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Public-private partnership in Iranian hospitals: Challenges and opportunities

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Abstract:

BACKGROUND: Nowadays, various strategies are applied by governments to control costs and finance hospitals and the health sector. Public-private partnership (PPP) option is one of these strategies. Considering the growing importance of hospitals in different communities and their problems, this study aimed to identify PPP challenges, opportunities and solutions in hospitals. This study aimed to identify the challenges and opportunities of PPP in the country's hospitals and then offered an appropriate solution to overcome these challenges.

MATERIALS AND METHODS: This is a qualitative study and content analysis approach is undertaken. The participants were selected through purposive sampling and data were collected using a semi-structured interview with experts in the public and private health sector until the saturation point achieved. Data analysis was performed through the thematic analysis of expert's statements using MAXQDA. 10 software in this sector.

RESULTS: According to the study results, 3 main themes (challenges, opportunities, and solutions), 10 sub-themes, and 32 codes were identified in relation to the public and private partnership. 4 sub-themes on challenges of PPP, 3 sub-themes on partnership opportunities and 3 sub-themes on challenges solutions were identified.

CONCLUSION: The results of this study revealed that given the discussed challenges the most important challenge seems to be not evaluated outsourcings, incorrect usage of participatory models, and inadequate and inappropriate postoutsourcing supervision, however, it appears evaluated outsourcing backed with adequate supervision could solve many current hospitals' problems.

Keywords:

Challenges, hospital, opportunities, public-private partnership, solutions

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Introduction

Today, hospitals as the most important healthcare institutions play a vital role in promoting community health and their coordinated functioning with a range of political, social, and cultural factors leads to the health of people. As this sector consumes a major part of the health budget in any country, it is particularly important to pay full attention to its function and costs.^[1] While the government funding is not enough for the growing costs of the health system, public sector hospitals are forced to reduce costs due to the compulsory government funding along with the growing costs.^[2]

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These factors have led the governments to seek various approaches to address these problems as well as methods to reduce costs, raise capital and ultimately achieve more desirable health outcomes through further and more active private partnership in service delivery and finance this sector.^[3] To benefit the capabilities of both the public and private sectors in form of a hybrid model, the public-private partnership (PPP) model was introduced in 1990 and was applied increasingly in several countries for constructive reforms in the health sector.^[4] PPP has been introduced as one of the effective approaches to deal with the enormous challenges facing the

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health sector in the 21st century and it appears to be an influential policy instrument to improve and enhance the existence of public hospitals and the quality of their services.^[4,5]

According to what discussed above, it is necessary to have a comprehensive definition of public-private partnership. However, there is no common agreement on a definition of public-private partnership, instead, there are many definitions depending on each country's economic conditions and areas of interest.^[6] The World Bank views PPP as a long-term contract between the public and private sectors to provide public services in a way that the major part of the risk and management responsibilities are on private sector and payment depends on performance.^[7] Generally speaking, PPP is a long-term contractual and partnership agreement between a public institution and private sector in which the private sector performs an organizational function or uses public assets or loans and takes the major operational, financial and technologic risks during the design, finance, construction and operation of project in return for a specified profit.^[8]

Private sector partnerships with public hospitals range from simple support services contracts (nutrition, sterilization, laundry, cleaning, and transportation) to complex stages of designing, construction, and hospital facility management which in each of these models the business risks and the contract time are different.^[9]

PPP models are applied in health and hospital systems of advanced countries such as Australia (50 public hospitals), England, Italy, Canada, Sweden, and Spain and in some developing countries such as India, China, Brazil, and South Africa and reported outcomes on efficiency improvement, quality enhancement and risk transfer to the private sector.^[6,8,10-12] However, it is necessary to note that performance enhancement by the private sector is not a definite issue; but it depends on many internal and external conditions in the organization and if the private sector is not closely monitored by the government, it may increase the marginal cost of services through unnecessary investments in expensive technology.^[13] Even though of public-private partnership has been included in academic economics for almost two decades and has been studied in various fields, but in our country, this participation in the field of health has not received much attention, so the need to study. Moreover, there is a study in this field and the obligation to present and adopt a suitable solution for working these two parts together, however, PPP models and their application in health sector and investments in hospitals are largely unknown.^[14] In addition, the current performance of public hospitals, as the main provider of hospitalization services in

the country's health system in terms of bed numbers, types and level of provided health services and also in terms of missions and responsibilities of these centers, is faced with serious challenges.^[15] While enormous amount of funds are spent annually on construction, maintenance or refurbishment of hospitals across the country, however, there is no appropriate evidence of achieving the expected benefits of the incurred costs.^[1] Overall, given the strength and opportunities for PPP mentioned above, there are also significant challenges such as justice, quality enhancement and cost control which requires to be addressed through regulatory and supervisory mechanisms. In addition, the role of government is also important in this regard. Therefore, it is necessary to explore and offer strategies for an efficient partnership between public and private sectors, transition from threats and challenges and making the most of opportunities. To this end, this study aimed to identify the challenges and opportunities of PPP in the country's hospitals and then offered an appropriate solution to overcome these challenges.

Study design and setting

This is a qualitative study which is done using the thematic analysis approach during 2017–2019. The study population contained experts of the health system and individuals who were somehow familiar with the PPP models and had a role in its development in health system. Study inclusion criteria were at least 3 years of work experience, senior executives, PPP related executive experiences and willingness to participate in the interview. In this study the participants were selected using the purposive sampling and according to the aims of the study the most informed and available individuals were selected, as either had the particular characteristic or desired phenomenon or were fully informed about a specific case. Participants were selected from hospital managers those had experiences in PPP in Isfahan, Tehran and Shiraz, Ministry of Health and Medical Education (MoHME) and medical universities. The sample size criteria in this study was to reach the information saturation level and where no new codes were obtained, sampling terminated. Accordingly, 15 health system experts were interviewed.

Semi-structured interviews were conducted according to the topic guide; in a way that overall questions were asked to start the interviews with and it continued based on the answers. Topic guide was developed according to in-depth interview with two experts from MoHME and Isfahan medical university. It was piloted with two other participants from hospital managers. The questions were not changed. Participants were interviewed in prescheduled appointments in their comfortable locations over 5 months. Therefore, after the coordination was completed, all the interviews were conducted at

the participants' workplace with the duration of the interview varying from 20 to 60 min depending on the participants' preferences and conditions. The interviews were audio-recorded with the consent of participants and were immediately transcribed at the end of each interview to be informed of the data saturation and increase the accuracy of the transcribed texts.

The data rigor and trustworthiness were assessed using four criteria of credibility, transferability, dependability, and confirmability. To ensure the credibility of the data, a number of methods such as triangulation, member check, allowing sufficient time for data collection, and prolonged engagement with data was applied. The research transferability was achieved through interviewing various participants from different sections and thick descriptions. To attain credibility, the study process was provided to qualitative researchers and they confirmed the results of the study after reviewing its process. Finally, the coding and extraction of themes from interviews were conducted by two research team members who did not have any conflict of interest with the research.

Thematic content analysis approach was applied to analyze the data in this study. Thematic analysis is a method of content analysis in which classification is done based on the topics. For this purpose, the interviewer transcribed the text after the completion of each interview. The interview text was read several times to get an overall understanding. Finally, the interview texts were entered into MAXQDA., version 10 for classification and the preliminary codes were obtained. Then by the research team cooperation and applying their opinions, the final codes and study themes extracted and ultimately themes and sub-themes were classified.

To adhere to the ethics of the study while obtaining the informed consent of the participants, they were assured that participation in the study, as well as audio recording of interviews, are optional and their information will remain confidential with the researcher and they have the right to withdraw from the study at any time.

Results

Of the 15 individuals who participated in this study, 13 were male and 2 were female and their work experience was 18 ± 5.6 years. According to the results of study 3 main themes were obtained containing "challenges of public-private partnership in hospitals", "opportunities of public-private partnership in hospitals" and "challenges solutions" where each theme contained some sub-themes. The findings of this study using content analysis resulted 4 sub-themes for "challenges of public-private partnership in hospitals" containing: Structural challenges, legal challenges, financial

challenges, and service provider challenges; 3 sub-themes for "opportunities of public-private partnership in hospitals" containing: Finding alternative resources, efficiency increase, and management improvement; 3 sub-themes in relation to "challenges solutions" containing: contractual solutions, management solutions, and fundamental solutions; and finally 31 codes were obtained from sub-themes which are shown in Table 1.

Theme 1 - Challenges of public-private partnership in hospitals in Iran

The statements of participants revealed that structural problems and challenges are one of the main causes of failure in PPP projects. The majority of participants commented that not considering the win-win conditions by the government when signing a contract is one of those challenges.

One of the participants stated:

"Another challenge is that over the 1st year the hospital manager works and gets along with you very well because he/she wants you to set the ball rolling but once it is done then over the 2nd year the manager starts to mess with you and continues this until you say I cannot continue this anymore and they will look for someone else to replace you and this mistake happens in many hospitals; they mess with the private sector until that individuals cannot continue and again once the next person comes he/she cannot continue too. They always say why that person gains but not me, see, all the public sector managers think this way. He/she (manager) is ready to pay that cheque little by little by him/herself but does not want to accept that the budget of this section is separate and once insurance (companies) pay them then he/she must pay the money here (private sector) but he/she spends the money somewhere else and the outsourced sector gets harmed and this is the challenge that our managers still consider the private sector as a thief not a colleague, they do not kind of consider the win-win and fair relationship" (Participant 9).

However, many participants believed that not evaluated and tasteful outsourcings is one of the major structural challenges in this issue. One of the top hospital managers stated in association with this issue:

"In fact, another challenge that we have is that we don't get the right method for privatization and we do it tastefully and selective, that is we only outsource the loss-making sectors" (Participant 6).

Some of the participants expressed the role of "payment delays" to the private sector in creating financial challenges, as one of them said:

"The payments is one of the weaknesses of this partnership and not only happens in our section but you can see this problem

Table 1: Themes, sub-themes, and codes obtained on the identification of challenges and opportunities of public-private partnership in hospitals in Iran

Themes	Sub-themes	Codes
Challenges of public-private partnership in hospitals in Iran	Structural	Public sector intervention
		No attendance of expert contractors in tenders
		Not considering win-win conditions in outsourcing by public sector
		Not evaluated outsourcings
		Lack of coordination between outsourced sectors
		Some of the outsourced hospitals being educational hospitals
	Financial	Profit oriented private sector
		Delays in payments to the private sector
		Private sector uncertainty of return on capital
	Legal	Restrictive laws and regulations
	Service provider	Pseudo-privatization of some private companies
		Use of nonspecialized personnel in the private sector
		Lack of justice and access for the general public
Resources management		
Opportunities of public-private partnership in hospitals in Iran	Finding alternative resources	Entrepreneurship and economic turnover
		Revenue increase
		Costs reduction
	Efficiency increase	Responsiveness and satisfaction increase
		High productivity of the private sector
		Public sector agility
Solutions for public-private partnership challenges in hospitals in Iran	Management improvement	Less concerns for managers
		Contractual
	Contractual	Clarifying both sectors' expectations while signing a contract
		Specifying minimums and maximums in auctions and tenders
		Long-term contract
		Managerial
	Managerial	Encouraging expert and private sector contractors to bid for tenders
		Evaluated privatization
		Job supervision
		Considering the symmetry of public-private partnership models with the type of service
Fundamental solutions	Financial infrastructure	
	Legal infrastructure	
	Cultural infrastructure	

in all outsourced sections of the hospital and this delays in payments may reach up to 1 year” (Participant 10).

Another participant noted the role of “private sector uncertainty about the capital return” as one of the main challenges:

“Private sector needs a support here, an assurance for the capital that is going to be invested and if there is no assurance and support would the private sector get into this job? Why on earth they should get into this when the past experiences show that this is not profitable for the private sector and there is no assurance and individuals and responsibilities are continuously changing, well, of course (private sector) will not do this and will not get into this area. Is there any sustainable assurance? No one has ever done this. Therefore, the private sector is no longer willing to do this. If (public sector) wants to sign a long-term contract (the private sector) would no longer trust that this contract will remain for 20 years and will be supported” (Participant 13).

The service provider challenge is another challenge of PPP in hospitals. One of the participants commented

recruiting nonspecialized personnel in private sector for service delivery:

“The biggest challenge of this partnership is human resource, because once the private sector steps into this partnership usually recruits some individuals who do not have enough expertise to do the jobs or they employ their relatives and overall they employ unskilled and ineffective personnel” (Participant 5).

Theme 2 - The opportunities of public private partnership in hospitals in Iran

The statements of participants showed that finding alternative resources is one of the opportunities of PPP for hospitals. The biggest issue that all the participants agreed on was revenue increase and cost reduction in outsourced sections. One of the participants expressed that:

“Another argument that exists is the money-making motivation in which sometimes hospitals outsource a section because of financial problems, they calculate the costs and revenues of a

section and see it makes loss or even if it is profitable, it is not much so they decide to outsource that section and the private sector solves the problem by its own arrangements and methods to increase customers even though it has been making loss and then pays a rent to the hospital and the hospital makes a profit or if it has been profitable it makes more profit compared to being managed by the hospital" (Participant 4).

A large portion of the participants stated that the main opportunity of PPP for hospitals is reducing the concerns of public hospitals managers. One of the hospital managers expressed that:

"Me as a hospital manager can focus on major and strategic decisions about the hospital and more important hospital issues instead of focusing on that service, development plans that need to be done, quality improvement could be better done and all my thinking is not distracted because I have a good private sector that maybe is doing my job even better than myself and my focus is on more important activities and in my opinion this is a very helpful issue" (Participant 13).

Theme 3 - Solutions of public-private partnership challenges in hospitals

According to the accomplished content analysis, many participants commented "long-term contracts between two sectors" as the contractual solution and believed that this is an approach to solve the financial challenges and private sector uncertainty on the capital return. One of the participants stated that:

"if we outsourced a section we should forecast the future and this must be a long-term contract and assure our contactor about the capital return so that it motivates them to do the job" (Participant 1).

Another approach to solve the PPP challenges in hospitals is the public sector managerial approach. More than 90% of the participants noted the job supervision in association with this issue. One of them stated that:

"Supervision is one of the problems in the hospital and this supervision is an approach itself, when you outsource a unit or a section and you know that they have obligations based on the terms of contract so there should be an on time and correct supervision and assessment and follow up and check out the documents and these can be resolved at the hospital level. For instance, if I tell the private sector that you were supposed to do that job up to that date and bring it for us, when the private sector sees that the job is being followed up and it is wanted from top levels and the contract has a supervisor so naturally they adhere to the contract terms and do it on time" (Participant 3).

In addition, some of the participants believed that the evaluated privatization is one of the important managerial approaches to solve the PPP challenges:

"If an evaluated privatization takes place and in every case and section they ask an expert in that field to attend the outsourcing process then in my opinion the private sector would have a more successful performance than the public sector" (Participant 10).

Discussion

Applying PPP in different countries has been followed by different aims, motivations, and reasons. The primary and main aim of PPP is better access and quality service provision for the poorest and the most deprived people.^[16] The results of the current study showed that one of the most important sub-themes that the majority of participants agreed on that caused an increase in failure of partnership projects is tasteful and not evaluated outsourcings such that one of the main and fundamental causes of failure in PPP projects in hospitals is the lack of using experts' opinions in the section being outsourced and ignoring scientific evidences and scientific prioritization in outsourcing process. In addition, Roehrich *et al.* stated that: one of the challenges facing the PPP projects is the lack of information about the nature of contract and the lack of a correct information management, the importance of learning and applying past experiences are emphasized too but limited repeatability of PPP is one of the obstacles.^[17] Moreover, Ahmed and Nisar stated the lack of information and reliable knowledge in selecting the appropriate partnership model is one of the problems and challenges of partnership projects.^[18]

The public sector intervention in the outsourced section affairs is another structural challenge resulted from the current study. The results show that the public sector intervention in the outsourced sector's administration and sometimes imposing some individuals to be employed in the outsourced section causes intervention and makes the private sector confused. Sometimes the hospital officials tended to impose the current workers to the winner of tender because of getting trained and experienced and also concerns about their job security and livelihood. As a result only the name of the company changed after the bidding and these results are in line with the results of the current study.^[19]

One of the financial challenges that expressed by the majority of participants, whether in the public or private sector, was the delay in payments to the private sector, which lowers the incentives to continue the job by this sector. In fact, the private sector believes that government support in privatization or outsourcing services in the health sector is weak and failure to pay claims on time causes the contractors and investors to face serious crises and difficulties in liquidity to purchase laboratory raw materials and equipment and required medicine

and even paying their staff salaries. On the other hand, government effort to attract foreign investors faces the same problems in this sector and the foreign investors are waiting for government guarantees to enter. Therefore, the lack of government guarantee and assurance is one of the investment obstacles and unwillingness by the private sector to do this job. Rasi *et al.* stated in their study that one of the challenges and problems of outsourcing hospital services is economic challenges and issues including lack of financial resources as well as insurance-related issues which is in line with the results of this study.^[20]

The findings of the current study indicated that the lack of resources (human, physical and financial resources) in the public sector and the better management of available resources by the private sector is one of the reasons that the public sector is moving towards the partnership with the private sector. In addition, in many countries the limitations of the general budget of government leads to inviting the private sector to enter a partnership and in order to finance, long-term PPP contracts to construct and operate huge capital intensive projects such as hospitals are signed.^[21] Moreover, Barretta and Ruggiero (2008) in analysis of six PPP projects in health sector in Italy found that in most cases, entering a PPP could be very cost effective compared to the traditional general finance, because the public sector lacks required resources to invest.^[22]

The findings revealed that cost reduction of a hospital or a unit of that as well as hospital revenue increase is one of the important causes that leads the public sector managers' willingness towards partnership with the private sector. The results of the study by Sadeghi *et al.* showed that PPP pattern is a powerful and efficient tool for a hospital and using PPP methods effectively enhances quality, cost reduction, better resource management and more efficiency which matches the results in the current study.^[23] In addition, cost reduction and introducing innovative approaches to health service provision are some of the reasons of using PPP in health sector in Spain. However, the study showed that privatization leads to increased costs of healthcare and direct costs for patients. Moreover, privatization improves accountability, enhances coordination in different levels of healthcare and increases performance of public hospitals.^[24]

The results of this investigation showed that creating incentives and encouraging the private sector to participate is one of the approaches to attract private sector and experienced contactors to partner with the public sector. In fact, it can be said that private sector investors need appropriate incentives and encouragements to join partnership projects in the health

sector. These incentives may include low rate loans, low-risk projects as well as gaining a reasonable profit. If these incentives are not provided or not in a form to create enough motivation in investors then the investor would not tend to enter such projects and would choose other fields and sectors to invest. Torkan in a paper discussed some issues such as assisting investors over taking possession, granting permission to use the land for infrastructure development, appropriate supportive facilities, tax exemptions, exchange guarantee, and providing auxiliary equipment during the technical and performing stages as the effective factors in creating private sector partnership motivation and investors' support in developing infrastructures.^[25]

Another solution for the PPP challenges is evaluated privatizations. The results of the study indicated that assistance from experts in public partnership field and experts in the section being outsourced could be a solution for the challenges arise after outsourcing. In addition, training personnel and professionals in health sector for PPP and outsourcing is a significant step towards solving existing challenges. In fact, public and private partnerships need skills and special trainings due to their complicated structures. The lack of skills in public sector is counted as the major obstacle in PPP development in many countries. A variety of skills incorporating different aspects including project identification, project's economic appraisal, financial analysis, risk assessment, procurement, contract documentation, contract negotiations and contract management. Therefore, for the successful implementation of PPP programs the government needs to create appropriate programs to develop required skills for those involved in development and implementation of partnership projects.^[26]

However, one of the most important solutions is the public sector supervision on the private sector's job process which should be layered from operational levels to senior management levels. Chou and Pramudawardhani in their research identified government control and supervision as one of the key factors in successful implementation of PPP projects.^[27] In addition, the most important contributing factors in implementation and deployment of PPP projects in feasibility study of PPP in health sector in Philippines are reported as mutual trust, legal and policy framework, institutional framework, contract management and the existence of monitoring and supervision system.^[28] Moreover, this supervision and monitoring can have a different framework in every country; for instance, the supervision on the private sector performance in Australia is done by The Australian Council on Healthcare Standards and in Lesotho by The Council for Health Service Accreditation of Southern Africa. In Spain, the hospitals are audited

by the local government in addition to the external inspectors.^[29]

Limitation and recommendation

Subjectivity of the findings is the main limitation of this research. In other words, the findings are mostly dependent on the mentality and experiences of interviewees.

Conclusion

Overall, based on the results of the studies, PPP could be an appropriate approach for financing, especially in hospitals and their performance enhancement, given the required conditions are prepared, however, different PPP models face serious challenges in their sustainability in the country's health sector. PPP opens the way for capital to flow into the health sector and given the existing laws and capacities could be attempted to be developed over the country. Overall, it can be said that what can make a PPP successful or unsuccessful and affect the public sector especially in hospitals, is the primary goal of this partnership. If the primary purpose of this job is clear and policy makers and public sector managers have enough domination on regulations and partnership patterns. Moreover, monitoring and win-win relationship of both parts should be considered then PPP could have a beneficial and appropriate effect on the current conditions of hospitals, shortage of resources and liquidity in hospitals, and productivity increase in the health sector.

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Conflicts of interest

There are no conflicts of interest.

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Interview Guide

Title: Public private partnership in Iranian hospitals: Challenges, opportunities and solutions

The present study was conducted with the aim of “Public private partnership in Iranian hospitals: Challenges, opportunities and solutions.” Public-private partnership in this study is a mechanism that use the capacities of the private sector including) knowledge, experience and financial resources) in the public sector to provide infrastructure services. According to studies conducted in this field, public-private partnership is divided into (7) models including: Services provided, outsourcing, Management contracts, lease agreement, Financial Initiative Contracts, innovative financial contracts, exclusive financial resources and Complete privatization. That each of these models transfers different degrees of risk and responsibility to the private sector.

The definition of each of these models is briefly mentioned below:

PPP Modeles	Definition
Services purchasing	The government pays a private institution to perform certain tasks. These tasks may be performed in or out of the hospital
Outsourcing	The government pays a private institution to manage one or more special department and sections in hospital. And provide all required services
Management contracts	The government pays a private institution to manage public hospital And provide all required services
Lease agreement	A private institution pays the government to rent a public hospital and provide services. Instead, the private institution acquires the right to collect revenue from its operations.
Exclusive financial resources	In this contract, which is often seen in the form of a private alliance. Takes responsibility for all stages of the hospital project to provide government services. The private sector will be responsible for investing, establishing, managing and providing nonclinical services such as nutrition, security, laundry, etc. And the provision of the main services of the hospital will be the responsibility of the public sector, and this contract is mainly long-term
Financial initiative contracts	The public sector grants legal permission to the private coalition to enter into secondary financing, design, construction and financing contracts for the hospital. The private sector coalition consists of a number of organizations including facility managers, banks, investors and sponsors. Payment to these organizations is made after the completion of the construction phase and when the service is available to the public. During the operation of the hospital, the income from the coalition is obtained from providing services to the people
Complete privatization	Under privatization contracts or the complete deprivation of the public sector, ownership, operation and maintenance, and large investments and commercial risks of the public hospital are transferred to the private sector

According to the above-mentioned explanations, the following questions have been created in order to understand the challenges and opportunities for participation between the public and private sectors and to provide solutions to deal with the challenges and problems. Help this project.

Interview guide

1. What is your opinion about the strengths of public-private partnership? And what opportunities can it create for the hospital later?
2. In your opinion, what are the weaknesses and challenges of PPP? And what challenges can it create?
3. Do you suggest a solution to the challenges and problems raised and improve the efficiency of PPP and reduce the problems in hospitals?
4. Which of the following models of public-private partnership are used the most? What is the reason for this?