

<b>Access this article online</b>
Quick Response Code:

Website: <a href="http://www.jehp.net">www.jehp.net</a>
DOI: 10.4103/jehp.jehp_1312_20

# Collaboration between the government and nongovernmental organizations in providing health-care services: A systematic review of challenges

Mohanna Rajabi, Parvin Ebrahimi, Aidin Aryankhesal

## Abstract:

**BACKGROUND:** Given the expanding range of health influencing factors, increasing expectations from the health systems, and general challenges such as insufficient resources, the health services needed by people cannot be provided completely by the governments alone. Therefore, nongovernmental organizations (NGOs)-government collaboration is considered a common approach in health-care provision for different communities. Since the NGO-government collaboration is complicated and usually influenced by many challenges and issues, the present study was conducted to identify collaboration challenges between the government and NGOs in providing health-care services.

**MATERIALS AND METHODS:** Using a systematic review method and searching in ISI Web of Science, Scopus, PubMed, and Embase databases, using related keyword/terms, between March 2020 and June 2020, studies on NGO-government collaboration in the health area were collected without time limitation. After completing the article selection process, those articles that consistent with the research purpose were chosen for the final analysis.

**RESULTS:** From 4236 initially collected studies, 16 studies were chosen for the final analysis. Based on the content analysis of the selected articles, 70 challenges were identified in the NGO-government collaboration to provide health-care services. These challenges were divided into five main themes: structural issues, process issues, issues related to roles and responsibilities, trust and communications issues, and control and power relation issues and 11 subthemes.

**CONCLUSION:** The present study provides significant challenges by NGO-government collaboration in providing health-care services. Awareness of these challenges plays an important role in promoting such collaborations and enables these organizations to highly exploit the strengths of each other, resulting in a collaboration with win-win situation.

## Keywords:

Challenge, government, health system, intersectoral collaboration, nongovernmental organization, public-private partnership

## Introduction

Nongovernmental organizations (NGOs) are active in different fields to achieve cultural, social, charitable, specialized, and industrial objectives.<sup>[1,2]</sup> With a strong sense of responsibility for community issues, they attempt to assist

in problem resolution and promotion the society.<sup>[1-6]</sup> Being considered as a social capital to governments,<sup>[7]</sup> NGOs could utilize their full capacities to collaborate with the public sector, and to provide different groups of society with the services required in situations, where governments are not able to meet the needs of all society groups due to technical or administrative

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

For reprints contact: [WKHLRPMedknow\\_reprints@wolterskluwer.com](mailto:WKHLRPMedknow_reprints@wolterskluwer.com)

**How to cite this article:** Rajabi M, Ebrahimi P, Aryankhesal A. Collaboration between the government and nongovernmental organizations in providing health-care services: A systematic review of challenges. *J Edu Health Promot* 2021;10:242.

Department of Health Services Management, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran

## Address for correspondence:

Dr. Parvin Ebrahimi, Department of Health Services Management, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran. E-mail: [ebrahimi.p@iums.ac.ir](mailto:ebrahimi.p@iums.ac.ir)

Received: 27-09-2020  
Accepted: 28-11-2020  
Published: 30-06-2021

incompetence, or more importantly, lack of financial resources.<sup>[7-10]</sup>

NGOs operating in 12 areas of activity<sup>[11]</sup> and due to the exclusive nature of activities performed in the health sector, they have long focused on this significant area.<sup>[2,12-15]</sup> and due to the exclusive nature of activities performed in the health sector, they have long focused on this significant area.<sup>[2,12-15]</sup> Differences observed between NGOs and government agencies that are active in the health sector should be considered in addition to the inherent characteristics and capabilities of NGOs, including smaller sizes, simpler management processes, higher levels of practical freedom, and lower costs. Moreover, they are less influenced by the political decisions of the governments, show higher operational flexibility, are more committed to implementing programs and achieving defined goals, and are more accountable to various needs of communities.<sup>[2,3,11,16,17]</sup> Altogether, these characteristics have rendered NGOs to be always in the focus of planners and decision-makers as invaluable tools to promote the health of society.<sup>[2]</sup>

Given the expanding range of health influencing factors, increasing expectations from the health systems, and their general challenges, such as insufficient human and financial resources, the health and medical services needed by people cannot be provided completely by the governments alone.<sup>[18-23]</sup> Therefore, the collaboration of NGOs with the public sector is inevitable in health-care provision activities for different communities, particularly the poor people, specific vulnerable groups, suburban populations, disabled individuals, and the elderly.<sup>[24,25]</sup> Several studies have acknowledged the positive effect of NGO-government collaboration on the health enhancement and the promotion of programs developed for controlling and preventing diseases such as AIDS, tuberculosis, and malaria in different communities.<sup>[26-34]</sup>

Concerning the health system, positive results of NGO-government collaboration include improvements of the health indicators in communities, increased financial resources of the health sector, and strengthening local governments' capacities to provide health-care services.<sup>[11,35,36]</sup> However, it should be noted that NGO-government collaboration is a complicated issue,<sup>[37]</sup> as different organizations, each with specific characteristics, are involved in this process. Besides, individual organization focus on their own set of goals, priorities, and plans and consequently, the collaboration process will be associated with different problems due to incompatible interest and goals.

Since NGO-government collaboration is now considered a common approach to provide health-care services and resolve health issues,<sup>[9,24]</sup> unawareness of the collaboration

challenges could result in loss of opportunities for their effective collaboration. Customized to different countries and their specific circumstances, previous studies have discretely examined various aspects of NGO-government collaboration in providing health care. Thus, the present study aimed to comprehensively investigate the most important challenges and problems faced by NGO-government collaboration in providing health-care services to pave the ground for improved collaboration within the health systems. Hopefully, the findings of the present study can assist policymakers and planners in resolving the problems and enhancing the effectiveness of the collaboration while improving the mutual viewpoints of the public sector and NGOs and the collaboration process itself.

## Materials and Methods

Employing a systematic review method, the present study was conducted to identify the challenges faced by NGO-government collaboration in providing health-care services between March 2020 and June 2020.

### Search strategy and data source

In databases including ISI Web of Science, Scopus, PubMed, and Embase, related studies on NGO-government collaboration in the health area were collected without time limitation (until May 2020). Using AND/OR, search keywords/terms were combined and written in the search box of each database [Table 1]. After completion of searching in each database, a list of collected studies was created using EndNoteX8 software (Clarivate, Thomson Reuters, Philadelphia, Pennsylvania, United States) and relevant studies were chosen through the list.

### Eligibility criteria

#### Inclusion criteria

English original research accessible in full text, mentioning the challenges, weaknesses, and barriers to NGO-government collaboration in providing health-care services was included in the study.

#### Exclusion criteria

At the beginning of the systematic review, books, dissertations, letters to the editor, nonjournal articles, and reports were excluded from the study. During the

**Table 1: Search strategy**

Number	Key words/terms
#1	(NGO OR "nongovernmental organization" OR "nongovernmental organization" OR "civil society organization" OR "nonstate organization" OR "nonprofit organization" OR "independent sector organization" OR "nonstate actor")
#2	(Health OR "health system" OR "health sector")
#3	(Participation OR partnership OR collaboration)
#4	#1 AND #2 AND #3

process, non-English papers, review articles, articles not accessible in full text, articles outside the health sector, and articles that not mentioning government-NGO collaboration in health-care services provision were omitted from the final analysis.

### Data extraction

The two researchers independently examined the articles obtained through searching in databases and resolved their disagreements through discussions or consulting a third researcher. After the collection of articles from databases and exclusion of irrelevant and duplicated papers, in the first stage, the title, then the abstract, and in the third stage, the full text of the articles were examined according to the inclusion and exclusion criteria. At each stage, based on eligibility criteria, nonrelevant studies were excluded and articles consistent with the research purpose were chosen for the next stage. Eventually, after completing the articles selection process, quality assessment, and review of reference lists of selected articles, final articles were selected. Information of the final articles (authors, location, year of publication, participants and their numbers, type of study, data collection method, data analysis method, and results related to the purpose of this study) was extracted using a researcher-made checklist. The obtained information was categorized, summarized, and then analyzed employing a content analysis approach.

Researchers assessed selected articles according to the Critical Appraisal Skills Program (CASP) checklist. In addition to studies not consistent with the purpose of our study, those having a low quality were also excluded. According to the CASP checklist, articles were classified into three categories of low-quality (assessment score <7), medium-quality (assessment score 7–8), and high-quality (assessments score 9–10) and low-quality articles were excluded.<sup>[38]</sup>

This study was done based on the Preferred Reporting Item for Systematic Reviews and Meta-Analysis standard.

## Results

### Database search results

In the present systematic review, 424 nonrelevant and 1286 repeated articles were excluded from 4236 initially collected studies. Then, the titles and abstracts of the remaining studies were examined to omit nonrelevant studies. Out of 99 remaining articles for full-text review, 16 studies were eventually chosen for the final analysis based on the inclusion and exclusion criteria, quality assessment, and exploring the references [Table 2]. Figure 1 represents the different steps of the selection process. The final studies were qualitative (13 studies)

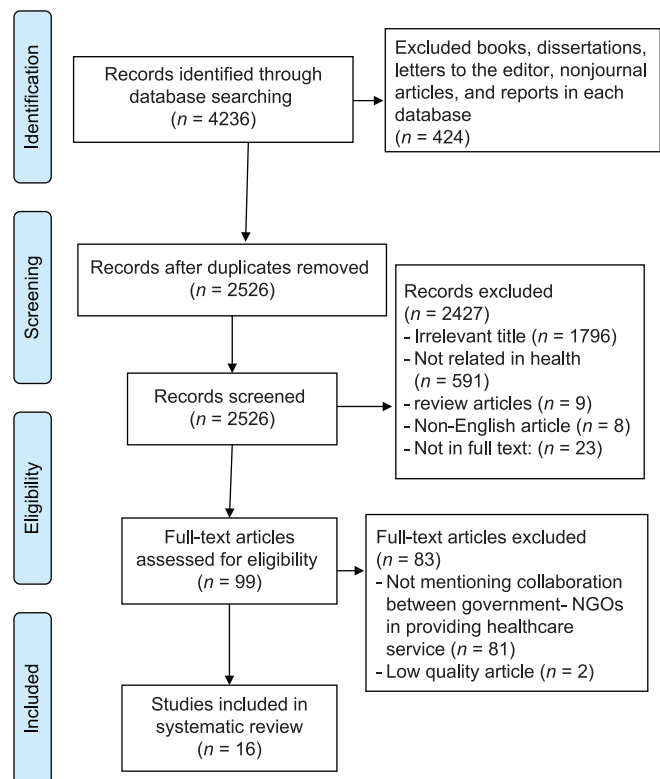


Figure 1: Flowchart of screened, excluded, and included studies

and mixed-method (three studies) designs. Most of them were published between 2011 and 2018 and conducted in developing and less-developed countries. In Figure 2, the frequency distributions of the final studies are shown based on their years of publication. Figure 3 summarizes the percentage contribution of the identified issues to the emergence of challenges in the NGO-government collaboration.

### Main results

Based on the content analysis of the selected articles, 70 challenges were identified in the NGO-government collaboration to provide health-care services. Challenges were divided into five main themes: structural issues, process issues, as well as issues related to roles and responsibilities, trust and communications issues, and control and power relations issues and 11 subthemes. Table 3 shows the categorization of the main and subthemes of challenges.

## Discussion

In the present study, the challenges between the government and NGOs in collaboration for providing health-care services were examined and divided into five main areas.

### Structural issues

According to our findings, structural issues

**Table 2: Characteristics of included studies**

First author <sup>[reference]</sup>	Year of publication	Location	Study aim/focus	Challenges of government-NGO collaboration in the study	Study design
Eftekhari <i>et al.</i> <sup>[39]</sup>	2014	Iran	“Understanding the nature of participation practice in CBHP and to use the data to advocate for more participation-friendly policies”	“Diversity of paradigms and views; competing priorities and decision-making processes; and complex processes of engagement”	Qualitative
Biermann <i>et al.</i> <sup>[40]</sup>	2016	Ecuador	“How an NGO and its health services are perceived and how it can contribute to reducing barriers to care”	Differences in interests, distrust between organizations, inconsistency in activities, unclear roles and responsibilities, and few effective communication	Qualitative
Brooke-Sumner <i>et al.</i> <sup>[41]</sup>	2016	South Africa	“Providing recommendations for strengthening intersectoral collaboration between government sectors and nongovernmental organizations in South Africa and with relevance to other low and middle income countries”	“Lack of communication and structured working relationship, unclear roles and responsibilities, and each sector’s perception of lack of support from other sectors, lack of a functioning coordination forum, lack of support and trust”	Qualitative
Bwimana <sup>[42]</sup>	2017	Congo	“How multiple stakeholders work to manage the health system”	Differences in priorities and programs, distrust between organizations, NGOs exploit the weakness of the public sector, state authority	Qualitative
Dawad and Jobson <sup>[43]</sup>	2011	South Africa	“Exploring some of the implications of NGO initiated program CBR, for HIV-related task-shifting programs”	state authority, restricted roles of NGOs in planning and decision-making, poor NGO-government collaboration	Qualitative
Ejaz <i>et al.</i> <sup>[44]</sup>	2011	Pakistan	“Capturing the perceptions of the government functionaries, NGO representatives and donor community about the role and position of NGOs in health systems strengthening in Pakistan’s context”	“Lack of trust, lack of clarity of roles and responsibilities, the absence or few effective communication”	Qualitative
Gómez-Jauregui <sup>[45]</sup>	2004	Mexico	“Analyzing the conditions exist in Mexico for successful and sustainable partnerships between the public sector and NGOs in the reproductive health field”	“Decrease the level of NGOs autonomy”, state authority	Qualitative
Heo <i>et al.</i> <sup>[46]</sup>	2018	South Korea	“Stakeholders’ attitudes toward future collaboration and challenges to collaboration between multiple government sectors and civil society”	“Competing relationship, different priorities and goals, lack of trust and communication, the need for a coalition with a committed leading actor for future collaboration”	Quantitative and qualitative
Hushie <sup>[28]</sup>	2016	Ghana	“Explore the drivers and nature of public-NGOs partnerships in health sector and their advantages and disadvantages”	Governmental bureaucratic procedures, differences between government and NGOs, varied goals, priorities, and interests, lack of an independent coordinating organization, and lack of transparency and accountability of NGOs	Qualitative
Mazzeo and Makonese <sup>[47]</sup>	2009	Zimbabwe	“Examining HBC services and relationships between stakeholders to coordinate the delivery of services for people living with HIV/AIDS”	“Unclear roles and responsibilities, lack of transparency and accountability by NGOs, Ignoring the government by NGOs, lack of coordination between the various program”	Qualitative
Scott <i>et al.</i> <sup>[48]</sup>	2018	India	“Examining the multiple roles and pressures that faced NGO field workers in northern India as they worked on a government contract to promote community participation in the health system”	“Limited control over many aspects of the program by NGOs, government’s rejection of the NGO’s efforts, negative view of the public sector towards NGOs”	Qualitative

Contd...

**Table 2: Contd...**

First author <sup>[reference]</sup>	Year of publication	Location	Study aim/focus	Challenges of government-NGO collaboration in the study	Study design
Spicer <i>et al.</i> <sup>[49]</sup>	2011	Georgia, Kyrgyzstan, Ukraine	“Exploring the factors enabling and undermining civil society efforts to advocate for policy reforms relating to HIV/AIDS and illicit drug”	Limiting the power, influence, and participatory roles of NGOs by the governments and poor NGOs-government collaboration	Qualitative
Srivastava <i>et al.</i> <sup>[50]</sup>	2016	India	“Exploring level and types of linkages between public health sector and NGOs and identifies gaps and challenges for effective linkage”	“Limited data sharing, Limited NGO participation in planning, Limited monitoring regulatory compliance”	Qualitative
Ullah <i>et al.</i> <sup>[33]</sup>	2006	Bangladesh	“Analyzing the basic concepts and key issues of existing collaboration between government and NGOs in health care”	Heterogeneity of NGOs, differences between government and NGOs, distrust between organizations, negative view of the government towards NGOs, governmental bureaucratic procedures, government authority, and the absence of a clear framework for collaboration	Qualitative
Wandwalo <i>et al.</i> <sup>[51]</sup>	2004	Tanzania	“Determining opportunities and barriers encountered in establishing an effective collaboration between the tuberculosis program and an NGO in TB/HIV care at a district level in Tanzania”	“Poor communication between collaborating partners, lack of trust and poor understanding of each others role,” lack of transparency of NGOs	Quantitative and qualitative
Yagub <sup>[52]</sup>	2014	Sudan	“Examine the existing collaboration between government and NGOs in curative health service delivery in North Darfur State, and to identify the challenges that affect their collaboration”	Government authority, negative view of the government towards NGOs, lack of transparency and accountability of NGOs, differences between government and NGOs, uncertainty about the future of government-NGO collaboration, NGOs indifference to government policies, few effective communication, distrust, and governmental bureaucratic procedures	Quantitative and qualitative

NGOs=Nongovernmental organizations, TB=Tuberculosis, HIV=Human Immunodeficiency Viruses, AIDS=Acquired immunodeficiency syndrome, HBC=Home-based care, CBR=Community-based rehabilitation, CBHP=community-based health program

were considered among the main challenges of NGO-government collaborations. Varied goals, priorities, and interests lead to disrupted processes of collaboration between the public sector and NGOs. Involved organizations refuse to easily accept the plans and priorities of the other party and resist the collaboration.<sup>[28,40,42,46,52]</sup> For instance, despite the preference of Sudan government for the participation of NGOs in establishing health-care facilities, NGOs tend to directly provide health services.<sup>[52]</sup>

On the other hand, different goals and priorities may form competitive relationships between government and NGOs, negatively influencing the effectiveness of their cooperation.<sup>[37,44]</sup> As Pick points out, NGOs often operate in the areas not prioritized by the governments. Moreover, the government and NGOs avoid collaboration opportunities due to the contradictory relationships in many countries.<sup>[53]</sup>

In addition, differences between governments and NGOs should also be considered in collaborative plans. NGO-government collaboration in providing health

care is influenced by the instability and high rate of personnel turnover, as well as the heterogeneity of size, nature, characteristics, and levels of commitment to society in NGOs.<sup>[28,33,52]</sup> As Kelly suggests, a high rate of personnel turnover is an operational challenge for NGOs in developing countries.<sup>[54]</sup>

Featuring different experiences and capacities, NGOs possess higher capacities to recognize the main issues and priorities of society than the governments. Furthermore, NGOs establish better communications with the communities to discover their needs and priorities, and society members easily accept solutions offered by NGOs.<sup>[28,33,44,46,52]</sup>

### Process-related issues

These issues include administrative bureaucracy governing the public sector, lack of an independent coordinating organization, and poor NGO-government collaboration.

The incentives of NGOs to collaborate in governmental health programs are diminished by the bureaucracy

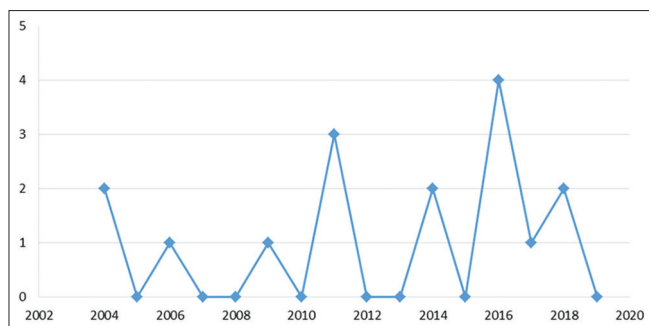


Figure 2: Frequency distribution of final studies about challenges of government-NGO collaboration in health by year of publication

governing the public sector, the time consuming and complex nature of administrative processes, and the multiplicity of governmental decision-making centers.<sup>[28,33,39,52,55]</sup> In Bangladesh, concern about being involved in the bureaucracy and control governing the public sector prevent NGOs from collaboration in health programs, even in practical cases where they can collaborate in developing health policies.<sup>[56]</sup>

For reasons as lacking a defined framework for NGO-government collaboration in the health sector, the complex processes, and unpredictable future of collaboration between the government agencies and NGOs, there is an increasing need to establish an independent organization to coordinate activities and programs between the government and NGOs in collaboratively providing health-care services.<sup>[28,33,39,41,46,49,52]</sup> Hou believes that the formation of an independent coordinating organization is an important strategy for the success of communication mechanisms between the government and the nonprofit sector when making emergency decisions in situations of geographical crises.<sup>[57]</sup>

Despite the current consensus on the necessity of NGO-government collaboration, the government practically provides NGOs with limited opportunities. The government sector views NGOs as saviors not partners, and as providers not decision-makers, and expects NGOs to enforce their orders. Accordingly, NGOs are not associated with different steps of health programs, particularly the planning process.<sup>[43,48-50]</sup> Based on a study by Kelly, lack of governmental supports was considered to be an important issue for effectively implement AIDS prevention programs from the perspectives of NGOs.<sup>[54]</sup>

### Issues related to roles and responsibilities

Undefined roles and responsibilities and lack of transparency and unaccountability of NGOs are important issues in NGO-government collaboration to provide health care. The ambiguity and unawareness of roles and responsibilities make both the parties

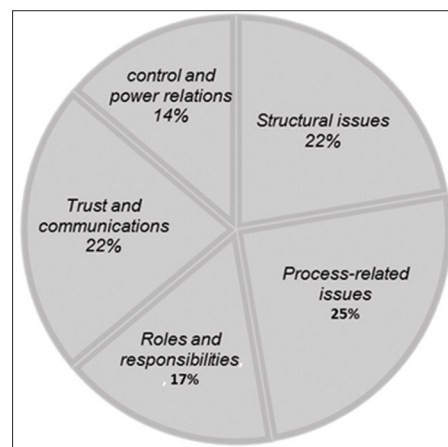


Figure 3: Percentage contribution of challenges in government-NGO collaboration in health

### Table 3: Challenges of the government-nongovernmental organization collaboration in providing health-care services

Structural issues
Varied goals and priorities
Differences between the public sector and NGOs
Process-related issues
Decision-making and administrative processes of the public sector
Lack of an independent coordinating organization
Low levels of the NGO-government collaboration
Issues related to roles and responsibilities
Undefined roles and responsibilities, poor understanding among members about the mutual roles and responsibilities
Lack of transparency and accountability in NGO performance
Issues related to trust and communications
Distrust and lack of structured relationships between government agencies and NGOs
Negative perspective of the public sector toward NGOs
Issues related to control and power relations
Higher levels of authority possessed by the public sector than NGOs
Reduced level of autonomy and independence among NGOs

NGOs=Nongovernmental organizations

operate in collaborative activities and programs without considering the tasks and limitations of the other party, which also leads to an activity overlap in some cases.<sup>[40,41,44,47,51]</sup>

Obviously, the precise definition and increased awareness of the roles and responsibilities of both the parties will effectively influence the reduction of tensions and maintaining integrity and unity in health programs. Razavi suggests that presenting a clear and precise definition of roles in the process of determining health priorities will reduce disagreements while decreasing the contrast between stakeholders.<sup>[58]</sup>

The government agencies believe that NGOs do not view them as their true collaborators and exhibit insufficient

accountability on their activities.<sup>[47]</sup> Lack of transparency, particularly in financial and management performance, is another complaint on NGOs' actions.<sup>[28,50]</sup>

Since there is not a coherent information and communication system between the public sector and NGOs, the performance of NGOs is not transparent to the government and society.<sup>[41,50-52]</sup> Rached emphasizes transparency, accountability, and mutual respect as important factors in explaining the principles governing the collaboration between the World Health Organization (WHO) and nongovernmental players.<sup>[59]</sup>

### Issues related to trust and communications

Communication and trust form the basis of challenges in the NGO-government collaboration to provide health care. The absence of effective communication channels between NGOs and government agencies limits communications and information exchange between these organizations, leading to mutual distrust mainly shown by the governmental agencies.<sup>[40-42,44,46,50-52]</sup>

According to a common belief in the public sector, collaborative actions with NGOs in providing health services result in a weakened governmental authority and a distrust of society toward the public sector.<sup>[33]</sup> On the other side, NGOs distrust the government and find themselves exploited as a tool by governments through restricting their role in the implementation of programs and preventing them from participating in planning and decision-making.<sup>[48-50]</sup> Similarly, the reluctance and distrust of the public sector to collaborate with NGOs are reported by Roche to be among the challenges of their collaboration in Guatemala, resulting in the ineffective implementation of the referral system and reduced continuity of care services.<sup>[60]</sup>

The pessimistic, negative view of the public sector toward NGOs is another challenge. Governments believe that NGOs are less active entities, with a higher interest in chanting slogans than acting, and inattentive to performance transparency. Moreover, NGOs are seen being overwhelmed by their own issues, ignorant of the public sector constraints, overly critical of governmental policies, and unaware of major development challenges.<sup>[48,52]</sup>

The public sector, therefore, does not consider decision-making role for NGOs and provides them with limited opportunities for collaboration. Alam considers strict contracts, negative contradictory views mutually developed between NGOs and governments, undefined roles, and the distrust of public sector employees to the capacity, commitment, and honesty of NGOs to be the challenges of the relationship between the public sector and NGOs in Bangladesh.<sup>[56]</sup>

### Issues related to control and power relations

NGOs are considered weak parties in the balance of power between them and governments.<sup>[61]</sup> There are cases where the government exploits its power as the budget provider to determine the implementation and changes in programs without consulting with NGOs,<sup>[43]</sup> thereby limiting the effective participation of NGOs in the health sector.<sup>[43,49]</sup> Mclaughlin points out that the subordinated position of NGOs in the collaborative relationship with the government negatively influences their autonomy, identity, and effectiveness.<sup>[61]</sup>

From the NGOs' viewpoints, increased interaction and collaboration with the government potentiates governmental control, leading to reduced autonomy and effectiveness of NGOs in society.<sup>[33,45,48,52]</sup> NGOs believe that the excessive control imposed on their activities by the public sector will result in deviation from their main goals and facing them with many obstacles.<sup>[45]</sup> According to Unnithan study, NGOs believe that working with the government inhibits their independence and effectiveness in implementing the NRHM program.<sup>[55]</sup>

Finally, it is worth noting that the challenges of NGO-government collaboration in providing health-care services should not be viewed independently. As these issues are interconnected, the emergence of an issue is followed by other numerous problems. Alternatively, efforts to resolve a problem will prevent the occurrence of other ones. Thus, it should be borne in mind that resolving these issues requires a comprehensive systematic perspective.

### Study novelty

This study, for the first time, summarizes the challenges of collaboration between the government and NGOs in providing health-care services as a systematic review. Since the results of this review are based on the views of different individuals in both government and NGOs, it provides a comprehensive and complete overview of the challenges to the audiences.

### Study limitations

The most important limitation of this study was the use of full-text articles in English, preventing the use of papers in other languages or conference papers. Furthermore, most of the included studies in this review were in less developed or developing countries, all of which affect the generalizability of the results of this study.

### Conclusion

The NGO-government collaboration in the health area, as a common approach, is associated with inevitable challenges and issues that threaten the

effectiveness of collaborative activities. Awareness of these challenges and issues will help managers, planners, and policymakers in government agencies and NGOs to try to promoting intersectoral collaboration using a systematic perspective. Considering these challenges and necessary efforts to eliminate and minimize their effects on the NGO-government collaboration in the health area is a preventive action that has a significant role in the advancement and improvement of such collaborations. Effective NGO-government collaboration in the health area can be assisting in the development of the health systems. Furthermore creates opportunities for health systems to make use of the hidden potentials of NGOs more than before.

### Acknowledgment

This study was a part of a PhD thesis entitled "Developing a model for partnership of nongovernmental organizations in Iran's health system" and supported by Iran University of Medical Sciences (grant No: IR.IUMS.REC.1397.1330).

### Financial support and sponsorship

This study was financially supported by Iran University of Medical Sciences, Tehran, Iran.

### Conflicts of interest

There are no conflicts of interest.

### References

1. Werker E, Ahmed FZ. What do nongovernmental organizations do?. *J Econ Perspect* 2008;22:73-92.
2. Damari B, Heidarnia M, Rahbari M. Role and performance of Iranian NGOs in community health promotion. *Payesh* 2014;13:541-50.
3. Shandra JM, Shandra CL, London B. Do non-governmental organizations impact health? A cross-national analysis of infant mortality. *Int J Comp Soc* 2010;51:137-64.
4. Thara R, Patel V. Role of non-governmental organizations in mental health in India. *Indian J Psychiatry* 2010;52:S389-95.
5. Delisle H, Roberts JH, Munro M, Jones L, Gyorkos TW. The role of NGOs in global health research for development. *Health Res Policy Syst* 2005;3:3.
6. Nikkhah HA, Redzuan MB. The role of NGOs in promoting empowerment for sustainable community development. *J Hum Ecol* 2010;30:85-92.
7. Ghorbanian H, Haratiannejadi M. The right of diseases and the role of governmental and private departments. *Med Law J* 2007;1:11-41.
8. Solana EF. Public private not-for-profit partnerships: Delivering public services to developing countries. *Procedia Eng* 2014;78:259-64.
9. Das A, Friedman J, Kandpal E. Does involvement of local NGOs enhance public service delivery? Cautionary evidence from a malaria prevention program in India. *Health Econ* 2018;27:172-88
10. Rouhi N, Gorji HA, Maleki M. Nongovernmental organizations coordination models in natural hazards: A systematic review. *J Educ Health Promot* 2019;8:44.
11. Piotrowicz M, Cianciara D. The role of non-governmental organizations in the social and the health system. *Przegł Epidemiol* 2013;67:69-74, 151-5.
12. Smith K. Non-governmental organizations in the health field: Collaboration, integration and contrasting aims. *Soc Sci Med* 1989;29:395-402.
13. Galway LP, Corbett KK, Zeng L. Where are the NGOs and why? The distribution of health and development NGOs in bolivia. *Global Health* 2012;8:38.
14. Nathan S, Rotem A, Ritchie J. Closing the gap: Building the capacity of non-government organizations as advocates for health equity. *Health Promot Int* 2002;17:69-78.
15. Okma KG, Kay A, Hockenberry S, Liu J, Watkins S. The changing role of health-oriented international organizations and nongovernmental organizations. *Int J Health Plann Manage* 2016;31:488-510.
16. Damari B. Role and share of Iranian governmental organizations in public's health. *Payesh* 2015;14:511-21.
17. Bano M. Partnerships and the good-governance agenda: Improving service delivery through state-NGO collaborations. *Voluntas: Int J Voluntary Nonprofit Organ* 2019;30:1270-83.
18. Alonazi WB. Exploring shared risks through public-private partnerships in public health programs: A mixed method. *BMC Public Health* 2017;17:571.
19. Sabaghpoor F, Kohan S, Aghdak P, Beigi M. Investigating the service provision challenges by healthcare providers in selected comprehensive health centers. *J Educ Health Promot* 2019;8:185.
20. Barr DA. Ethics in public health research: A research protocol to evaluate the effectiveness of public-private partnerships as a means to improve health and welfare systems worldwide. *Am J Public Health* 2007;97:19-25.
21. Buse K, Waxman A. Public-private health partnerships: A strategy for WHO. *Bull World Health Organ* 2001;79:748-54.
22. Wamai RG. Reforming Health Systems: The Role of NGOs in Decentralization-Lessons from Kenya and Ethiopia. Boston, USA: Harvard School of Public Health; 2008.
23. Gulzar L, Henry B. Interorganizational collaboration for health care between nongovernmental organizations (NGOs) in pakistan. *Soc Sci Med* 2005;61:1930-43.
24. Akukwe C. The growing influence of non governmental organisations (NGOs) in international health: Challenges and opportunities. *J R Soc Health* 1998;118:107-15.
25. World Health Organization. Strategic Alliances: The Role of Civil Society in Health. World Health Organization; 2001.
26. Njau RJ, Mosha FW, De Savigny D. Case studies in public-private-partnership in health with the focus of enhancing the accessibility of health interventions. *Tanzan J Health Res* 2009;11:235-49.
27. Aldaba FT. Philippine NGOs and multistakeholder partnerships: Three case studies. *Voluntas: Int J Voluntary Nonprofit Organ* 2002;13:179-92.
28. Hushie M. Public-non-governmental organisation partnerships for health: An exploratory study with case studies from recent ghanaiian experience. *BMC Public Health* 2016;16:963.
29. Mercer MA, Liskin L, Scott SJ. The role of non-governmental organizations in the global response to AIDS. *AIDS Care* 1991;3:265-70.
30. Uwimana J, Zarowsky C, Hausler H, Jackson D. Engagement of non-government organisations and community care workers in collaborative TB/HIV activities including prevention of mother to child transmission in south africa: Opportunities and challenges. *BMC Health Serv Res* 2012;12:233.
31. Numeh D, Ejike F. The role of NGOs in HIV/AIDS prevention in Nigeria. *Dialect Anthropol* 2004;28:339-52.
32. Dholakia YN. TB/HIV coordination through public private partnership: Lessons from the field. *Indian J Tuberc* 2013;60:23-7.
33. Ullah ZA, Newell JN, Ahmed JU, Hyder MK, Islam A. Government-NGO collaboration: The case of tuberculosis control in Bangladesh. *Health Policy Plan* 2006;21:143-55.



34. Alam MS, Kabir MM, Hossain MS, Naher S, Ferdous NE, Khan WA, *et al.* Reduction in malaria prevalence and increase in malaria awareness in endemic districts of bangladesh. *Malar J* 2016;15:552.
35. Pfeiffer J. International NGOs and primary health care in mozambique: The need for a new model of collaboration. *Soc Sci Med* 2003;56:725-38.
36. World Health Organization. WHO and Civil Society: Linking for Better Health. World Health Organization; 2002.
37. Piotrowicz M, Cianciara D. Associations and foundations in the field of health care and their role in the health system of poland. *Przegl Epidemiol* 2013;67:63-8, 145-9.
38. Aryankhesal A, Mohammadibakhsh R, Hamidi Y, Alidoost S, Behzadifar M, Sohrabi R, *et al.* Interventions on reducing burnout in physicians and nurses: A systematic review. *Med J Islam Repub Iran* 2019;33:77.
39. Eftekhari MB, Mirabzadeh A, Forouzan AS, Dejman M, Afzali HM, Djalalinia S, *et al.* A qualitative study of community-based health programs in iran: An experience of participation in I.R. Iran. *Int J Prev Med* 2014;5:679-86.
40. Biermann O, Eckhardt M, Carljford S, Falk M, Forsberg BC. Collaboration between non-governmental organizations and public services in health-a qualitative case study from rural ecuador. *Glob Health Action* 2016;9:32237.
41. Brooke-Sumner C, Lund C, Petersen I. Bridging the gap: Investigating challenges and way forward for intersectoral provision of psychosocial rehabilitation in south africa. *Int J Ment Health Syst* 2016;10:21.
42. Bwimana A. Health sector network governance and state-building in south kivu, democratic republic of congo. *Health Policy Plan* 2017;32:1476-83.
43. Dawad S, Jobson G. Community-based rehabilitation programme as a model for task-shifting. *Disabil Rehabil* 2011;33:1997-2005.
44. Ejaz I, Shaikh BT, Rizvi N. NGOs and government partnership for health systems strengthening: A qualitative study presenting viewpoints of government, NGOs and donors in pakistan. *BMC Health Serv Res* 2011;11:122.
45. Gómez-Jauregui J. The feasibility of government partnerships with NGOs in the reproductive health field in mexico. *Reprod Health Matters* 2004;12:42-55.
46. Heo HH, Jeong W, Che XH, Chung H. A stakeholder analysis of community-led collaboration to reduce health inequity in a deprived neighbourhood in south korea. *Glob Health Promot* 2020;27:35-44.
47. Mazzeo J, Makonese L. Experiences of collaboration, coordination and efficiency in the delivery of HIV/AIDS home-based care in zimbabwe. *Afr J AIDS Res* 2009;8:443-53.
48. Scott K, George AS, Harvey SA, Mondal Sh, Patel G, Vr R, *et al.* Government helper and citizen advocate? A case study of the multiple roles and pressures facing a nongovernmental organization contracted by government to strengthen community health in Northern India. *Int J Health Plann Manage* 2018;33:391-404.
49. Spicer N, Harmer A, Aleshkina J, Bogdan D, Chkhatarashvili K, Murzalieva G, *et al.* Circus monkeys or change agents? Civil society advocacy for HIV/AIDS in adverse policy environments. *Soc Sci Med* 2011;73:1748-55.
50. Srivastava A, Bhattacharyya S, Gautham M, Schellenberg J, Avan BI. Linkages between public and non-government sectors in healthcare: A case study from uttar pradesh, india. *Glob Public Health* 2016;11:1216-30.
51. Wandwalo E, Kapalata N, Tarimo E, Corrigan CB, Morkve O. Collaboration between the national tuberculosis programme and a non governmental organisation in TB/HIV care at a district level: Experience from tanzania. *Afr Health Sci* 2004;4:109-14.
52. Yagub A. Collaboration between government and non-governmental organizations (NGOs) in delivering curative health services in north darfur state, sudan- a national report. *Iran J Public Health* 2014;43:561-71.
53. Pick S, Givaudan M, Reich MR. NGO-government partnerships for scaling up: Sexuality education in Mexico. *Dev Pract* 2008;18:164-75.
54. Kelly JA, Somlai AM, Benotsch EG, Amirkhanian YA, Fernandez MI, Stevenson LY, *et al.* Programmes, resources, and needs of HIV-prevention nongovernmental organizations (NGOs) in africa, central/Eastern europe and central asia, latin america and the caribbean. *AIDS Care* 2006;18:12-21.
55. Unnithan M, Heitmeyer C. Global rights and state activism: Reflections on civil society-State partnerships in health in NW India. *Contrib Indian Sociol* 2012;46:283-310.
56. Nurul Alam SM. Health service delivery: The state of government-non-government relations in Bangladesh. *Public Adm Dev* 2011;31:273-81.
57. Hou J, Xiao R. Identifying critical success factors of linkage mechanism between government and non-profit in the geo-disaster emergency decision. *Int J Emerg Manage* 2015;11:146-68.
58. Razavi SD, Kapiriri L, Abelson J, Wilson M. Who is in and who is out? A qualitative analysis of stakeholder participation in priority setting for health in three districts in uganda. *Health Policy Plan* 2019;34:358-69.
59. Rached DH, Ventura DF. World health organization and the search for accountability: A critical analysis of the new framework of engagement with non-state actors. *Cad Saude Publica* 2017;33:e00100716.
60. Roche S, Hall-Clifford R. Making surgical missions a joint operation: NGO experiences of visiting surgical teams and the formal health care system in guatemala. *Glob Public Health* 2015;10:1201-14.
61. McLoughlin C. Factors affecting state-non-governmental organization relations in service provision: Key themes from the literature. *Public Adm Dev* 2011;31:240-51.