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Designing a Qualitative Model of Citizen Participation to Improve the Quality of Healthcare Services (Case Study: Zabol Hospitals)

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ABSTRACT

Citizen participation in the healthcare sector, particularly in improving the quality of medical services, plays a highly significant role. This participation not only contributes to enhancing service quality but also leads to increased patient satisfaction, transparency within the healthcare system, and greater accountability among officials. The purpose of this research was to design a qualitative model of citizen participation aimed at improving the quality of services delivered in the healthcare domain. This study is applied in terms of purpose and descriptive–survey in terms of data collection, conducted in the field. The statistical population included hospital managers, healthcare and treatment specialists, physicians, paramedics, and faculty members of Zabol University of Medical Sciences. In total, 56 individuals were selected for the qualitative sample. The required information was obtained through interviews in order to identify the effective criteria for citizen participation in healthcare services, and then extracted for analysis. The results indicated six main criteria: altruistic participation; investment-based participation; organizational and institutional participation; participation through feedback and hospital service performance; participation through hospital suggestion systems; and participation through legal supervision of citizen involvement in healthcare. Altogether, these dimensions reveal that citizen participation can only lead to improved quality of healthcare services if it is simultaneously strengthened at the individual and altruistic level, supported through investment and organizational mechanisms, integrated into decision-making via authentic feedback and suggestions, and institutionalized through legal and supervisory frameworks. In other words, each of these criteria together construct a comprehensive model of citizen participation that can pave the way for a sustainable and effective enhancement of the healthcare system.

Keywords: Participation, Citizens, Healthcare Services

Introduction

Citizen and patient participation in healthcare systems has gained increasing attention over the past decades as a central element of health governance, service quality improvement, and policy legitimacy. The growing body of literature recognizes that involving citizens in decision-making, planning, and evaluation processes can improve the responsiveness, transparency, and accountability of health systems, while also enhancing patient satisfaction and health outcomes [1-3]. The rationale for strengthening citizen participation lies not only in democratic values but also in its practical contribution to health service effectiveness and sustainability.

One of the early debates around citizen participation in healthcare revolved around its potential to empower communities and bridge the gap between healthcare providers and users [1]. Empowerment through participation is often presented as a corrective to traditional top-down models of health reform, where patients are treated as passive recipients of care rather

than active contributors. By enabling participation, healthcare systems can foster trust, collective responsibility, and a sense of ownership among users, which are critical to building resilient and equitable services [4, 5].

The literature shows that citizen participation is a multidimensional phenomenon that encompasses different forms and degrees of involvement, ranging from information provision and consultation to co-decision and shared management [3, 6]. In the Italian healthcare system, for example, Mixed Advisory Committees were introduced to institutionalize participatory mechanisms, though studies have pointed out both successes and limitations in terms of inclusiveness and influence on actual decision-making [3]. Similarly, in England, service user involvement has been explored in regulatory inspections conducted by the Care Quality Commission, where patients and citizens played roles in shaping evaluative judgments about providers [7].

International experiences confirm that participation contributes to service accountability and quality assurance, yet its practical implementation is often constrained by institutional, cultural, and resource barriers [6, 8]. For instance, research in regional health authorities in Canada highlighted structural challenges that limited the scope of public engagement, such as bureaucratic rigidity and the dominance of professional expertise [6]. On a broader scale, systematic reviews of engagement initiatives in low- and middle-income countries demonstrate that participation can enhance inclusion and transparency but requires strong institutional frameworks to avoid tokenism [8].

Recent studies emphasize the evolving forms of citizen and patient involvement, particularly in the context of digital health and telemedicine. Alami and colleagues [9] examined how citizen-patients could be meaningfully involved in the development of telehealth services, finding that their contributions not only improved service design but also promoted legitimacy and trust in new technologies. Similarly, Luisi and Hämel [5] explored practitioners' and stakeholders' perceptions of community participation in Italy's primary healthcare system, underlining that empowerment and participation are intertwined processes that reinforce system sustainability.

Beyond service delivery, citizen participation plays a critical role in research and innovation. Jennings et al. [10] developed a framework for Patient and Public Involvement (PPI) in qualitative mental health research, showing how collaborative data analysis benefits from the insights of those directly affected by health services. In chronic disease contexts, Areia and colleagues [11] investigated the perspectives of patients, carers, and citizens in respiratory disease research, demonstrating that participatory approaches contribute to more relevant and patient-centered outcomes. Likewise, Saini et al. [12] highlighted the value of involving patients and the public in health services research, noting improvements in study design, relevance, and dissemination.

At the policy level, the creation of participatory spaces is seen as a mechanism for promoting social justice and accountability. Renedo and Marston [13] provided an ethnographic account of how citizens engage in healthcare spaces, pointing out that such involvement reshapes power relations and creates new dynamics of inclusion and exclusion. Williamson [2] further argued that participation requires stronger ethical support to ensure that citizen and patient voices are genuinely respected rather than instrumentally used.

The digital era has introduced new opportunities and challenges for citizen participation in healthcare. Gao et al. [14] analyzed public comments in Chinese smart-city governance and found that digital platforms could facilitate engagement but also risked amplifying inequalities in voice and influence. Similarly, Zhen [15] explored the impact of digital technology on health inequality in China, emphasizing that while digitalization can expand access, it can also widen gaps if vulnerable

populations are excluded. The theme of digital readiness in healthcare management has been taken up by Steenkamp [16], who surveyed leaders and found that operational preparedness is critical for integrating digital health participation effectively.

In low-resource contexts, the role of citizen participation is equally pressing. Waddington et al. [8] showed that engagement initiatives in low- and middle-income countries require not only institutional will but also resources to sustain inclusive and accountable processes. This resonates with broader calls for participatory approaches that recognize cultural diversity, address inequities, and strengthen health governance at both local and national levels [1, 6].

Another strand of literature focuses on how participation links to health promotion and community well-being. Golabchi, Kiaee, and Kameli [17] demonstrated in the education sector that designing superior service delivery models with participatory input enhances public satisfaction. While their study was situated outside of healthcare, the parallels suggest that participatory service design has cross-sectoral benefits for improving responsiveness and trust. In mental health, Rawal [18] argued that raising awareness and improving access to services for postpartum women requires participatory strategies to identify barriers and co-create solutions. Such insights reinforce the broader point that participation is not only a technical tool but also a means of promoting inclusiveness and equity in diverse contexts.

The literature also highlights qualitative dimensions of participation, especially the perceived quality and authenticity of engagement. Mannarini and Fedi [4] showed that citizens' perceptions of participation quality affect their willingness to engage and their trust in institutions. Luisi [5] similarly reported that participation without genuine empowerment risks disillusioning communities and undermining healthcare reforms. Jennings et al. [10] added that collaborative approaches to data analysis strengthen not only research quality but also participants' sense of ownership.

Despite the consensus on its importance, challenges to effective participation remain. Issues such as unequal representation, professional dominance, lack of resources, and unclear mechanisms for integrating feedback into decision-making are widely reported [6, 7, 13]. Williamson [2] has cautioned that without ethical support, participation can be tokenistic. Gao [14] and Zhen [15] further illustrate how digital divides and socio-economic inequalities can undermine the inclusivity of participatory processes.

In sum, the evidence indicates that citizen and patient participation in healthcare is essential for achieving equitable, effective, and responsive health systems. It contributes to service quality, accountability, empowerment, and trust while also fostering innovation and inclusiveness. However, the success of participatory approaches depends on institutional design, cultural context, and resource allocation. Studies across different regions and domains consistently show that participation must be genuine, structured, and ethically supported to realize its full potential [1-18].

The present study builds upon this extensive literature by designing a qualitative model of citizen participation aimed at enhancing the quality of healthcare services in Zabol hospitals.

Methodology

This research was conducted with a qualitative approach and, in terms of purpose, falls under the category of applied studies. Regarding data collection, the present study has a survey and field nature, as the data related to the research variables were collected through expert surveys and semi-structured interviews. Two methods—library-based and field—were employed to gather information. In the library method, the theoretical foundations, background, theories, and findings

of related studies were extracted from books, scientific articles, and dissertations, with scientific note-taking serving as the main tool. In the field method, data were collected through interviews with members of the statistical population, including hospital managers, healthcare and treatment specialists, physicians, paramedics, and faculty members of Zabol University of Medical Sciences. At certain stages, additional tools such as documents, questionnaires, online sources, and, in specific cases, direct observation were also used to complete the information.

The statistical population of the study consisted of managers, physicians, and experts related to the healthcare field, and in the qualitative section, 56 experts and managers from these centers were selected as the sample. To identify the indicators and criteria influencing the citizen participation model for improving the quality of healthcare services, in-depth interviews were conducted with managers, experts, and physicians. The collected data were analyzed using the qualitative content analysis method. The data analysis process was based on the Clarke and Braun coding model. Accordingly, the content of the interview files was first transcribed, and the responses were categorized according to the research questions. Then, the coding process began, meaning that the semantic units within the data that were conceptually valuable and relevant to the research problem were extracted as initial codes. Each code represented a feature or latent meaning of the data. After extracting the initial codes, a review stage was carried out, during which the codes were refined at the level of coded summaries to ensure their validity. The codes were then organized into sub-themes, and finally, the main themes were defined and stabilized. This process enabled the identification of the key themes influencing citizen participation in improving the quality of healthcare services.

Findings and Results

To address this issue, the data collected from semi-structured interviews with 56 participants were analyzed, and the initial codes are reported in Table 1. According to the information presented in this table, the highest frequency of initial codes was related to the development of new technologies in the healthcare sector, the expansion of paraclinical services, and telecommunications. Following these, the initial codes associated with the construction and equipping of hospitals and private clinics, the formation of patient associations to support patient rights and create support networks, the establishment of private healthcare networks, as well as the implementation of suggestion systems as an effective tool for encouraging citizen participation in improving the quality of healthcare services were identified. These results indicate that a focus on technological innovations, the development of complementary services, and the provision of structural platforms for citizen participation can play a decisive role in enhancing the quality of services.

Table 1

Initial Codes Related to Interview Keywords

Code	Interview Keyword Titles	Frequency
11	Provision of medical equipment such as donating imaging devices, laboratory equipment, etc. to hospitals and healthcare centers	48
12	Collecting financial donations to purchase equipment needed by patients with special conditions	52
13	Covering treatment costs for needy patients, especially children with difficult-to-treat illnesses	42
14	Financial support for patients undergoing complex surgical procedures	53
15	Financial support for the production of rare and special medicines	36
16	Construction and equipping of clinics, hospitals, and healthcare centers in deprived areas	50
17	Funding for conducting research on special diseases	49
18	Organizing workshops and training courses on various health topics such as healthy nutrition, common diseases, personal and environmental hygiene	44
19	Conducting awareness campaigns on contagious diseases and their prevention methods	31
20	Providing rehabilitation services to people with disabilities	40
21	Establishing patient associations to support patient rights and create support networks	52
22	Providing home care services for special patients	22

23	Monitoring the performance of healthcare centers and producing independent reports	41
24	Collaboration with universities and research centers to develop new treatment methods	25
25	Organizing sports and recreational programs to promote physical and mental health	28
26	Construction and equipping of private hospitals and clinics	52
27	Development of paraclinical services	53
28	Development of specialized services in areas such as complex surgeries, innovative treatments, and intensive care	49
29	Development of new technologies in the healthcare sector	54
30	Expansion of supplementary insurance services	44
31	Establishment of private healthcare networks	51
32	Filing complaints against physicians or hospitals in cases of medical errors or dissatisfaction with services	47
33	Supervision of private healthcare centers	38
34	Cost transparency: regulations requiring transparency in treatment costs allow patients to be informed about their expenses	32
35	Protection of patient privacy: regulations guaranteeing patient privacy build trust between patients and healthcare providers	37
36	Ensuring patient rights: establishing a clear legal framework guarantees patient rights and allows them to use healthcare services with greater confidence	28
37	Responsiveness to complaints: the speed and quality of responses to patient complaints indicate the system's attention to citizen feedback	34
38	Use of feedback channels: the number and variety of feedback channels (such as online forms, phone, email, mobile applications) demonstrate the system's effort to receive feedback	44
39	Patient satisfaction: conducting regular surveys to measure patient satisfaction with the services provided	52
40	Changes made based on feedback: examining whether changes were implemented in response to received feedback	43
41	Ranking of healthcare centers: creating ranking systems for healthcare centers based on various indicators helps citizens choose the best facility	41
42	Electronic portals: many healthcare organizations have established electronic portals for receiving citizen suggestions and complaints	44
43	Direct hotlines: some healthcare centers have established direct hotlines for receiving citizen opinions and suggestions	39
44	Suggestion boxes: some healthcare centers have installed suggestion boxes for collecting written citizen feedback	41
45	Online surveys: collecting citizen feedback on received services through online surveys	22
46	Suggestion systems as a powerful tool to encourage citizen participation in improving the quality of healthcare services	51

After extracting the initial codes, the next step involved the classification process, in which the codes were organized into the main categories presented in Table 2. As shown in this table, the codes obtained in the previous stage were placed within broader concepts and categories. Accordingly, six main categories were determined to identify the indicators and criteria influencing citizen participation in improving healthcare services. These categories include altruistic participation, organizational and institutional participation, investment-based participation, legal supervision-based participation, feedback- and hospital performance-based participation, and participation through the establishment of hospital suggestion systems.

Table 2

Summary of Concepts and Main Themes

Initial Codes	Main Categories	References
Provision of medical equipment, collecting financial donations, covering treatment costs for needy patients, financial support for patients undergoing complex surgeries, financial support for the production of rare and special medicines, construction and equipping of clinics, hospitals, and healthcare centers in deprived areas, funding for research on special diseases	Altruistic participation	330
Organizing workshops and training courses, conducting awareness campaigns, providing rehabilitation services for people with disabilities, establishing patient associations, providing home care services for special patients, monitoring healthcare centers and producing independent reports, collaboration with universities and research centers, organizing sports and recreational programs	Organizational and institutional participation	283
Construction and equipping of private hospitals and clinics, development of paraclinical services, development of specialized services such as complex surgeries, innovative treatments, and intensive care, development of new technologies in healthcare, expansion of supplementary insurance, establishment of private healthcare networks	Investment-based participation	303
Filing complaints against physicians or hospitals, supervision of private healthcare centers, transparency in healthcare costs, protection of patient privacy, ensuring patient rights	Legal supervision-based participation	182
Responsiveness to complaints, utilization of feedback channels, conducting regular patient satisfaction surveys, changes made based on feedback, ranking of healthcare centers	Feedback- and hospital performance-based participation	214
Establishment of electronic portals, direct hotlines, suggestion boxes, online surveys, suggestion systems	Participation through hospital suggestion systems	197

As illustrated in Figure 1, the greatest weight among the main criteria is attributed to altruistic participation with 330 points (22%), followed by investment-based participation with 303 points (21%), then organizational and institutional participation with 283 points (18%), feedback- and hospital performance-based participation with 214 points (14%),

participation through hospital suggestion systems with 197 points (13%), and, finally, legal supervision-based participation with 182 points (12%). Ultimately, the secondary and primary constructs were identified in Table 3.

Figure 1

Overall View of Extracted Main Themes

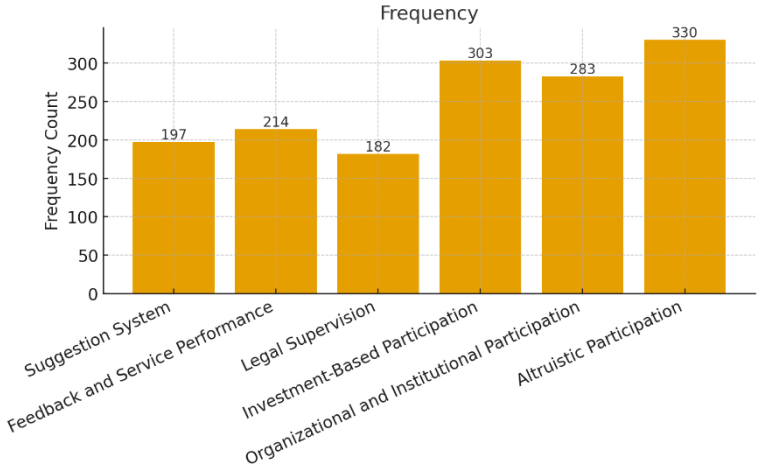


Table 3

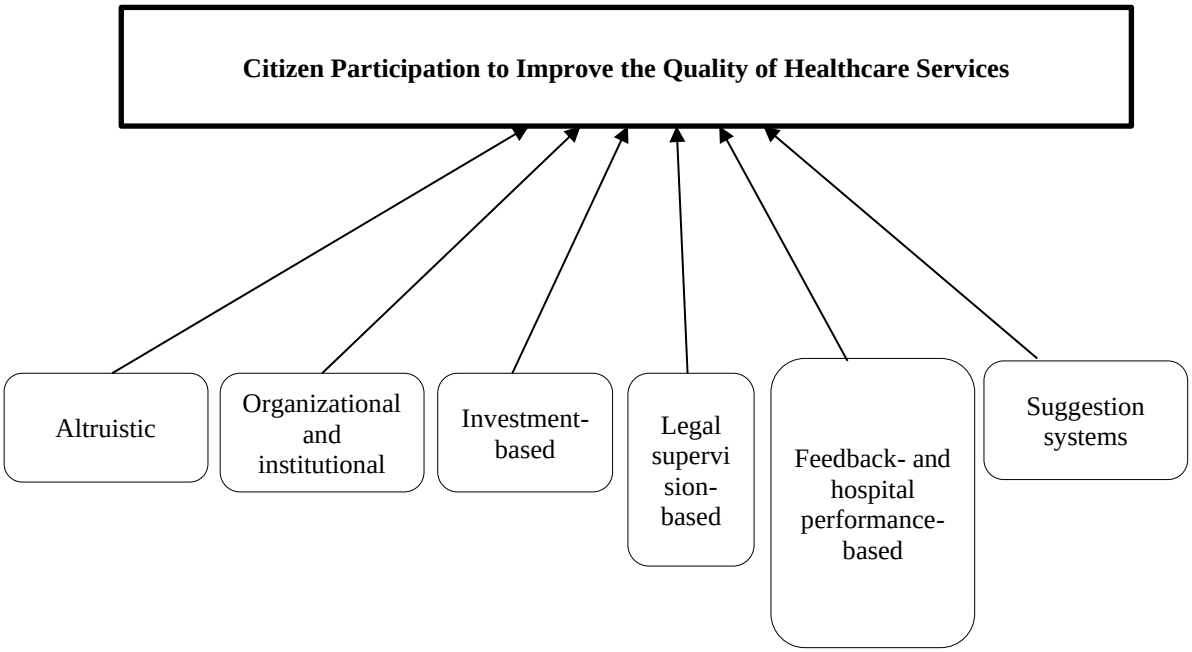
Secondary and Primary Constructs

Main Criterion	Sub-Construct	Code
Altruistic Participation (BP)	Provision of medical equipment	Bp1
	Collecting financial donations	Bp2
	Covering treatment costs for needy patients	Bp3
	Financial support for patients undergoing complex surgeries	Bp4
	Financial support for the production of rare and special medicines	Bp5
	Construction and equipping of clinics, hospitals, and healthcare centers in deprived areas	Bp6
	Funding for research on special diseases	Bp7
Organizational and Institutional Participation (NP)	Organizing workshops and training courses	Np1
	Conducting awareness campaigns	Np2
	Providing rehabilitation services for people with disabilities	Np3
	Establishing patient associations	Np4
	Providing home care services for special patients	Np5
	Monitoring healthcare centers and producing independent reports	Np6
	Collaboration with universities and research centers	Np7
	Organizing sports and recreational programs	Np8
Investment-Based Participation (IP)	Construction and equipping of private hospitals and clinics	Ip1
	Development of paraclinical services	Ip2
	Development of specialized services (complex surgeries, innovative treatments, intensive care)	Ip3
	Development of new technologies in healthcare	Ip4
	Expansion of supplementary insurance	Ip5
	Establishment of private healthcare networks	Ip6
Legal Supervision-Based Participation (SP)	Filing complaints against physicians or hospitals	Sp1
	Supervision of private healthcare centers	Sp2
	Transparency in healthcare costs	Sp3
	Protection of patient privacy	Sp4
	Ensuring patient rights	Sp5
Feedback- and Hospital Performance-Based Participation (FP)	Responsiveness to complaints	Fp1
	Utilization of feedback channels	Fp2
	Patient satisfaction surveys	Fp3
	Changes made based on feedback	Fp4
	Ranking of healthcare centers	Fp5
Participation Through Hospital Suggestion Systems (GP)	Electronic portals	Gp1
	Direct hotlines	Gp2
	Suggestion boxes	Gp3
	Online surveys	Gp4
	Suggestion systems for healthcare quality improvement	Gp5

Based on the items and the main and secondary themes, the qualitative research model is presented in Figure 2.

Figure 2

Final Research Model



Discussion and Conclusion

The findings of this study revealed six main categories of citizen participation that play an important role in improving the quality of healthcare services in Zabol hospitals: altruistic participation, investment-based participation, organizational and institutional participation, legal supervision-based participation, participation through feedback and hospital performance, and participation through hospital suggestion systems. Among these, altruistic participation was found to carry the greatest weight, followed closely by investment-based forms. These results underline the multidimensionality of citizen participation and suggest that a comprehensive framework must address diverse pathways of involvement in order to enhance health service quality effectively.

The prominence of altruistic participation reflects the deep cultural and social traditions that link health improvement to community solidarity and voluntary contributions. This aligns with earlier scholarship showing that citizen involvement is often motivated by collective values and social responsibility rather than purely institutional frameworks [1, 4]. For example, Higgins [1] noted that empowerment and citizenship are intertwined, and community-driven forms of participation can offer remedies to structural deficits in health reform. Similarly, Mannarini and Fedi [4] demonstrated that the quality of participation, as perceived by citizens, is shaped by the authenticity of engagement and the sense that contributions are valued. Our findings, particularly the weight given to charitable donations and support for vulnerable patients, reinforce these conclusions by highlighting altruism as a foundational driver in contexts where formal mechanisms may be limited.

The significance of investment-based participation is consistent with literature emphasizing the role of structural and financial resources in sustaining citizen engagement. Building hospitals, equipping clinics, and developing supplementary insurance schemes are not only material contributions but also reflect the broader notion of co-production in healthcare. Richardson and colleagues [7] argued that user involvement in regulatory inspections in England was most impactful when

supported by institutional resources and mechanisms that translated input into tangible improvements. Likewise, Waddington et al. [8] found that in low- and middle-income countries, participatory initiatives were most effective when they were linked to resource allocation and transparency structures. The present results echo these findings by suggesting that investments in infrastructure and new technologies—when driven by citizen participation—contribute decisively to raising service quality.

Organizational and institutional participation emerged as another critical dimension, covering activities such as the creation of patient associations, health education programs, and partnerships with universities. These results align closely with Areia and colleagues [11], who found that citizens, patients, and carers play valuable roles in research and service improvement, especially in chronic disease contexts where long-term cooperation with institutions is essential. Jennings et al. [10] also emphasized the need for structured frameworks to support patient and public involvement in collaborative research, noting that institutional backing enhances both methodological rigor and participant satisfaction. In our study, such organizational mechanisms were evident in the emphasis placed on associations and collective initiatives that go beyond individual contributions, suggesting that institutionalized spaces for participation provide stability and continuity.

Participation through legal supervision and regulation, though weighted less heavily, nonetheless emerged as an important category. This corresponds with earlier arguments that citizen engagement requires ethical and legal safeguards to avoid tokenism and ensure accountability [2, 3]. Williamson [2] argued that without ethical support, patient participation risks being symbolic rather than substantive. Similarly, Serapioni and Duxbury [3] showed that advisory committees in Italy provided a legal and institutional framework for involvement, though their effectiveness depended on how well they were integrated into decision-making processes. The presence of legal mechanisms in our results, including complaint procedures and the enforcement of patient rights, supports this view by demonstrating that regulatory structures reinforce citizen trust in healthcare services and create mechanisms of accountability.

The dimension of participation through feedback and hospital performance reflects the increasing importance of responsiveness in healthcare systems. In our findings, feedback mechanisms such as patient satisfaction surveys, responsiveness to complaints, and ranking systems were identified as essential tools. These results resonate with Renedo and Marston [13], who observed that citizen involvement reshapes the dynamics of healthcare by creating spaces where feedback influences practice. Saini et al. [12] similarly found that integrating patient and public input into health research improved the quality and relevance of outcomes. Furthermore, Higgins [1] argued that accountability structures such as feedback loops are critical to empowering communities. The findings of this study extend these arguments by showing that patient-centered feedback not only reflects satisfaction but also provides actionable data for continuous improvement.

The role of suggestion systems, including electronic portals, direct hotlines, and online surveys, indicates the growing impact of digital tools on citizen participation. These results correspond with recent studies exploring the intersection of digitalization and health equity. Gao et al. [14] found that digital platforms enabled broad public involvement in urban governance, but also cautioned against reinforcing inequalities in voice. Zhen [15] extended this argument in the healthcare context by demonstrating that digital technology both expands opportunities and exacerbates disparities in access. Steenkamp [16] highlighted the importance of digital readiness among healthcare leaders, noting that the success of participation via technological systems depends on organizational preparedness. The evidence from our study supports these

claims, as citizens in Zabol increasingly engaged through digital and technological mechanisms, underscoring the necessity of integrating innovation with inclusive policies.

The relative weighting of the six dimensions is noteworthy. The highest emphasis placed on altruistic and investment-based participation reflects the socio-economic context in which community solidarity and financial contributions remain primary modes of engagement. This contrasts somewhat with findings from high-income countries where structured institutional participation and regulatory involvement tend to dominate [3, 7]. However, the presence of digital suggestion systems and feedback mechanisms demonstrates convergence with global trends toward technologically mediated participation [14, 15]. Thus, the results highlight a hybrid model where traditional and modern forms of participation coexist, adapting to local needs while resonating with international experiences.

In addition, our findings reaffirm that participation is not monolithic but layered, with complementary pathways that reinforce each other. For example, altruistic contributions can provide the resources that enable institutional initiatives, while digital feedback systems translate individual experiences into systemic reforms. This holistic approach aligns with the perspective advanced by Luisi and Hämel [5], who argued that empowerment and participation must be viewed as interconnected processes that contribute to sustainability in primary healthcare. Similarly, Alami and colleagues [9] emphasized that patient involvement in telehealth development improved both service quality and trust, highlighting the importance of integrating diverse forms of engagement. The evidence from Zabol hospitals demonstrates the relevance of such integrated models, where each mode of participation contributes to a broader ecosystem of quality improvement.

From a comparative perspective, the findings resonate with studies across various national and institutional contexts. In Canada, Frankish et al. [6] identified structural barriers to meaningful participation in regional health authorities, underscoring the challenge of moving beyond consultation. In Italy, Luisi [5] and Serapioni [3] described institutional mechanisms designed to embed participation, while in England, Richardson [7] and Renedo [13] examined the impact of user involvement on regulatory practices. In low-resource settings, Waddington et al. [8] reported that citizen engagement was associated with greater accountability but also required institutional will and resources. Taken together, these studies reinforce the validity of the categories identified in this study and highlight their relevance to diverse healthcare environments.

Another significant implication of the findings is their contribution to the debate on health equity and inclusiveness. By identifying both altruistic and digital forms of participation, the study points to the need for strategies that ensure equitable access to engagement opportunities. Zhen [15] warned that digital innovations could widen inequalities if marginalized groups are excluded, while Rawal [18] highlighted that participation is particularly critical in addressing barriers to care for vulnerable populations such as postpartum women. The Zabol case underscores this challenge, showing that while community donations and digital tools expand opportunities, deliberate policies are needed to guarantee inclusivity.

Overall, the results demonstrate that citizen participation in healthcare is multifaceted, context-dependent, and evolving. It involves a complex interplay between traditional forms of engagement rooted in solidarity, institutional mechanisms designed to provide structure, and modern technological tools that expand access and responsiveness. This aligns with the broader international literature, which consistently emphasizes that participation contributes to quality, accountability, empowerment, and trust [1-18].

This study was conducted in the specific context of Zabol hospitals, which may limit the generalizability of the findings to other regions or countries with different socio-economic, cultural, and institutional settings. The qualitative approach, while allowing for in-depth exploration of participation dimensions, also relies heavily on the perspectives of a relatively small group of experts and stakeholders. As such, the findings reflect interpretations and may not capture the full diversity of citizen experiences. Moreover, resource and time constraints restricted the ability to conduct longitudinal assessments of how participation impacts healthcare quality over time.

Future studies should expand the scope of inquiry to include diverse healthcare contexts, both within and beyond Iran, to assess the transferability of the model developed in this study. Comparative research across regions with varying levels of economic development and institutional capacity would provide valuable insights into the adaptability of participation frameworks. In addition, longitudinal studies are needed to examine how participation influences healthcare outcomes over extended periods. Quantitative methods could also be employed alongside qualitative approaches to validate and measure the impact of participation more systematically.

Policymakers and healthcare managers should recognize that effective citizen participation requires a balanced approach that integrates altruistic, institutional, financial, legal, feedback-based, and digital mechanisms. Efforts should be made to design inclusive policies that ensure marginalized groups have equal access to participatory opportunities. Investments in digital infrastructure must be matched with strategies to bridge the digital divide, while legal and regulatory frameworks should guarantee that participation is substantive rather than symbolic. Encouraging partnerships between hospitals, universities, and community associations can further institutionalize participation, ensuring that citizen input is systematically incorporated into healthcare improvement processes.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Written consent was obtained from all participants in the study.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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