health organizations and the establishment of medical universities of medical services.
M. Pezeshkian	Minister of health and medical education	2001-2005	Opposition to the reintegrating medical education into the Ministry of Sciences, Researches and Technology	The proposal to integrate medical education of the Ministry of Health in the Ministry of Sciences is not scientific and is not in the best interests of the country; it seems that the proposal has been made without any scientific review. Many times, the Ministry of Health said it was not thinking about integrating with the Ministry of Sciences; of course, cooperation and bilateral activities are good, but integration is not good. If integration is supposed to take place, a study should be submitted, but any proposal without a scientific basis, is not reasonable. The scientific basis for words should be criticized, and if the system now wants to function correctly, it should show the strategic basis of its programs. If the strategies for integrating the Ministry of Health and the Ministry of Sciences so far have been non-scientific, they cannot not be performed. Therefore, the proposed programs should be transparent.
K. Bagheri Lankarani	Minister of health and medical education	2005-2009	Opposition to the reintegrating medical education into the Ministry of Sciences, Researches and Technology	The Ministry of Health has followed the reform of the medical education system for several years, and has supported and continued the reform project at Shahid Beheshti University of Medical Sciences, which began in the previous government. In our reviews, we realized that reform through only one center would not solve the need for a country's medical education, which is why we expanded this subject in the country with regard to the facilities we had. Almost all medical universities in the country have a reform project in place, and the integration of courses vertically and horizontally is being pursued seriously. The Ministry of Health's actions in the medical education have already undermined the integration of medical education in the Ministry of Health. Currently, we are going to know only responsible for teaching a few universities, and several universities responsible for providing services. The subject of integration of medical education in the Ministry of Sciences was one of the important ones in medical science education. In the world, the best way in medical education is to integrate it with services, but we need a model that does not harm the education and, besides, we can provide services, but we are not doing this right now.
S. H. Ghazizadeh Hashemi	Minister of health and medical education	2013- Now	Opposition to the reintegrating medical education into the Ministry of Sciences, Researches and Technology	We are not ready to integrate medical science education with the Ministry of Sciences; we cannot go back and in the health policies announced by the Supreme Leader the promotion of medical education has been also emphasized.

Table 2. Continued				
Name & Last Name	position	Duration of responsibility	Stance	Summary of statements
Iranian National Assembly Research Center	Islamic Consultation Assembly	Now	Opposition to the reintegrating medical education into the Ministry of Sciences, Researches and Technology	In a detailed report on the research project on the integration of educational systems in Iran, the Majlis Research Center announced that at present, the integration of educational systems in the country at any level is neither possible nor desirable, and the only option available in today's Iranian society can be creation of an intermediary institution among educational systems that is responsible for coordinating and linking educational systems.

DISCUSSION

There are a lot of controversies about the advantages and disadvantages of this project. But most reports indicate that the integration of medical education with health areas has led to the development of specialized human resources and the improvement of health indices, on the one hand (18,26). On the other hand, it has reduced the quality of medical education and the provision of health services in educational hospitals (27). Also, because of giving great importance to the treatment, the universities have neglected their core mission of producing knowledge (19). However, the results of some researches showed that the lowering of the quality of medical education, that some believe it has occurred in this period, may be due to other factors and not related to the integration itself. It is noteworthy that the World Federation of Medical Education, in February 2004, appreciated this project in a report. It has suggested that the integration of education and health services can inspire other countries in the world, given the unique nature of medical education in Iran and the positive nature of this approach (24). Also, six ministries of health and medical education in Iran who have been responsible for the ministry after the implementation of the project, have so far commented on it; of whom 4 minister, including the current health minister, are against the attachment of medical education to the Ministry of Sciences, Researches and Technology. Also, the Iranian National Assembly Research Center announced in a detailed report about the research project on the integration of educational systems in Iran that at present, the integration of educational systems in the country at any level is neither possible nor desirable; the only option in contemporaneous Iranian society can be considered to be a desired option for creating harmony between educational systems is to create an intermediary institution among educational systems that is responsible for coordinating and linking educational systems. Another point to which those who agree with the attachment of medical education to higher education do not pay attention is the superior documents. In all of the superior documents, including health policies declared by the leadership of the Islamic Republic of Iran on the promotion of medical education, the medical education has been seen within the Ministry of Health; Apart from all these discussions, in the present circumstances, Does not seem logical, the displacement of a massive campus with 65

universities or Independent colleges, 200,000 students and 20,000 faculty members.

The transformation of higher education systems is unavoidable around the world. The proponents of transformation and change are naturally global and similar, but their effects vary from country to country and from region to region (17, 31). One of the oldest factors in the transformation of higher education is the pressure of society regarding transparency and responsibility; some new factors include the rapid development of technology, the changing needs of society for new skills in the age of globalization. Changes and transformations in human societies have changed the attitude, values and expectations of the human being, and as a result, they affect the tasks of the health higher education system (32). Undoubtedly, medical education has gained many successes over the last three decades, and faculty members of the medicine have done a great job in providing medical manpower, but it is important to reflect on the fact that social responsibility is essential at all levels of the health system and also at the college level. The health system should be responsive in respect of the quality of services provided by health service providers, and medical universities should be accountable for the knowledge, attitudes, skills, and abilities of providers who they educate them as graduates. The differentiation of clinical and academic areas will minimize this responsibility at two levels. In other words, the health system will not be responsible for the service quality of service providers whom it has not trained them, and medical universities will give their graduates to an independent and separate system and will not be responsible for their next performance (26). Medical education decision-makers and officials of the Ministry of Health and Medical Education, while giving importance to the implications of the integration of medical education and the provision of health services, should address the challenges of responsive medical education; and they should plan for removing the shortcomings and improving the quality of medical education in the country with the help of faculty members. Of course, one of the important steps in the Health Development Plan, which began in 2014 in Iran, is to promote the medical education. It seems that there is currently no possibility of differentiating the two parts of medical education and health services; the management of this integration is only reasonable way for the medical education and treatment

system. Of course, every major national project should be criticized and analyzed after decades and its problems resolved. Realizing this depends on the correct understanding of integration, perceived as a continuous process and management of the resulting change over time. Both systems must play an active and decisive role in other reforms. The educational system should play a leading role and have an active and continuous presence in the formation of a desirable service delivery system and the provision of services in order to transform the educational system and the architecture of an ideal educational system. The participation of each of the two educational systems and the provision of services in other reforms requires that the two systems are so interconnected that they move nearly and are sensitive to their fate. In general, the main goal of integration should be the transformation of the medical education system in order to better respond to the needs and expectations of society and consequently the evolution of the health system. The indices for responding to the societal needs and expectations can be a tool for measuring the achievements and implications of integration. In order to better achieve the success of the integration project, the following practical suggestions (especially in medical education) are noteworthy:

1. In the educational planning of all specialized disciplines, the content of the programs is to some extent be determined on the basis of the health needs of the country.
2. In the Regulations on Promotion of the Faculty Members, the appropriate weight should be given to the various dimensions of their (educational, health, treatment, etc.) mission.

3. In almost all committees related to national programs for the provision of services, the faculty members of the universities should have an active and determinative role.
4. Gradually, the service provision guidelines should be introduced in the training content and evaluation of specialized courses.
5. To apply the results of researches conducted in the country, the articles published in the prestigious medical journals should be included in specialized exam resources.
6. In all universities, some measures are needed to expand the outside of the hospital, although the measures taken may not be adequate.
7. In the decision-making process related to the development of higher education in the Ministry of Health and Medical Education, there should be a very close interaction between the various departments, including educational and health departments.
8. In strategic plans of specialized and subspecialty disciplines, to meet the health needs of the country should be highlighted.
9. Continuing education should take a legal form and take place comprehensively.

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