

Study on the Impact of Implementing Public-Private Partnership (PPP) at Hasheminejad Kidney Center

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Abstract

Background and Objectives: As with most countries, in the developing communities, providing high quality services in the field of health care is affected by limited financial resources. Applying the positive stimuli germane to the private sector to public hospital may be one solution to the public sector's problems, and the health care system, in general, for reducing hospital construction and operation costs. One example can be designing proper cooperation contracts between public hospitals (non-governmental partner) as the holder, and a capital managerial proficiency, and large-scale facilities in that order. This study aimed at evaluating the benefits of implementing the public-private partnership model to Hasheminejad Kidney Center, an academic hospital, with the Moheb non-governmental organization in Tehran in 2013.

Methods: The survey population consisted of managers and staff of Hasheminejad Kidney Center in Tehran (total 50). Questionnaires were distributed to the study population, and the resulting data was subjected to descriptive analysis in all five known impact domains for public-private partnership.

Findings: The managers' perceptions in all five public-private partnership domains were concluded as beneficial. Among these, quality of hospital services scored the most benefit (average = 79.8 %), financial enhancement stood at 78.4%, and benefits to the staff averaged 78.3%. Most importantly, the participants also found the impact of PPP on education and academic to be very positive (75.1%).

Conclusions: The results of our survey on this uniquely durable prototype of PPP between an academic hospital and an NGO confirm its decisively positive impact on all studied domains, including not only the expected quality of care and financial aspects, but convincingly for educational services as well.

Keywords: Public Private Partnership (PPP), Management, Hospital, Education, Health care, Medical education

Background and Objectives

The sum of influential elements in health care services is believed to fall within five main categories considered fundamental to any health care organization. These infrastructures include resources, organizational structure, management, economic support, and service delivery. Among them, economic support (or providing financial resources for service delivery programming) and management are the most critical [1].

Annual global statistics in 2008 showed that out of

the US \$57 trillion revenues of the global GDP, \$4700 billion were spent on health care. According to the World Health Organization (WHO) report (2000), health care costs rose from 3% of the world GDP in 1950 to 8 % in 1999. Factors like rapid growth of technology, rising wages for educated manpower, and high cost of medications and surgical procedures, as well as the financial burden of constructing newer buildings and their maintenance can be implicated in this growth [2].

The ever increasing cost of health care services, which frequently surpasses the inflation rate, has also caused budget impasse and difficulties in funding for these services, where 30 to 50% of the resources are spent particularly in hospitals, with the main burden of funding falling on the government [3].

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The efficient management of public hospitals as the most costly link in the health system has been required by scholars and policymakers. However, due to limited fiscal resources and the typically late return on any investment in the health sector, as well as the high cost of hospital construction, expensive equipment and shortage of skilled manpower and specialists, development and expansion of hospital facilities has been very time consuming and unattractive to most naive private holdings, making the optimum utilization of available resources by means of choosing best managerial solutions and strategies essential [4,5].

In Iran, both the public and private sectors contribute to providing hospital care, with the public sector, under the supervision of the Ministry of Health and Medical Education, bearing the brunt. Financing health services has always been associated with many difficulties in Iran as in most other countries, making the fiscal issue a major bottleneck to the development of hospitals [6]. The Public-Private Partnership (PPP), introduced in 1990s, is one approach to overcome some constraints. PPP attempts to adopt some principles of the private sector, including mindfulness of revenues and economic balance through solid financial management, for solving some of the major problems in the public sector [7,8].

The public and private sectors are made in natural competition in delivering health services, attracting care seekers, and collecting the revenue all over the world. In the PPP context, however, this competition can be converted into cooperation and partnership to overcome many shortcomings of each sector [9].

Public-private partnership is a contractual agreement between the governmental entity (federal, provincial or local) and the private sector. By this agreement, the skills and assets of each sector (public and private) are shared to bring services and facilities to the public. Under such an agreement, the contractors share both risks and potential benefits going with the services and facilities [10].

There are a number of studies regarding PPP from different parts of the world. Hartley and Parker (2001) emphasized the necessity of comparing costs and benefits of such partnership with the costs and benefits of running a solely public sector [11]. Vides (2005) showed that using a PPP model can increase benefits and limit the cost of development, marketing and provision of medications for tropical diseases among some of the poorest populations in the world compared to a pure government sponsored model [12].

Grimsey and Lewis (2005) indicated that before the implementation of PPP model in the UK, about 75% of large infrastructural projects were accomplished with delay and outgrowing their budget; however, by implementation of this model, 75% of projects have been accomplished on time and consistent with the allocated budget [13].

Between 1990 and 2009, 1340 PPP projects valued over \$253 billion annually have been implemented in the Europe alone [14]. Reviewing the available data on PPP in Iran, it is evident that the PPP model is underutilized or at least rarely mentioned in the health-related literature in this country. So far, most experiences on decentralization in health services have been limited to either complete relegation to the private sector or outsourcing [15].

To overcome the economic, managerial, and organizational constraints, and mindful of the discrepancies of public and private enterprise, Hasheminejad Kidney Center, a well-known academic tertiary care center affiliated to Iran University of Medical Sciences (IUMS), has implemented a rare instance of firm and durable PPP with a non-governmental organization (NGO), named Moheb. This study aimed to examine this unique experience based on the independent analysis of the viewpoints of all managers and staff involved in this process.

Methods

Study Design and Data Collection

The present survey was conducted in a cross-sectional descriptive design between March and June 2013. The research population consisted of managers and staff of Hasheminejad Kidney Center in Tehran, who contributed to the development of the PPP (N=50).

Data Collection Tool

Our tool for data collection was a questionnaire designed by the researchers, consisting of demographic information and questions aimed at evaluating the perceived impact of public-private partnership. In demographics, gender, age, education, work experience, type of activity and employment status were recorded. In the second section, there were 17 questions dealing with the five areas of finance, services, personnel, administration and education. The participants' viewpoints were quantified using a 5-point Likert type psychometrics rating scale (where 1 = "Very little" to 5 = "Very much").

Validity and Reliability

Validity of the questionnaire was assessed based on expert opinion. Thus, the developed questionnaire was presented to seven professors and executive directors in this field and revised based on their opinion before being finalized. Internal consistency reliability of the questionnaire was tested and approved by calculating a Cronbach's alpha coefficient of 0.91.

Data Analysis

The data on 5-point scale was transferred to a 100-point scale. Mean and Standard Deviation of the scores were calculated using SPSS Version 18 Software.

Ethics

All members of the study group were briefed about the survey, and their verbal consent was obtained for participation in the study. The respondents were assured of the anonymity and confidentiality of their responses.

Results

Demographic Data

Of the total participants, 34 (68%) were female and 16 (32%) were male; 2 (4%) held PhD, 2 (4%) Master's, and 39 (78%) Bachelor's degrees, and the remainders included 4 (8%) with Associate degrees and 3 (6%) with Diplomas.

Descriptive-statistical analysis

All five benefit areas of public-private partnership were perceived to be in the very favorable range. Services domain (average = 79.8%) was perceived as receiving the greatest boost, followed by financial benefits (average = 78.4%), personnel benefits (average = 78.3%), and educational benefits (average = 75%).

Discussion

The present survey aimed at evaluating the benefits of implementing the public-private partnership model at Hasheminejad Kidney Center in Tehran. According to the study findings, the public sector has indisputably gained from the PPP model in all of the five measured areas, i.e. finance, services, personnel, administration and education. The results of this study are consistent with those of similar previous reports, which concluded that the public sector has benefited from introduction of skills and capabilities from the private sector.

One area evaluated was financial benefits to the

Table 1 Demographic characteristics of the participants

Descriptive statistics	No.	%
Gender (n = 40)		
Female	34	68
Male	16	32
Marital status (n = 40)		
Married	31	62
Single	19	38
Level of education (n = 40)		
Diploma	3	6
Associate degree	4	8
BS	39	78
MS	2	4
PhD	2	4
Work experience (n = 40)		
1-10 years	6	12
11-20 years	29	58
21-30 years	15	30

public sector. The current study indicated that based on the managers' viewpoint, by implementing PPP between Hasheminejad Kidney Center and Moheb NGO, the public hospital has significantly gained financially by increase in revenues, sharing financial risks, and attracting additional investment in its construction, as well as renovation and garnering of new equipment. Therefore, considering the challenges facing the government in financing the health care system, taking advantage of collaboration from the private sector in infrastructural projects on providing services can be a strategy for reducing costs in the domains of construction, operation and delivery of services. Increasing the financial benefits of a hospital can bring an increase to investment in different areas of it, including services, personnel and training.

One of the other benefits of PPP was in the domain of services delivery. According to the managers' viewpoint, comparing the current benefits with those prior to the implementation of this model indicates a significant growth in this domain. Benefits in this domain have been perceived as having the most positive impact compared to the other domains of interest.

Benefits in the area of services were focused on both quantity and quality aspects. Full-time presence of physicians has led to acceleration and enhancement of clinical services. Similar improvement in access to para-clinical diagnosis and therapeutic services has led to saving the patients' time at Hasheminejad Kid-

Table 2 Score Mean and Standard Deviation of the benefit domains of PPP at Hasheminejad Kidney Center

Survey question	Mean	SD
Financial benefits	78.4	13.6
Has partnership with the private sector (Moheb) brought increased funding for Hasheminejad Kidney Center?	81.2	
Has this partnership provided the chance of sharing the financial risks for Hasheminejad Kidney Center?	76.8	
Has this partnership caused to more private investment (Moheb) for construction and renovation of Hasheminejad Kidney Center?	77.6	
Has this partnership made it possible to purchase new equipment by the private sector?	78.4	
Service related benefits	79.8	12.2
Has this partnership accelerated the clinical service delivery by the presence of the full-time doctors?	81.6	
Has this partnership caused the quality improvement in the clinical service delivery by the presence of the full-time doctors?	77.6	
Has complimentary diagnostic and therapeutic services, led to saving time of the patients of Hasheminejad Kidney Center, due to not referring the patients to other medical centers?	82.4	
Has this partnership helped to reducing the waiting times for the patients requiring hospitalization and surgery in Hasheminejad Kidney Center?	80	
Has this partnership helped to increasing the number of clients in HashemiNejad Kidney Center?	65.2	
Has this partnership led to reducing the patients' out of pocket costs by permitting the use of basic and complimentary insurances?	83.6	
Personnel related benefits	78.3	16.3
Has this partnership been involved in the transfer of the knowledge and experience to staff (in the context of the way of service delivery, hotelling, come up with new ideas by participating in seminars, etc.) in Hasheminejad Kidney Center?	78	
Has this partnership increased the personnel's motivation as a result of a positive working competition by the private sector (Moheb)?	78.8	
Managerial benefits	77.7	16.5
Has revenues of the partnership provided the chance of obtaining more up-to-date and efficient equipment for the management of Hasheminejad Kidney Center?	78.8	
Has revenues of the partnership proceeded to improving the official departments and spaces of Hasheminejad Kidney Center?	76.4	

Table 2 Score Mean and Standard Deviation of the benefit domains of PPP at Hasheminejad Kidney Center (*continued*)

Survey question	Mean	SD
Has revenues of the partnership proceeded to improving the clinical sections and spaces of Hasheminejad Kidney Center?	78	
Educational benefits	75.1	15.6
Has this partnership led to the transfer of knowledge from the expert physicians working in the private sector to the personnel and students of Hasheminejad Kidney Center?	75.2	
Has this partnership led to promoting the trainings due to better utilization of space and proper equipment (up-to-dated) for the personnel and students of Hasheminejad Kidney Center?	75.6	

ney Center as a direct result of not referring patients to other medical centers. This reduction in the waiting time of the patients requiring hospitalization and surgery at Hasheminejad Kidney Center resulting from partnership with Moheb, in turn, has caused increase in the number of clients and reduce the out-of-pocket payment by the patients being served at Hasheminejad Kidney Center by more thorough application of basic and supplementary health insurances.

Another area of benefit was related to the personnel who were perceived to show growth as compared to before implementation of the PPP model. This survey showed that motivation in the personnel has been boosted as a result of competitors' ambition instilled by coexistence with the private sector.

In the administrative domain, revenues of the partnership have helped optimize and renovate administrative and clinical spaces, and provide top-line efficient equipment for the administrative department of Hasheminejad Kidney Center.

In the field of education and training, this partnership has led to greatly facilitated transfer of knowledge from the expert physicians remaining within the public hospitals' premises and actively involving with the trainees and patients outside the routine academic work hours, mainly due to this fact that Moheb has now brought its private practice incentives into the merged public-private practice setting [16].

New sources of income and revenues generated by the partnership with Moheb have led to totally renovating and upgrading the academic spaces and training hospital equipment, much to the benefit of all levels of alumni, whether medical or nursing students, and at all levels of training from undergraduate to residents and fellows [17].

Conclusions

The findings of this survey are of prime significance, not only because the partnership between Hasheminejad Kidney Center and Moheb NGO is the first and most longstanding public-private partnership of its kind in the Iranian health care system, but also because its results clearly indicate that benefits to the public sector have multiplied consequent to implementation of the model. It seems that implementing PPP model can also help develop some areas of the health services, as it has done in different fields of economy, before. Overall, we can conclude that a managed PPP can even aid seemingly unlikely aspects of the public health sector such as education and personnel management very much, and help the public hospitals overcome many of their age-long shortcomings and more recent constraints.

Abbreviations

(PPP): public-private partnership; (NGO): non-governmental organization; (IUMS): Iran University of Medical Sciences

Competing Interests

The authors declare no competing financial

Authors' Contributions

PS carried out the study design, participated in developing the questionnaire, and revised the manuscript. MB and EA were involved in the study design, developing the questionnaire, analyzing the data, and drafting the manuscript. All authors have read and approved the final manuscript.

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