



Outsourcing in University Hospitals to Provide a Policy Formation Model: A Meta-Synthesis

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Abstract

Introduction: Every organization needs to develop and use the opportunities and mechanisms to resolve its issues and problems, improve conditions, and take advantage of new opportunities and mechanisms. The health sector, particularly educational and health centers, is not an exception and is more important in terms of its role in enhancing people's health. Thus, the objective of this study was to provide a model for the formation of outsourcing policies in educational centers

Methods: This study used an integrative meta-synthesis approach based on the model presented by Sandelowski and Barroso. For data collection, national and international scientific databases were searched to find researches conducted from January 2010 to August 2019 using the following keywords: outsourcing, hospital outsourcing, outsourcing policy formation, outsourcing policy-making in hospitals of internal and external were used. Finally, 37 articles were selected.

Results: A total of 10 main categories and 34 subcategories were identified by reviewing selected articles including outsourcing causes and objectives (five subcategories), outsourcing challenges (five subcategories), outsourcing disadvantages (five subcategories), outsourcing advantages (four subcategories), selection options (two subcategories), opportunities (three subcategories), risks (four subcategories), direct stakeholders (two subcategories), indirect stakeholders (two subcategories), and decision-makers (actors) (two subcategories). Finally, an outsourcing policy formation model was presented.

Conclusion: The results of this study indicated the influence of different components and dimensions on the formation of outsourcing policy in the University Hospitals. Therefore, if the policy-makers have a comprehensive and realistic viewpoint, they can play a significant role in the success of the policies formulated.

Keywords: Policy formation, Outsourcing, Hospitals, Meta-synthesis

Introduction

The ultimate goal of the health care system in every country is to promote the health of individuals so as to improve healthy lifestyles (1). Improving the quality of healthcare and services, increasing efficiency, reducing costs, and increasing patient satisfaction depend on feasible policies (2). The policymaking process (formulating, implementing,

and evaluating policies) can be very challenging. Some of these challenges including human factors (3), structural factors (4), and environmental factors (including social, economic, political, and cultural factors) (5,6) are related to the stage of policy formulation. With respect to these challenges, success depends on convenient and applicable



programs. Another issue in policy-making is the organizations, decision-makers, and policymakers' tendency to over-centralization. In this case, the participation of organizational groups and public organizations is minimized, which significantly reduces the efficiency of the policy (7).

There are similar problems in the policy formulation of training and treatment outsourcing centers, such as lack of attention to the effect of outsourcing on human resources (8,9), processes (10), methods and tools (11), lack of necessary infrastructure (10-13), weak rules (14-16), poor planning (15-18), and overall structures (5) and behaviors (19).

Education and treatment centers are one of the specific components of the health system in many countries (20). Given the important mission of public health education and treatment centers and the allocation of a significant portion of the current budget to this area, the failure to formulate a proper and accurate policy has led to the waste of dedicated credit, financial misuse, reduced quality of services, reduced efficiency, increased costs, and decreased patient satisfaction. In the meantime, organizational restructuring, especially downsizing and reducing state ownership, is one of the most effective ways that can be recognized as an improvement strategy. One of the most common interventions in this field is service outsourcing (21). The decision to use outsourcing in hospitals requires more than rules and regulations. New and innovative management systems are required to effectively manage and coordinate activities between government and outsourced hospitals.

In a qualitative study, Joudaki et al. identified the reasons for the failure of the outsourcing policy as those related to employer (hospital), private sector (contractors), workers, and policy-making (22).

Numerous studies have been conducted on the outsourcing in educational centers and various aspects have been investigated. In a study conducted in India on outsourced and non-outsourced hospitals, it was found that outsourcing reduced direct and indirect costs by 40% (23). In a qualitative study, Joudaki et al. identified the reasons for failure of outsourcing policy as including those related to employer (hospital), private sector (contractors), workers, and policy-making (22). By drawing on a conceptual framework to illustrate the effect of outsourcing on health system performance, Liu et al. reported that discussing the positive or negative impact of outsourcing regardless of the circumstances in which it takes place is misleading (24). According

to the study by Ferdosi et al., the strategy of supplying the nursing staff outside the organization resulted in a severe loss of efficiency, thus, the strategy adopted did not produce the necessary products for the hospital (9). The results of other studies have shown the most significant benefits of hospital downsizing as cost reduction (25), respect for patient personality, appropriate patient services, acquisition of new knowledge and technology (26), and improved time management (27). In contrast, other studies revealed that the most significant disadvantages were reduced service delivery (28), high costs to patients (29), increased staff workloads, and employment instability (30).

Although the results of numerous studies on outsourcing showed different and contradictory advantages and disadvantages, doing so is unavoidable. The reason for this is that according to the five-year development plans and Article 44 of the Constitution, the executive bodies were required to adopt outsourcing. However, this requires making the right decisions and developing policies that cover all political, economic, social, geographic, and cultural aspects and increase the quality and delivery of better services in education and treatment centers. Therefore, the purpose of the present study was to provide an appropriate policy model by examining various aspects of outsourcing in training and health centers.

Methods

In this study, a meta-synthesis method was used. By providing a systematic approach to researchers through combining various qualitative studies, meta-synthesis explores new and fundamental metaphors and themes, and thus promotes current knowledge, and provides a comprehensive view of the issues. In other words, meta-synthesis is the combination of interpretations of the main data of the studies selected. There are two general approaches to meta-synthesis. The first is an integrative approach which emphasizes the collection and integration of previous studies. This approach identifies points similar to the findings of previous studies and integrates them based on high-reliability variables. The second approach, which is an interpretive composition, emphasizes the interpretation of previous studies. In this approach, comparison and interpretation are important as by using a kind of induction, it predicts what will happen under similar circumstances and how the categories relate to or interact with each other (31).

The first approach, namely the integrative meta-synthesis approach, was used in the present study.

To achieve the purpose of the research, a hybrid method was used in accordance with the model proposed by Sandelowski and Barroso (32). The model consists of seven stages and different methodological aspects of this research are as follows.

The first step of this model was organizing research questions. Different parameters such as what, who (the study community), when (time frame), and how (method) were used to set the research questions. In the present study, the relevant questions included:

- 1- What are the dimensions and components of the outsourcing policy formation of educational and treatment centers?
2. What is the relationship between the dimensions and components of the outsourcing policy formation of educational and treatment centers?

In the second stage, the research literature was systematically reviewed. The statistical population of this study consisted of studies that investigated different aspects of outsourcing in educational and therapeutic centers. Therefore, the research data were collected from January 2010 to August 2019 by searching national and international scientific databases using the following keywords: “outsourcing, hospital outsourcing, outsourcing policy formation, hospital outsourcing policy-making” and based on the search strategies outlined in Table (1).

In the third stage, 1193 articles were identified based on search strategies in different databases and various parameters such as title, abstract, and content were evaluated for selecting the appropriate articles based on the algorithm shown in Figure 1, and finally 37 sources were extracted and selected.

Table 1. Article search process

Database	Search strategy	Articles obtained	Articles selected
PubMed	(outsourcing [Title]) AND ("2010"[Date - Publication]: "2019"[Date - Publication])	244	
	(hospital outsourcing[Title]) AND ("2010"[Date - Publication]: "2019"[Date - Publication])	77	
	((hospital outsourcing [Title/Abstract]) AND hospital outsourcing[MeSH Terms]) AND ("2010"[Date - Publication]: "2019"[Date - Publication])	71	17
	(Hospital Outsourcing Policy [Title/Abstract]) AND ("2010/01/01"[Date - Publication]: "2019/7/1"[Date - Publication])	20	
Science Direct	Year: 2010-2019 And Title: outsourcing	460	
	Year: 2010-2019 And Title, abstract, keywords: hospital outsourcing	24	3
	Year: 2010-2019 And Title, abstract, keywords: hospital And Title: outsourcing	10	
	Year: 2010-2019 Title, abstract, keywords: Hospital Outsourcing Policy	2	
Google Scholar	All in title: hospital outsourcing	97	
	Year: 2010-2019		
	All in title: outsourcing "hospital outsourcing"	24	10
	Year: 2010-2019		
Noormags	All in title: Hospital Outsourcing Policy	1	
	Year: 2010-2019		
Noormags	Outsourcing in the title from 2010 to 2019	108	3
SID	Outsourcing in the title from 2010 to 2019	7	1
Magiran	Outsourcing in the title + abstract + keyword from 2010 to 2019	48	4

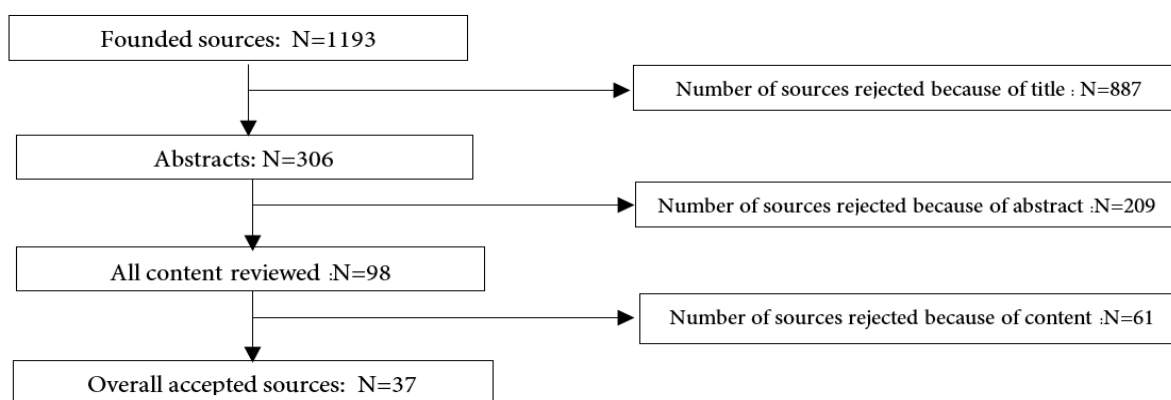


Figure 1. Searching and selecting appropriate articles

The data obtained from the outsourcing in educational and health centers were extracted and classified in the fourth stage using MAXQDA software. In the fifth stage, open coding was used to analyze the data, so that all the relevant components were initially identified and considered as primary codes and then classified and subdivided in the next steps.

In the sixth stage, Critical Appraisal Skills Program (CASP) was used to assess the quality of the content of the selected articles. For this purpose, a checklist consisting of 10 questions was used to evaluate the accuracy, validity, and the importance of the qualitative studies. The questions in the checklist included research goals, methodology, research design, sampling, data collection, reflection or relationship between the researcher and participants, ethical considerations, accuracy of data analysis, clear expression of the findings, and the value of the research. To complete the checklist, the researcher reviewed each research and scored each question on a five-point scale from very good (5) to very weak (1) and finally added up the scores. Then, the articles were categorized as very good (41-50), good (31-40), moderate (21-30), weak (11-20), and very weak (0-10) based on the 50-point scale of the tool.

Articles with a score of less than 30 were removed and the remaining 37 articles were selected (33).

The final stage was the presentation of the findings through meta-synthesis.

A critical evaluation tool was used to determine the validity of the present study. This tool contained a comprehensive list of questions used to determine the validity, applicability, and suitability of the

study as described in the quality control phase (34). To determine the reliability, the inter-rater method, that of agreement between the two researchers who performed the coding, was used. Accordingly, one researcher first did the initial coding and identified 13 concepts, then the other researcher began coding independently. The second researcher identified 12 concepts (Table 2 and Formula 1). The number of concepts shared between the two researchers was 10 and kappa index was calculated as 0.6266 according to the following formula derived from the kappa index table (Table 3, Formula 2, Formula 3).

Results

After analyzing the selected articles and merging duplicate codes into multiple stages in the present study, a total of 238 codes, 34 subcategories, and 10 main categories were identified tables (4).

Financial and Budgetary Resources

The results of various studies indicated that there was a relatively high consensus on the reasons and objectives of outsourcing, with financial and budgetary issues being the most important cause of outsourcing. Some of the issues were related to the high costs of maintaining and repairing hospital equipment and some to the high costs of purchasing high-tech equipment, so that the purchase and use of such equipment enhance the quality of medical services (35-37). Conversely, some issues were related to attracting investors (38). Given the inability of most educational and treatment centers to procure and renovate laboratory equipment, outsourcing and seeking assistance from the private sector seem to be of great help in renovating these facilities.

Table 2. Meta-synthesis validity

	First researcher		
	Yes	No	All
Second researcher	Yes	A=10	B=2
	No	C=3	D=0
	All	13	2
			15

$$\text{Formula 1. Observed Agreements} = \frac{A + D}{N} = 0.66$$

Table 3. Kappa index table

Status	Weak	Not important	Average	Acceptable	Valid	Excellent
Kappa index	0<	0-0.2	0.21-0.4	0.41-0.6	0.61-0.8	0.81-1

$$\text{Formula 2. Accidental Agreements} = \frac{A + B}{N} \times \frac{A + C}{N} \times \frac{C + D}{N} \times \frac{B + D}{N} = 0.08944$$

$$\text{Formula 3. } K = \frac{\text{Observed Agreements} + \text{Accidental Agreements}}{1 - \text{Accidental Agreements}} = 0.6266$$

Table 4. Main categories and subcategories of outsourcing

Main Category	Subcategory
Outsourcing causes and objectives	Financial and budgetary resources
	Management
	Information Technology (IT)
	Personnel and organizational processes
	Clients (patients)
Outsourcing Challenges	Economic challenges
	Contractor-related challenges
	Human resource challenges
	Structural challenges
	Planning challenges
Outsourcing disadvantages	Ethical standards
	Human factors
	Management factors
	Organizational factors
	Economic factors
Outsourcing advantages	Economic advantages
	Patient satisfaction
	Organizational empowerment
	Decoration of the space of medical centers
Selection options	No outsourcing
	Outsourcing
Opportunities	Optimal resource management
	Accessibility
	Opportunity to compete
Direct stakeholders	National stakeholders
	Local stakeholders
Indirect stakeholders	Contractors
	Recipients of services
Risks	Operational risks
	Commercial risks
	Strategic risks
	Communication and human resource risks
	Ministry of Health and Medical Education
Decision-makers (actors)	Medical Sciences Universities

Management

Some experts attributed the failure of outsourcing in training centers to managers' unfamiliarity to the methods of outsourcing services, the interference of the duties of line and staff personnel, management instability, lack of executive authority (22), and lack of leadership (39). Moreover, numerous individuals and units involved in outsourcing which is the result of poor management was another reason for failure of outsourcing. To overcome these issues, some experts proposed solutions including improving management, establishing outsourcing teams, and requiring managers to take appropriate management courses to increase their awareness and knowledge. Others stated that outsourcing can provide appropriate solutions by increasing the supervision of managers and identifying shortcomings and weaknesses.

Information Technology

Providing access to and using key products and technologies are essential to keep the healthcare

systems up to date with new developments and technologies, especially in the treatment of diseases, diagnosis, and provision of services (40). Due to the high cost of these products and the limited funding of training centers, outsourcing is one of the best ways to access these technologies.

Personnel and organizational processes

One of the important reasons for outsourcing is the shortage of human resources, especially skilled, expert, and knowledge-based ones (26). Expert human resources are the driving force behind any organization and are important in organizational excellence and the basis for developing and enhancing services. When the employees of the organization make the most of their time and when they turn threats into opportunities and weaknesses into power, they lead to the growth of the organization and better customer services. On the other hand, addressing trivial matters and lack of careful oversight of executive affairs are other reasons for outsourcing to

resolve problems.

Clients (patients)

Patient satisfaction is the most important aspect of quality of service. Patients usually complain if they are not satisfied with the services they receive. Studying the nature and probable cause of the complaints increases both patient satisfaction and quality of service (40-43, 26). Compliance with medical ethics and patients' rights in providing health services and patient satisfaction is vital in order to ensure the quality of health care services. Patient satisfaction is not only a means of increasing commitment to executing orders but also one of the outcomes that the organization strives to achieve.

Economic challenges

It can be suggested that economic problems are the basis of most problems, thus, most of the other outsourcing challenges are closely linked to this issue. Economic problems may occur in different ways at different stages of outsourcing. Some of these problems are at the policy formation stage. Others relate to the lack of resources to cover the costs of training and treatment centers. Some problems related to the pricing of services after outsourcing (26) may lead to misuse of suppliers and imposition of costs to customers (patients) in case of primary disagreement. In response to the second research question on the relationship between the dimensions and components of outsourcing policy-making in educational centers, the results showed that components such as outsourcing causes and objectives, outsourcing challenges, advantages, disadvantages, opportunities, and risks are partially intervening. Decision-makers or actors were also involved somehow at the national, regional, and organizational levels. On the other hand, some stakeholders benefit from this policy directly and indirectly (Figure 2).

Contractor-Related Challenges

Service providers are one of the core aspects of the outsourcing process, and lack of attention to them can lead to the failure of outsourcing. There are many criteria to choose the right contractor. Some of these criteria are: 1) Long-term relationship between supplier and outsourcer, 2) Periodic evaluation of supplier performance 3) Quality of supplier management, 4) Mutual trust, 5) Staff satisfaction, 6) Risk management, 7) Providing a rule of contract and termination, and 8) Problem-

free financial performance by suppliers (44).

Human Resource Challenges

The low capacity of management and training staff to implement outsourcing in educational and therapeutic centers is one of the main challenges related to this policy. Some of these weaknesses and strengths include the inability of managers to contract (45), reduced employee morale due to changes in contract types and working conditions (46), duplication in public/private employment sector, new mechanisms of recruitment and maintenance, and inadequate management of weak human resources and personnel in general.

Structural Challenges

Policymakers acknowledge that people's health cannot be improved unless essential structures such as prominent and committed private sector (45), necessary rules and regulations (26), specific ways to monitor the affairs (22,41,45), and outsourcing evaluation are provided. Implementation of any program, including outsourcing, requires upstream rules that are formulated at the macro level. In addition, at the lower levels, the rules and regulations required must be formulated to determine the limits and powers of all departments, including operational departments. The relevant programs will be effective if the head of medical universities and relevant committees support downsizing.

Planning Challenges

Considering the challenges in the outsourcing process and planning to address them can be an effective step in making outsourcing projects more effective. Although outsourcing is an efficient and effective process by itself, it will become one of the biggest problems in the organization if it is not planned based on technical and legal principles. In this process, precise planning for contracting with insurance companies (29), planning to achieve competitive advantage, especially by using new technologies, defining and prioritizing outsourced services (40), and selecting suppliers can have benefits for outsourcing.

Discussion

There are many components and concepts involved in the proper formulation of an outsourcing policy. Therefore, a wrong decision or an inappropriate policy can lead to higher costs, loss of opportunities and customers, and even the overall decline of the organization.

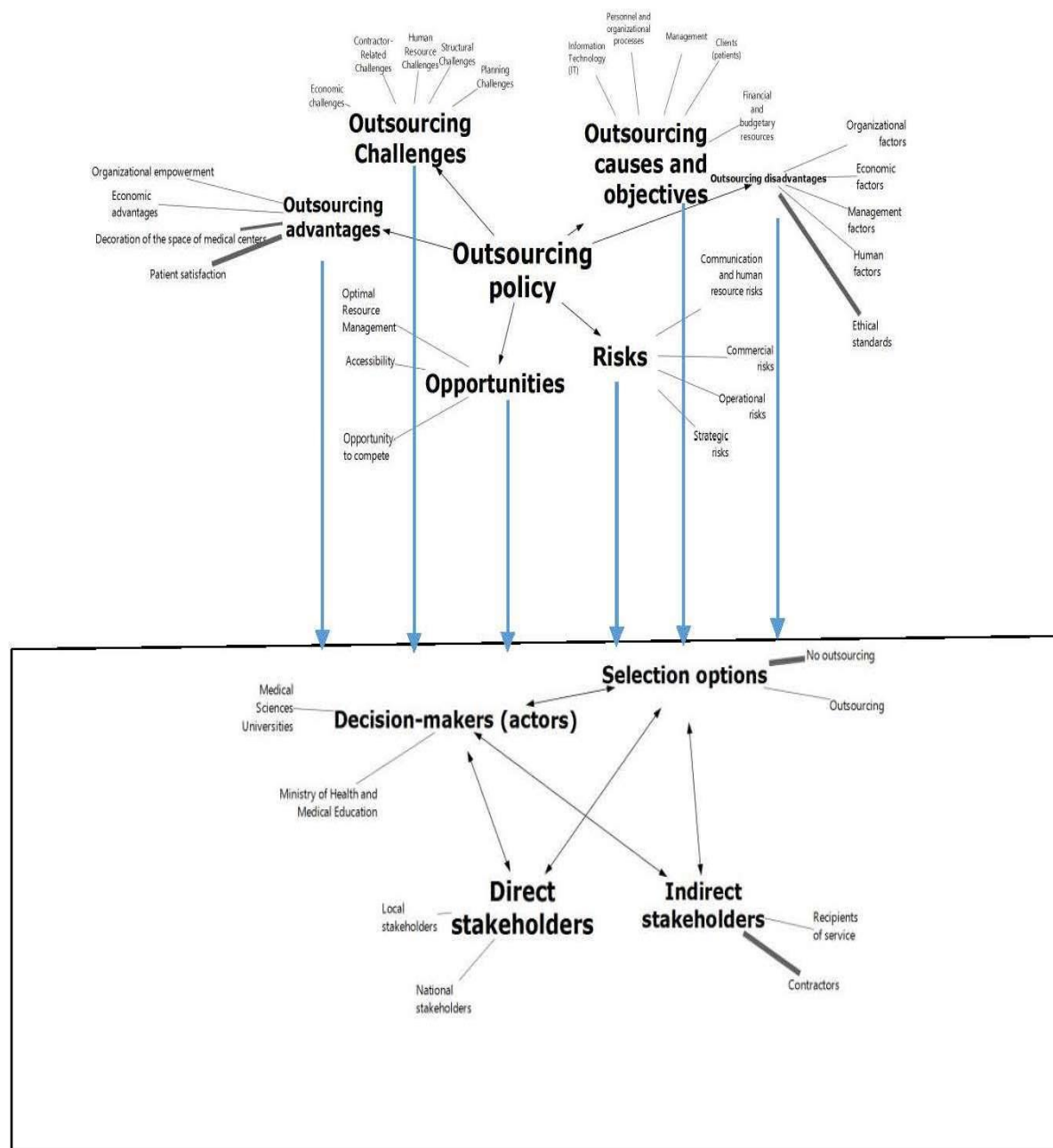


Figure 2. Outsourcing policy formation pattern

The purpose of this study was to present a policy-making model for undertaking outsourcing in education and treatment centers and to assist policy-makers in making informed decisions. The first step in forming a policy is to identify causes and objectives. Accordingly, the analysis and coding of the findings relevant to this category, led to the identification of five subcategories including financial and budgetary resources, management, information technology, personnel and organizational processes, and clients (patients) (22,30,40,42,43,45-49). The analysis of the selected studies showed that financial resources and budgets

have the highest priority in using outsourcing in educational and treatment centers, and most of these centers are outsourcing for cost savings through encouraging private sector investment to upgrade equipment and access new technologies. Consistent with the present study, the results of the researches conducted in Taiwan and Greece also identified financial factors as the most important factors affecting outsourcing (50,51). Although outsourcing is supposed to reduce costs in many cases, it is not always necessarily decreasing the costs and sometimes it even increases costs (hidden costs) (52-54). Therefore, policy-makers should

take into account all aspects, especially the hidden costs, in order to avoid failure in outsourcing policies. Among these hidden costs is the unnecessary increase in the number of medical examinations and imaging. Although outsourcing may reduce the costs of training and education, these costs are usually imposed on insurance because of poor supervision.

Based on the findings of the present study, the second category was related to challenges which was further subdivided into economic challenges, contractor-related challenges, human resource challenges, structural challenges, and planning challenges (22,29,40,42,45,46,48,49). Consistent with the present study, Rasi et al. (55) and Ahmadi Zadeh et al. (56) identified similar concepts as outsourcing challenges. Despite the appeal of outsourcing to education and treatment centers, it should be taken into account that implementation of this policy cannot be a cure for all problems and challenges and the relevant challenges should be addressed in the implementation and follow-up stages of each method.

Policy decisions should be based on an accurate assessment of the advantages, disadvantages, opportunities, and threats. By defining and identifying each of these components and evaluating them, one can make the right and logical decision in formulating the relevant policy. Although outsourcing has some advantages, including financial benefits, increased patient satisfaction, empowerment of educational and treatment centers in terms of time management, improved service, and focus on governance issues, this policy also has some disadvantages such as those relevant to employees (increased workload, reduced wages), increased patient costs, and decreased quality of service. Contrary to the present study, some researchers considered the inappropriate predicted tools as the significant outsourcing disadvantage (57, 58).

Therefore, the issue of selecting an appropriate policy execution tool is of utmost importance for the success of policy-making systems and careful investigations should be carried out to ensure that the right tool is implemented. Tools are used to execute policies and every organization requires them to implement its policies and provide solutions for social and economic problems. On the other hand, according to the theories proposed by Pressman and Wildavsky as well as Sabatier and Mazmanian quoted by Tezera, and Hudson et al., the use of broad views and participation of executives

and individuals involved in the implementation as well as the coordination among participants can reduce disadvantages and increase the success of the formulated policy (59, 60).

On the other hand, the outsourcing process provides a very good platform for all kinds of corruption such as bribing, tempting suggestions, and ignorance of the main responsibility. Governments need to be vigilant in identifying and preventing corruption in the process of outsourcing because corruption is a problem that is highly contagious if neglected and will encompass all elements of government and society (61). In addition, there are likely responsibilities for governments so that excessive transfer of power to the private sector can pose a threat to the authority of governments (62).

Since decision-making and selection of each policy have different consequences for both the actors (decision-makers) and the stakeholders, identifying actors, at public, private, national, or local levels, can help select a suitable policy.

Successful policy development is partly related to active engagement of stakeholders, reliance on scientific research, knowledge creation, and technical capacity of policymakers. As its main beneficiary, the Ministry of Health and Medical Education is responsible for the management, policy-making, planning, financing, and conducting of national programs in Iran. At the provincial level, universities of medical sciences and health services are the most important governmental organizations that provide health services to the people and meet their demands. Moreover, training centers provide people with health care. Finally, hospital staff are direct stakeholders of outsourcing in education and treatment. However, patients are the first group of indirect stakeholders of outsourcing in educational and health centers. Outsourcing can have both positive and negative impacts on these stakeholders in that their satisfaction increases by improving the quality and the quantity of services. In contrast, imposing high costs on the patients by reducing the quality will result in dissatisfaction.

One of the limitations of the present study was the lack of access to the full text of some articles in some databases.

Conclusion

The outsourcing policy will be successful if it

has clear rules and guidelines, is used to formulate broad involvement of executives and individuals, sets goals that are enforceable and accessible, and enjoys support and collaboration of stakeholders. Therefore, adopting a policy is not an endpoint of the policy process or a definitive solution to a fundamental problem; rather, policies evolve, either through gradual changes or fundamental ones. This study aimed to form an outsourcing policy in educational and treatment centers. Given that the health system has broader domains,

it is suggested that this study be addressed in a more comprehensive perspective in the field of

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Conflict of Interest

The authors have no conflict of interest to disclose.

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