Toward a Recognition of Key Role Players in Community Pharmacy

Monireh Afzali
  Tehran University of Medical Sciences  https://orcid.org/0000-0002-5979-5296

Ali Rajabzadeh
  Tarbiat Modares University

Fatemeh Soleymani
  Tehran University of Medical Sciences

Abbas Kebriaeezadeh
  Tehran University of Medical Sciences

Shekoufeh Nikfar  (nikfar_sh@tums.ac.ir)

Research article

Keywords: community pharmacy, focus groups, stakeholder matrix, health policy, pharmacy administration

DOI: https://doi.org/10.21203/rs.3.rs-27831/v1

License: ©️ This work is licensed under a Creative Commons Attribution 4.0 International License. Read Full License
Abstract

Background: Although private community pharmacies are identified as health care facilities, they are highly affected by business management issues and different stakeholders. This study aims to identify, classify and analyze private community pharmacy stakeholders.

Methods: A focus group was conducted with key informants to analyze and classify stakeholders using three-dimensional matrix. Identified stakeholders were analyzed regarding three attributes of power, legitimacy and urgency. The results of the focus group were converted to a structured questionnaire and confirmed in several face-to-face interviews until the saturation level.

Results: four main levels of relationship and eight category of stakeholders differentiated through an analysis. The core stakeholders group possesses all the attributes and include pharmacy licensee, licensee-owner, responsible pharmacist, customer, prescriber, health insurance, regulatory body, and staff.

Conclusion: The core stakeholders are directly involved in decision making. Further deliberations are necessary to analyze the behavior of stakeholders and investigate the communication model.

1. Introduction

One of the main goals of a health system is to ensure that effective, safe and high quality medicines are affordable, accessible, and rationally used. Achieving this goal involves a range of determinants from policy making to health service providers. Community pharmacy is the latest ring of the medicine supply chain, and it is the last control station -sometimes with no return- of medication therapy management. It is an accessible health care facility with some specialized human resources to consider society health and to answer the patients’ questions. Hence, community pharmacy is an undeniable determinant and plays a critical role in the affordability, accessibility and rational use of medicines. In many countries, most of the pharmacies are financed and managed privately. Although private community pharmacies are identified as health care facilities, they are highly affected by business management issues. Pharmacy is an example of private provision of public service (1). Private provision of public services is a popular kind of public-private partnership in the health sector as a solution for reducing governmental cost and improving health care efficacy. In private community pharmacy –as a public-private partnership model- there are two sides. One side is the health system as a public sector, while the other is a privately owned pharmacy. Consequently, they pursue two different types of goals. The health system maximizes social health outcomes, whereas the private provider maximizes its profit (2–4). This is obvious, as the private partner may not necessarily be satisfied by the public interest as a financial goal (5). Generally, public services are costly, but in private markets, a business enterprise has to be profitable to survive. Part of this conflict is due to the differences among the stakeholders and their particular attributes. Public-private partnerships involve various types of stakeholders that ignoring them could be accompanied by inefficiency in implementation health programs (5). Stakeholder analysis is an approach to understand the relevant actors in purpose to get a rich picture of their power, interests, relationships, and behavior. This information is vital to obtain a deep understanding of the context, evaluating activity environment,
recognizing key-players, and then develop suitable strategies for managing these actors or mobilizing them to achieve organizational goals (6).

This study aims to identify private community pharmacy (PCP) stakeholders and analyze their saliency, situation, and their relationship with pharmacy. Pharmacy function varies from country to country in details due to variations in social factors or national policies. Hence, pharmacy relational dynamics could be different in different healthcare models or systems. Considering this point, the authors believe that the results of this study could be useful for policy makers as well as researchers.

**Lessons from literature**

Over the past two decades, researchers show further attention to the efficiency of the health care organizations and their management. Accordingly, several valuable multidisciplinary kinds of literature have been published and discussed the Health care managerial issues from the perspectives of the social sciences including economics, business, and operational research. McKenzie et al. have introduced stakeholder identification as the first step in the health planning process (7). The comprehensive identification might lead to initial commitment, vision development, role specifications, and next assuring access to the expected resources in an efficient way (7). Stakeholder analysis is an effective way to identify complex situations that involve many legal or natural persons (8). Hence, it has been seen as a valuable tool in health policy and management during the past decades (6, 9–12). There are several studies argue about pharmacy stakeholders in some specific programs. Vozikis et al. analyzed the policy environment of pharmacies and mapped the role of key stakeholders in pharmacy policymaking (13). The authors discussed the opportunities and obstacles of each group of stakeholders. Franco-Trigo et al. debated on the stakeholders of the cardiovascular prevention program in community pharmacies (11). They use a descriptive approach to identify three main groups of stakeholders across the cardiovascular prevention program in community pharmacies, including patients, related health professionals, and organizations associated with the program. Sabater-Hernández and colleagues used a stakeholder share vision to develop a community pharmacy service for patients with atrial fibrillation. Although the principal purpose of this study is not stakeholder identification, they defined the stakeholders as all those who are directly or indirectly influential on the service. As a result, potential service users, service providers, general practitioner, cardiologists, heart failure nurse practitioner, research nurse, and a representative from the local Stroke Foundation were considered (14). Hossain LN and colleagues focused on pharmacy services funded by the government. The main aim of the study was the identification of executive determinants for desired service without further emphasis on stakeholder analysis. Nevertheless, two groups of key-players were considered as project participants that have introduced in ground-level and primary health network. The ground level key-players incorporated service providers and recipients when primary health network key-players combined decision-makers associated with health system (15). The most recent study in this area analyzed stakeholders for developing a preventive community pharmacy service for cardiovascular diseases (16). The analysis was performed using the snowball methodology and the questionnaire tool. After categorization, they found several main groups of stakeholders including
patients, health care professionals, regulatory bodies, scientific organizations, NGOs, government institutions, academic researchers, private health insurers, pharmaceuticals or medical devices suppliers, associated software providers, and media.

Notwithstanding having some rather novel lessons from previous literature, only a few studies have discussed the conflict of interests and power relations between stakeholders and their impacts on the efficiency of community pharmacies. Also, no study has concentrated on the private community pharmacies as an independent business enterprise. Business and financial issues could raise multiple confictions with health objectives and lead to more complexity in the determination of real stakeholders and their behavior.

**Theory of stakeholders**

The predominant definition of stakeholder is attributed to W. Edward Freeman, who defined a stakeholder as “any group or individual who can affect or is affected by the achievement of the organization’s objectives” (17). Organization refers to an organized group of people with a particular purpose (18). In this case, we assume a private community pharmacy as an organization pursues two levels of purposes. 1- The economic purposes and profit maximization, and 2- the health care purposes that are induced and followed by the regulatory body. Freeman definition introduces a wide area of possible stakeholders. Mitchell and colleagues' (1997) suggested that managers might classify the characteristics of stakeholders (19). The theoretical concept of this study is based upon Mitchell and colleagues' hypothesis that stakeholder salience will be directly associated with the resultant accumulation of stakeholder attributes, including power, legitimacy, and urgency, recognized by managers (19). There is some evidence that attempts to clarify the issue that managers cannot take into consideration all the stakeholders' requests or demands and has to set out a series of priorities for managerial attention (20). Mitchell and colleagues’ definition of stakeholder salience has been accepted as the degree to which managers prioritize the consideration or even involvement of stakeholder in decision making. The main advantages of this model are in three areas: 1- policy-making, due to reflecting the organization as the result of conflicts of interests, 2- operationally practice, with specifying the stakeholders, and 3- dynamic environment, based on the possibility of changes in stakeholders’ attributes and their salience (21). These advantages make it possible to take benefit from this model to various fields of policy-making and macro management with the ability to re-evaluate the model and stakeholders’ positions over time.

In this method, the stakeholders are categorized according to either the possession or not of the attributes of power, legitimacy and urgency as illustrated in Fig. 1.

“Power” refers to the ability of stakeholders to exercise influence, which could be through using political, coercive, utilitarian, or normative means. “Legitimacy” pertains to a stakeholder whose actions are considered desirable and proper within the context of the social system. “Urgency” refers to the extent to which a stakeholder’s claims are considered critical or time sensitive and need attention.
The three-dimensional analytical matrix results from various combinations of these attributes. As per Fig. 1, there are eight zone based on the interactions over the three attribute that stakeholders could have between them. The next few paragraphs discuss the reasoning behind each class of stakeholder.

**Definitive stakeholders**

Definitive stakeholders have a direct relationship with the system. In this situation, managers or policy makers have a clear and immediate mandate to attend to and give priority to these stakeholders’ demands.

**Dormant stakeholders**

The relevant attribute of dormant stakeholders is power. Dormant stakeholders possess power to impose their request on the system, but due to lack of legitimacy or urgency, their power remains useless.

**Dominant stakeholders**

These stakeholders are both powerful and legitimate. So, their influence on the system is assured.

**Discretionary stakeholders**

Although discretionary stakeholders possess the attribute of legitimacy, they have neither power nor urgency to influence the system. The strategic point regarding discretionary stakeholders is that, in the absence of power and urgency, there is absolutely no pressure on managers (or policy makers) to involve in an active relationship with such stakeholders, even though managers can choose to do so.

**Dependent stakeholders**

The stakeholders who lack power, but have urgent legitimate claims are categorized as “dependent,” because they depend on others (other stakeholders or the firm’s managers) for the necessary power to achieve their demands.

**Demanding stakeholders**

When the sole significant attribute of a stakeholder is urgency, the stakeholder is described as “demanding.” Demanding stakeholders are troublesome, but don’t necessarily need more than passing attention from the management.

**Dangerous stakeholders**

When urgency and power characterize a stakeholder in the absence of legitimacy, that stakeholder will be compulsory and possibly violent, making the stakeholder “dangerous,” literally, to the system.

2. Materials And Methods
All study procedures were approved by Tehran University of Medical Sciences’ Specialized Research Council.

2.1. Study design

Qualitative research with interpretive approach was designed to answer the research questions. Interpretive research assumes that social reality is formed by human experiences and social contexts. Therefore, the best method for understanding is exploring the opinions, experiences, and perceptions of its various participants or experts. (22).

A focus group was carried out at the Tehran University of Medical Sciences, Tehran, and then was verified by individual structured interview and email confirmation from all participants. Focus group discussion is a powerful method for providing interaction between participants and penetration into a range of perspectives, perceptions or opinions that they have about a specific problem, issue or concern. Furthermore, focus groups facilitate a more natural situation. Participants may influence and are influenced by others the same as real-life. To increase the credibility of the study, the focus group followed by individual structured interviews. Moreover, employing a feedback system provides a second opportunity for researchers to improve the confirmability of the results (23). Feedbacks and confirmations assembled via email after focus group and individual interviews data collections.

2.2. Setting and participants

A focus group and five structured interviews were conducted with eligible expert participants. Participants were selected using the list strategy (24). According to this strategy, in the first step the initial list of potential participants is prepared based on the inclusion criteria. Then some of them (10 persons max) are picked up randomly from the list. The inclusion criteria was academic education in the fields of pharmacy practice or management, more than five years of work experience in a pharmacy, history of social activity related to pharmacy affairs, and no financial relationship with the other participants. The information included in the initial list was the respondent’s name, phone number, email address, organization, and position. Selected participants were invited by phone call and email after getting the necessary information about the rationality and the goals of the study. The participants were the representatives of public and private pharmacies, Food and Drug Administration (pharmacy regulation), academic pharmacy education, patient association, interns of pharmacy practice education and management science. Some others were chosen for the structured face-to-face interview. Interviews continued to reach consensus.

2.3. Procedure and data collection

To drive the focus group, Freeman’s definition of a stakeholder was provided as follows: “Any group or individual who can affect or is affected by the achievement of the organization’s objectives” (17). The panel structure is shown in Fig. 2.
One moderator and one supervising professor conducted the focus group based on the “Stakeholder identification and salience” methodology (19). According to this method, all of the opinions are written on the board and omitted or confirmed after consensus. The participants were encouraged to brainstorm to provide a primary list of stakeholders. After criticism and consensus, the identified stakeholders were categorized into different levels according to their relationship with a pharmacy on the whiteboard and after participants’ confirmation. After a break, the participants got acquainted with a three-dimensional matrix method and terminology (19). After some explanation about three-dimensional matrix method, the participants were asked to replace the identified stakeholders in the matrix on the basis of the three attributes of power, legitimacy and urgency of each stakeholder. Discussions between the participants were held until consensus was reached. The outstanding notes were taken during the focus group by two researchers. Also, the whole meeting was recorded as an audio file, and the data on the board was photographed.

To increase credibility and entrustability the matrix resulting from the focus group was converted to a structural questionnaire and confirmed by several face-to-face interviews. The questionnaire is available as supplementary information. The questionnaire included the schematic picture of stakeholders’ matrix that was prepared in focus group discussion. The interviewees were asked about the position of each stakeholder in the matrix. Three choices were available for each stakeholder including “I accept the stakeholder and its position”, “I reject the stakeholder”, or “I accept the stakeholder but the position should change to zone number ...” At the end of the interview, the interviewees were asked if they wanted to introduce new stakeholders. The discussions were noted by the interviewer during the interview. Also, all the full-filled questionnaires were received, and the whole interviews were recorded as an audio file. The interviews continued to reach consensus in that means no new change occurred in the matrix. The consensus achieved after 5 interviews. The final matrix and the details of the results were sent to all the focus group participants and interviewees for confirmation via email. This process gave the second opportunity to participants to recheck the results of the research. No further disconfirmation was received.

3. Results

3.1. Characteristics of participants

The information of primary list, invitation, and attendance rates of Invitees are given in Table 1. Demographic characteristics of the participants have been represented in Table 2. The most frequent reason for non-participating was the unavailability at the time of meetings.
Table 1
The data of primary list, invitation, and attendance rates.

| The number of people who were replaced in the primary list based on inclusion criteria and expert suggestion | 31 |
|----------------------------------------------------------------------------------------------------------------|----|
| Invited participants through the list randomization via telephone and e-mail.                                   | 14 |
| Participants who attended the focus group                                                                   | 11 |

Table 2
Demographic characteristics of the participants.

|                                                                       | Focus group (n = 11) | Structured interview (n = 5) |
|-----------------------------------------------------------------------|----------------------|-------------------------------|
| **Gender**                                                            |                      |                               |
| Male                                                                  | 8                    | 3                             |
| Female                                                                | 3                    | 2                             |
| Age (mean)                                                            | 49.63                | 42.8                          |
| **Academic degree**                                                   |                      |                               |
| Pharm.D                                                               | 4                    | 2                             |
| PhD                                                                   | 7                    | 3                             |
| **Organization (some participants belong to more than one organization.)** |                      |                               |
| Academia                                                              | 6                    | 3                             |
| IR-FDA                                                                | 2                    | 2                             |
| Public pharmacy                                                       | 3                    | 1                             |
| Private pharmacy                                                      | 3                    | 2                             |
| Patient association                                                    | 1                    | 0                             |

3.2. Stakeholders Identification

The participants identified 49 stakeholders across community pharmacies after the brainstorming phase. The obtained results were categorized and judged on the whiteboard during focus group discussions and then finalized with expert interviews. Finally, there was consensus on 34 stakeholders. A detailed stakeholder map is shown in Fig. 3, where the following four main levels of relationship can be differentiated:
• Level 1 or internal stakeholders, including responsible pharmacists, licensee-owners, non-licensee-owners, pharmacy licensees, investors, pharmacist deputies, staff and trainees.
• Level 2 or consumer and supplier, including customers, health insurance, distributors, pharmaceutical companies, prescribers, injection centers, adulterants and contrabandists.
• Level 3 or observer of pharmacy activities, including public pharmacies, private pharmacies, regulatory bodies, Iran Pharmacists Association, Medical Council, patient associations, charities, patients’ families, health insurance, illegal enterprises, and pharmacy students.
• Level 4 or non-specific stakeholders carry important weight for pharmacies, including judiciary, municipality, suspending organizations, tax administration, bank, media and civil society.

3.3. Stakeholder Salience Analysis

The three-dimensional matrix was used to fully understand the stakeholders’ salience. An initial matrix was developed through the focus group discussion and improved after a structured interview. After the interview, one stakeholder was removed, eleven stakeholders were added, and the position of four stakeholders changed in the matrix. The final matrix is represented in Fig. 4. As a result, the stakeholders were grouped into eight classes. Table 3 presents the members of each category.
Table 3
Stakeholder classification.

| Definitive Stakeholders | Dormant Stakeholders | Dominant Stakeholders | Discretionary Stakeholders | Dependent Stakeholders | Demanding Stakeholders | Dangerous Stakeholders | Non-stakeholders |
|-------------------------|----------------------|-----------------------|---------------------------|------------------------|------------------------|------------------------|------------------|
| 1. Pharmacy licensee    | 1. Adulterant and contrabandist | 1. Public pharmacies | 1. Private pharmacies | 1. Injection centers | 1. Society | 1. Non-licensee-owner | 1. Pharmacy Students |
| 2. Licensee-owner      | 2. Illegal enterprises | 2. Tax admission | 2. Pharmacist deputy | 2. Iran Pharmacists Association | 2. Charity | 2. Charity | 2. Trainee |
| 3. Responsible pharmacist | 3. Suspending organization | 3. Distributer | 3. Distributer | 3. Patient association | 3. Patient association | 3. Patient association | 3. Patient association |
| 4. Customer             | 4. Bank               | 4. Supplier           | 4. Investor               | 4. Investor | 4. Investor | 4. Investor | 4. Investor |
| 5. Prescriber           |                      |                       |                           |                       |                       |                       | 5. Prescriber |
| 6. Health insurance     |                      |                       |                           |                       |                       |                       | 6. Health insurance |
| 7. Regulatory body      |                      |                       |                           |                       |                       |                       | 7. Regulatory body |
| 8. Staff                |                      |                       |                           |                       |                       |                       | 8. Staff |

4. Discussion

To the best of our knowledge, although previous studies have suggested stakeholders for some community pharmacy programs, this project is the first attempt to look at PCPs as an independent business enterprise, and from the societal perspective. The results of the study evidently support the idea that many different stakeholders with different properties and saliences may influence PCPs at various levels. Some of the stakeholders belong to the healthcare system and some others are not. According to the main finding of this paper, pharmacy licensee, licensee owner, responsible pharmacist, customer, Prescriber, health insurance, regulatory body, and staff are “definitive stakeholders” of PCPs. “Definitive stakeholders” are powerful, legal, and urgent (Fig. 4). They are the main decision-makers, either explicitly or implicitly. Manager (or policy-makers) have a reasonable and prompt command to give priority to these stakeholders’ claims (19). In the next paragraphs, the “definitive stakeholders” and their relation with non-definitive stakeholders will discuss.
According to Iran Food and Drug Administration, as well as many countries, a private pharmacy belongs to a pharmacist who has got a license to establish her or his pharmacy under district regulations and legislations of the Ministry of Health (25, 26). In some PCPs, the license owner, investor and even the responsible pharmacist are one particular person. The local healthcare system introduce this type of pharmacy as an ideal type of PCP, since it is managed under the full control of a pharmacist (25, 26). A responsible pharmacist is the one who has legal responsibility and all medicines are delivered under her or his supervision (26). He or she is the foremost decision-maker in regular pharmacy practice. A responsible pharmacist has the right to introduce another pharmacist to the FDA as a deputy in her or his absence (26). Since the pharmacist deputy is a temporary staff, he has little or no control over the pharmacy and is not considered as a “definitive stakeholder”. Other staff are permanent pharmacy human resource and again have a direct effect on the pharmacy’s success or failure (27).

From a business perspective, the survival of PCPs is dependent on consumer satisfaction. Many pharmacy’s customers have been referred to the pharmacy by a prescription from a Prescriber. Depending on the pharmacy location, some neighborhood prescribers have direct power to refer their own prescriptions to the particular pharmacy, and are implicit “definitive stakeholders”. Since customers are not the only payers to pharmacy, health insurance has a special place in PCPs. It is the third-part payer for most of the medicines and has a strong effect on the cash flow of pharmacies. At the same time, it is one of the supervisors of pharmacies beside the regulatory body. Hence, health insurance is placed on the border of level 2 (as a consumer) and level 3 (as an observer) in Fig. 3.

However, there are many non-definitive clusters and organizations with partial accountability at a different level of relationship. Some of them are dangerous. Although “dangerous stakeholders” have no legitimacy, they can raise some difficulties in the system due to their power and urgency. The most important are non-licensee-owner and investor. Since pharmacies are attractive for investment, there are many partnership offers for pharmacists that hold a license. In some partnership cases, a pharmacist is the manager of pharmacy. In some other cases, the pharmacist may surrender her or his own license to the investor, though it is illegal (28). In this type of pharmacies, pharmacy licensee is just a figurehead and has little or no control over the pharmacy management. Sometimes “dangerous stakeholders” are pursuing the demands of some “dependent stakeholders”. Pharmaceutical companies and distributors depend upon customers for the power required to carry out their will. They usually use marketing strategies or offer discounts to influence the pharmacy (29). Sometimes pharmaceutical companies use the power of patient associations and customers to persuade a prescriber or pharmacy to prescribe or sell a particular brand. There are many experiences of public demonstrations and grievances with the pharmaceutical companies’ invisible sponsorships or invitations (30, 31). In this case, patients associations are considered “dangerous stakeholders” for PCPs. “Dangerous stakeholders” move to “dormant” zone with urgency removal. Participants have deemed adulterants and contrabandists as “dormant stakeholders”. They came to a consensus that the legal access to medicines has improved in Iran during the past decades, and illegal roots have no longer significant urgency. This result have been confirmed previously (32).
There are two kinds of main competitors arising out of the business profile of PCPs including public and private pharmacies. More than 80% of active pharmacies in Iran are financed privately and the excess are owned by public organizations or institutions such as medical universities or Iran Red Crescent (29). Private pharmacies have neither power nor urgency, and have been considered as “discretionary stakeholders”. The participants believed that there was a relationship of good cooperation between the PCPs. According to the local regulations, the distribution of pharmacies is based on the area population and minimum specified distance. As a result, there is limited competition between pharmacies. In the non-competitive environment, professional cooperation formed between PCPs. Wertheimer, A.I. et al. investigated the relationship between pharmacies and concluded that there is a colleague relationship between pharmacies instead of competition. The study argued that the patients’ satisfaction and welfare are in priority for pharmacists (33). Nevertheless, the PCPs are not so optimistic about public pharmacies that have been considered as “dominant stakeholders”. Public pharmacies possess a monopoly over some particular medicines which are dispensed only by the government. On the other hand, they benefit from a significant decrease in administration cost. These characteristics could give them a competitive advantage that is unfair as per the perception of PCPs (34).

In a more general view, PCPs have a strong relationship with non-specific stakeholders (Fig. 3, level 4), including judiciary, municipality, suspending organization, tax administration, bank, media and civil society. Media and social networks have an important influence on all aspects of social life. Further research is needed to investigate the impact of different types of media in pharmacy and explore the relationship. Civil society and citizens are the main stakeholders of all the enterprise (35). The fundamental group unit of society is family moreover the extent of society definition includes all the people who live together (36). Society can put plentiful demand on policy-makers and governments to act on issues associated with medicines (37). Unfortunately, pharmacies in Iran don’t pay enough attention to society and the societal outcomes of their practices (38). The authors believe that the PCPs pursue different missions from different perspectives. The main mission of the PCPs is to provide rational access to safe, effective and high quality medicine from a health system perspective (39), and profit maximization from a business perspective. In both missions, civil society plays a key role and should be given top priority by the stakeholders.

This study improved an informative methodology (19) for pharmacy stakeholder analysis and provided it in details for other researchers from different countries. Moreover, deep understanding of stakeholders is so important for designing further operational research or qualitative analysis.

This study faced some limitations regarding documented data. Most of the information discussed by the panel originated from gray literature, personal experiences and oral history, which the authors tried to document in this manuscript. Another limitation pertained to the variability of the stakeholders’ dominance and authority in different situations.

5. Conclusions
The researchers of this project believe that this is the time to look at PCPs a bit more at the Outside zone and analyze all relevant key role players from the societal perspective. Assuredly have a clear picture of the stakeholders' characteristics, and their organizational behavior can lead to a strategic evidence-based decision-making process, and then achievement to health system objectives. This study provided a detailed picture of the wide range of natural or legal persons and organizations that are effective on or affected by PCPs. The methods and the results of this study are capable of localization in and transfer to many countries, which utilize private community pharmacies. The results underline the multilevel stakeholders including pharmacy licensee, licensee-owner, responsible pharmacist, customer, prescriber, health insurance, regulatory body, and staff as “definitive stakeholders” of PCPs. However, further deliberations are necessary to analyze the behavior of stakeholders and investigate the communication model.

**Abbreviations**

PCP: Private community pharmacy

**Declarations**

**Ethics approval and consent to participate:**

All study procedures were approved by Tehran University of Medical Sciences’ Specialized Research Council. The Ethical approval for this study was obtained from Tehran University of Medical Sciences Ethics committee (approval number: IR.TUMS.VCR.REC.1396.3807).

Every participant signed a written declaration of interest form and consent for participating in this study just before the focus group or interviews.

**Consent for publication:**

All authors approved the final manuscript for publication.

**Availability of data and materials:**

Not applicable' in this section.

**Competing interests:**

The authors declare no competing interests.
Funding:

This research received no external funding.

Authors' contributions:

MA, AR, and SN conceptualized and designed the study. MA conducted the focus group and interviewee and drafted the manuscript. AR and SN controlled and revised the methodology and its implementation during the project and revised the manuscript. All authors contributed to the consultation and modification of study setting and approved the final manuscript.

Acknowledgements:

We would like to acknowledge the key informants for their even-handed cooperation in this project. This work is part of the PhD thesis of Monireh Afzali in Pharmacoeconomics and Pharmaceutical Administration and we appreciate Tehran University of Medical Sciences for its support.

References

1. Bennett J, Iossa E. Delegation of contracting in the private provision of public services. Rev Ind Organ. 2006;29(1-2):75-92.
2. Jofre-Bonet M. Health care: private and/or public provision. European Journal of Political Economy. 2000;16(3):469-89.
3. Culyer AJ, Newhouse JP, Pauly MV, McGuire TG, Barros PP. Handbook of Health Economics: Elsevier Science; 2000.
4. Jakovljevic M. Health Economics and Policy Challenges in Global Emerging Markets: Nova Science Publishers, Incorporated; 2016.
5. Torchia M, Calabrò A, Morer M. Public–private partnerships in the health care sector: a systematic review of the literature. Pub Manag Rev. 2015;17(2):236-61.
6. Brigha R, Varvasovszky Z. Stakeholder analysis: a review. Health Policy Plann. 2000;15(3):239-46.
7. McKenzie JF, Neiger BL, Smeltzer JL. Planning, Implementing, and Evaluating Health Promotion Programs: A Primer: Pearson/Benjamin Cummings; 2005.
8. Bryson JM. What to do when stakeholders matter: A guide to stakeholder identification and analysis techniques. A paper presented at the London School of Economics and Political Science. 2003;10.
9. Akinci F, Mollahaliloğlu S, Gürsöz H, Öğücü F. Assessment of the Turkish health care system reforms: A stakeholder analysis. Health Policy. 2012;107(1):21-30.
10. de Vries J. The shaping of inventory systems in health services: A stakeholder analysis. Int J Prod Econ. 2011;133(1):60-9.
11. Franco-Trigo L, Hossain L, Durks D, Fam D, Inglis S, Benrimoj S, et al. Stakeholder analysis for the development of a community pharmacy service aimed at preventing cardiovascular disease. Res Social Adm Pharm. 2016.

12. Kanavos P, Costa-i-Font J, Merkur S, Gemmill M. The economic impact of pharmaceutical parallel trade in European Union member states: A stakeholder analysis. London: LSE Health Social Care Special Research Paper. 2004.

13. Vozikis A, Stavropoulou L, Patrinos GP. Community Pharmacists’ Strategies in Greece: An Assessment of the Policy Environment and the Mapping of Key Players. Health. 2015; Vol. 07 No. 11: 18.

14. Sabater-Hernández D, Tudball J, Ferguson C, Franco-Trigo L, Hossain LN, Benrimoj SI. A stakeholder co-design approach for developing a community pharmacy service to enhance screening and management of atrial fibrillation. BMC Health Services Research. 2018; 18(1): 145.

15. Hossain LN, Tudball J, Franco-Trigo L, Durks D, Benrimoj SI, Sabater-Hernández D. A multilevel stakeholder approach for identifying the determinants of implementation of government-funded community pharmacy services at the primary care level. Research in Social and Administrative Pharmacy. 2018; 14(8): 765-75.

16. Franco-Trigo L, Marqués-Sánchez P, Tudball J, Benrimoj S, Martínez-Martínez F, Sabater-Hernández D. Collaborative health service planning: A stakeholder analysis with social network analysis to develop a community pharmacy service. Research in Social and Administrative Pharmacy. 2019.

17. Freeman RE. Strategic management: A stakeholder approach: Cambridge university press; 2010.

18. Blane D, Brunner E, Wilkinson R. Health and Social Organization: Towards a Health Policy for the 21st Century: Taylor & Francis; 2002.

19. Mitchell RK, Agle BR, Wood DJ. Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. Acad Manag Rev. 1997; 22(4): 853-86.

20. Friedman AL, Miles S. Stakeholders: Theory and Practice: OUP Oxford; 2006.

21. Wagner Mainardes E, Alves H, Raposo M. A model for stakeholder classification and stakeholder relationships. Management decision. 2012; 50(10): 1861-79.

22. Bhattacherjee A. Social science research: Principles, methods, and practices. Florida, USA: Global Text Project; 2012.

23. Stewart DW, Shamdasani PN. Focus groups: Theory and practice: Sage publications; 2014.

24. Krueger RA. Focus Groups, a Practical Guide for Applied Research. Fifth ed: SAGE publication; 2014.

25. Nikfar S, Kebriaezadeh A, Majdzadeh R, Abdollahi M. Monitoring of National Drug Policy (NDP) and its standardized indicators; conformity to decisions of the national drug selecting committee in Iran. BMC Int Health Hum R. 2005; 5(1): 5.

26. Parvizi S. Establishment and management of pharmacies. Ministry of Health; 2016.

27. Kirchner JE, Parker LE, Bonner LM, Fickel JJ, Yano EM, Ritchie MJ. Roles of managers, frontline staff and local champions, in implementing quality improvement: stakeholders’ perspectives. J Eval Clin
28. Poolnews. Selling several hundred million pharmacy licensees in the market: Asr-e Iran; 2017 [Available from: https://www.asriran.com/fa/news/537181/.

29. Keshavarz K, Kebrabaezadeh A, Meshkini AH, Nikfar S, Mirian I, Khoonsari H. Financial perspective of private pharmacies in Tehran (Iran); is it a lucrative business? DARU 2012;20(1):62.

30. Aggregation of patients with Gaucher’s disease Iran: ISNA; 2016 [Available from: https://www.isna.ir/news/95071005815.

31. Aggregation of MPS patients. Iran: ISNA; 2017.

32. Cheraghali A, Nikfar S, Behmanesh Y, Rahimi V, Habibipour F, Tirdad R, et al. Evaluation of availability, accessibility and prescribing pattern of medicines in the Islamic Republic of Iran. Eastern Mediterranean Health Journal. 2004;10(3):406-15.

33. Wertheimer AI, Curtiss F, Vedder A, Lindblom J, Hydukovich D. Colleague or Competitor? A Study of Community Pharmacy Relationships. J Am Pharm Assoc. 1977;17(3):158-60.

34. Heinsohn JG, Flessa S. Competition in the German pharmacy market: an empirical analysis. BMC Health Serv Res. 2013;13(1):407.

35. Lépineux F. Stakeholder theory, society and social cohesion. Corp Gov: Int J Bus Soc. 2005;5(2):99-110.

36. Power S, Muddiman E, Moles K, Taylor C. Civil society: Bringing the family back in. Journal of Civil Society. 2018;14(3):193-206.

37. Mayall SJ, Banerjee AS. Therapeutic Risk Management of Medicines: Elsevier Science; 2014.

38. Rangchian M, Mehralian G, Salamzadeh J, Vatanpour H. Intra- And Extra-Organizational Factors Affecting Community Pharmacy Performance. Value Health. 2015;18(7):A543.

39. National Medicine Policy of Islamic Republic of Iran. Ministry of Health & Food and Drug Administration; 2017.

Figures
Figure 1

Three-dimensional matrix of stakeholders’ saliences. Source: Mitchell et al., 1997, p. 874.
Welcome, presentation and filling conflict of interest form (10 minutes)

- Context overview and goals statement (15 minutes)
- Theory and terminology (10 minutes)

- Identifying stakeholders by brainstorming (30 minutes)
- Criticism, Consensus and categorization of identified stakeholders (30 minutes)

Coffee Break (15 minutes)

- Explaining three-dimensional matrix method and terminology (10 minutes)
- General group discussion to reach consensus for replacing identified stakeholders in suitable zone (50 minutes)
Figure 2

Structure of the focus group discussion panel.

Figure 3

Multilevel stakeholders of private community pharmacy. Identified after brainstorming, focus group discussion and expert consensus. (From inner to outer layer: internal stakeholders, consumer and supplier, observers, and non-specific stakeholders.)
Figure 4

Three-dimensional matrix. An analysis of private community pharmacy stakeholders according to three attributes of power, legitimacy and urgency.
Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- COREQ.docx
- questionnaire.docx