Original Article

Exploring faculty experiences in voluntary social activities: A qualitative study within the context of social accountability

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Abstract

Background & Objective: Faculty members, given their unique position within the university, can significantly contribute to enhancing social responsibility. This study aims to elucidate the experiences of faculty members engaged in voluntary social activities

Material & Methods: This qualitative research employed a conventional content analysis approach. The study involved 15 faculty members from Isfahan University of Medical Sciences, selected using purposive sampling. Data were gathered through semi-structured interviews and analyzed using MAXQDA software.

Results: The data analysis revealed four main categories, including "existential philosophy of social activity", "the actual capabilities of social activity", "the bottlenecks of the path of social activity", and "operational strategies", along with 12 subcategories. These subcategories encompassed various aspects such as "Ensuring the health of society", "responding to spiritual needs", "cultivating responsible students", "the university's supportive and coordinating role in social activity", "the role of professors", "absence of a unified trustee", "unprofessional behavior of some managers of organizations", "resource and operational limitations", "promotion and promotion of socially active professors", "development in the search for answers and people's participation", "sustained follow-up in social activities" and "society's needs are the cornerstone of actions" were obtained.

Conclusion: The findings underscore the need for an effective system to enhance voluntary social activities among faculty members. By closely collaborating with other organizations, addressing health needs, and cultivating responsible students, viable solutions can be devised and implemented to address societal health issues. Furthermore, fostering public engagement and inquiry related to health is imperative for the success of these initiatives.

Keywords: social accountability, faculty, voluntary social activities

Introduction

Addressing the societal needs through higher education institutions represents a significant and fundamental challenge (1). The World Health Organization defines social responsibility within the context of public health activities as directing educational, research, and service efforts toward addressing the health concerns and priorities within a given community (2, 3). This approach aids in mitigating health disparities and advancing health outcomes for marginalized populations (4). The concept of social responsibility within the field of medical education is interpreted diversely, and its significance has garnered global attention, driving efforts to enhance

educational systems' responsiveness to societal needs (5). Within medical education, social accountability entails a commitment to delivering high-quality healthcare services and providing transparent and accurate information in response to societal needs (6, 7). Historically, medical education has singularly focused on the acquisition of technical knowledge and skills, whereas social accountability emphasizes the integration of a broader set of competencies, including cultural awareness, communication skills, support, and professionalism (2). Social accountability is considered a criterion for excellence and serves to enhance the

chances of accreditation for medical education institutions (8). Moreover, it plays a pivotal role in shaping students' education and overall development (9). Consequently, universities are encouraged to actively foster partnerships, establish supportive networks for students' learning and community-based projects, and strive for diversity among their students, faculty, and staff, which fosters cultural understanding, removes barriers, and promotes equitable access to healthcare services (10, 11). Social accountability underscores the significance of professionalism and ethical conduct among healthcare professionals (12), yielding substantial benefits within medical education (13) by highlighting the importance of integrating sociocultural and ethical dimensions within medical education (14).

A 2023 review by Taha et al. concluded that existing social responsibility standards primarily emphasize education over the service and research functions of medical schools. To fortify the concept of social accountability, the standards should encompass all areas of medical school performance (15). In a 2020 study, Clithero-Eridon et al. emphasized the role of experienced faculty members in advancing social responsibility within medical education, as they can serve as guides for students, model socially responsible behaviors, and integrate social studies into the curriculum (12). In 2016, Adib et al. conducted a study aiming to elucidate the clinical skills necessary for training general practitioners to embody social accountability. The researchers concluded that in order to instill social accountability in medical education, medical schools should equip graduates with a commitment to actively contribute to community health, professional ethics and conduct, effective communication and teamwork, primary care provision, health promotion, and disease prevention across various societal contexts (16).

A review of studies underscores that social responsiveness is a pivotal characteristic of medical education, focusing on improving public health and related services, particularly through educational endeavors. This focus also contributes to the cultivation of competent physicians. It is imperative for medical schools to implement social accountability activities to enhance the quality of medical education. The multifaceted and diverse role of faculty members in social responsibility initiatives encompasses mentorship, serving as role models, creating a supportive learning environment that fosters social awareness, cultural sensitivity, and empathy among students, as well as ensuring the integration of social responsibility principles within the curriculum (17). As social accountability and educational equity are integral components of the excellence and productivity plan, the Ministry of Health and Medical Education in Iran has developed a social resume system for professors, encompassing various significant indicators such as voluntary activities including participation in national projects aimed at equitable service distribution using the expertise of volunteer professionals in underserved areas, interviews on radio and television, and involvement in charitable initiatives focused on community health, such as nursing homes, among others. Through the experiences of the university's social accountability working group, which highlighted the challenges and opportunities associated with such activities, understanding the experiences of faculty members in voluntary social activities becomes crucial for evaluating the current landscape, identifying successes, challenges, and devising improvement strategies. By examining their perspectives, this insight not only adds to the existing knowledge base but also serves as a valuable resource for policymakers striving to fortify social accountability initiatives.

Material & Methods
Design and setting(s)
The study employed a qualitative approach utilizing conventional content analysis and was conducted at Isfahan University of Medical Sciences from 2023 to 2024.

Participants and sampling
The study included faculty members of Isfahan University of Medical Sciences who were purposefully selected based on specific inclusion criteria. These criteria comprised having experience in the field of voluntary social activities and willingness to participate in the study. In order to maximize diversity and gain comprehensive insights, participants were selected from various age groups, genders, fields, and levels of experience (**Table 1**).

Tools/Instruments
Data collection involved individual, face-to-face, and semi-structured interviews. Prior to the interviews, a written form was provided to potential participants to familiarize them with the study's title, purpose, and a summary of its implementation's necessity, along with the interview questions derived from literature review, stakeholder interviews, and expert input.

Table 1. Demographic characteristics of the participants

Participant Number	Gender	Age (Years)	Years of Social Activity	Academic Rank	Specialty
1	Female	40	10	Associate Professor	Health Education and Promotion
2	Male	46	13	Associate Professor	Emergency Medicine
3	Female	58	30	Associate Professor	Health Education and Promotion
4	Male	48	15	Associate Professor	Clinical Toxicology
5	Male	52	20	Associate Professor	Pediatrics
6	Male	62	31	Associate Professor	Social Medicine
7	Female	43	10	Associate Professor	Dentistry
8	Female	59	33	Professor	Health Education and Promotion
9	Male	57	30	Associate Professor	Nursing
10	Male	37	15	Associate Professor	Cardiology
11	Female	62	28	Associate Professor	Public Health
12	Male	44	15	Assistant Professor	Ethics
13	Male	54	27	Assistant Professor	Traditional Medicine
14	Female	39	6	Assistant Professor	Environmental Health Engineering
15	Female	41	11	Associate professor	Pharmacy

Data collection methods

The interviews, lasting approximately 45 minutes each, were conducted in conducive and quiet settings. Interviewers followed a guide comprising specific questions and also had the flexibility to delve into supplementary inquiries based on participants' responses. Sample interview questions included inquiries about the participants' motivations for engaging in voluntary social activities related to community health, required support, and encountered opportunities and obstacles. Additional open-ended questions were tailored to participants' responses, allowing for deeper exploration. Data saturation was achieved after 12 interviews, but the study continued to 15 interviews to ensure thoroughness and accuracy.

Data analysis

Data analysis followed the conventional content analysis approach, adhering to the steps outlined by Zhang and Wildemuth (18). This involved multiple readings of each interview transcript, coding of the information (words, sentences, and paragraphs), and continuous comparison, evaluation, and interpretation to develop categories and sub-categories. An example illustrating the stages of content analysis, coding, and the formation of sub-categories and categories is presented in **Table 2**.

Table 2. Induction process of the category "Existential Philosophy of Social Activity" from codes and subcategories

Participant Number	Quote	Code	Sub-category	Category
8	*According to the comprehensive concept and nature of health, health is an asset that cannot be regained if lost and has no way to compensate.*	Health; Great asset	Ensuring the health of society	
12	*Finally, responding to the feeling of altruism, altruism, learning from others, appreciating blessings, feeling inner satisfaction, these are the things that the social service providers themselves benefit from.*	Internal satisfaction with social activity	Responding to spiritual needs	Existential philosophy of social activity
6	*But I saw exactly how much interest and responsibility this work and participation has created in them.*	Student responsibility	Cultivating responsible students	

To ensure data accuracy, the study adhered to criteria proposed by Lincoln and Guba, namely credibility, dependability, transferability, and confirmability (19). These criteria were addressed by presenting interview texts and extracted codes to participants for validation, striving for maximum diversity among participants, accurately describing the characteristics of the study population and the research process for data transferability, and maintaining rigor and impartiality throughout the research process.

Results

In this study, 15 face-to-face interviews were conducted, yielding 978 open (initial) codes during the data analysis. After removing duplicate codes, the number was reduced to 692 primary codes. Induction resulted in 4 main categories with 12 sub-categories. These categories and sub-categories are concisely explained below.

Existential philosophy of social activity

This main category contains three sub- categories as follows:

Ensuring the health of society

Participants expressed that their goal in performing social activities was to improve the overall health of society, as health is regarded as an irreplaceable asset. They emphasized the significance of a healthy society for the country's development. One participant mentioned, "*According to the comprehensive concept and nature of health, health is an asset that if lost cannot be obtained and has no way to compensate*" (P8). Another participant stated, "*Society does not make sense of its development wheel without health, and its development rings suffer chatter and failure*" (P2).

Responding to spiritual needs

Participants highlighted that engaging in social activities not only positively impacts people's health but also brings internal satisfaction to the service provider, fostering a sense of altruism and appreciation for blessings. One participant mentioned, "*Finally, responding to a sense of altruism, altruism, learning from others, appreciating blessings, feeling inner satisfaction, these are the things that social service providers benefit from*" (P12), while another participant referenced religious beliefs, stating, "*...that God the Almighty says (in the holy book of the Qur'an): There is a clear right in their property for the needy and the deprived*" (P2).

Cultivating responsible students

Students as future providers of health services was deemed crucial, as it allows them to enhance their medical skills and gain a better understanding of societal needs, thereby motivating them to engage in future social activities. One participant emphasized this by stating, "*The student improves his medical skills while performing such activities*" (P10), and another mentioned, "*Let's make our students aware of the level of need of the society, which sometimes may be located at steps further away from our vision*" (P15).

The actual capabilities of social activity

This main category includes two sub- categories as follows:

The university's supportive and coordinating role in social activities

The university's pivotal role in enhancing the scope of social activities is undisputed. One of the university's initiatives in this realm involves facilitating the application of scholarly knowledge by professors to address the societal needs within the industry. As highlighted by a participant, "*We now have a department dedicated to liaising with the industry. This demonstrates the university's recognition that the new technologies and concepts developed by professors, along with their efficacy, will be connected and represented... The Agricultural Jihad, the Livestock Farmers' Union, the health center itself, the Farmers' Cooperative, and the industrial colleges all visited the university to discuss the healthcare requirements of their employees.*" Another measure undertaken by the university to enhance social activities is the support extended to Jihad's camps and socially engaged student organizations. "*We wholeheartedly endorse our students' initiatives,*" stated a contributor (P12).

The role of professors

Engaged in various activities such as educating students in the field, liaising with diverse organizations, and instilling hope and motivation in students, socially active professors play a crucial role. As one contributor expressed, "*We organize motivational sessions for new dormitory residents, aiming to continue fostering success in educating students and nurturing hope*" (P2). Moreover, during urgent health crises like the COVID-19 pandemic, professors have been diligently addressing people's healthcare needs with 24/7 availability. A participant noted, "*Professors actively participated in the hotline department, providing round-the-clock counseling and guidance*" (P9). Therefore, leveraging their expertise and experiences, professors serve as valuable assets in advancing the objectives of social activities.

The bottlenecks of the path of social activity

This primary category is further divided into 3 sub-categories as follows:

Absence of a unified trustee

Among the issues encountered in social activities are the absence of a dedicated coordinator for synchronization, inadequate information, difficulties in obtaining necessary permits, and improper allocation of existing resources. "*The multitude of interactions highlights the absence of a singular authority in this domain.*" (P12) This challenge leads to individual hardship, wastage of resources and facilities, educators' inability to focus on student learning, and the simultaneous functioning of healthcare centers: "*Without a central coordinator, accomplishing these tasks efficiently becomes extremely challenging, especially when it comes to official correspondence.*" (P4)

Unprofessional behavior of some managers of organizations

According to the participants, a critical issue is the lack of comprehensive approach among the country's officials toward social activities. This lack of attention leads to organizational managers neglecting their responsibilities in this area. This lack of responsiveness creates challenges for individuals and socially active university professors. "*A patient who comes repeatedly and receives the same response from the insurance office eventually resorts to seeking charitable assistance, highlighting the dire need for resolving people's issues*," expressed one participant (P15). Additionally, the management-centric nature of organizations results in fluctuations in the approach to social accountability based on changes in leadership. "*It's futile,*" lamented another participant (P14).

Resource and operational limitations

Alongside the introduction of educational topics and innovative university initiatives, challenges such as staffing shortages, inadequate facilities, substandard equipment, permit restrictions, transportation issues, and ensuring students' safety during attendance have emerged. "*In the core of our educational endeavors, the integration of community engagement and accountability should be evident, as reflected in the curriculum. However, practical solutions for its establishment and implementation are lacking,*" highlighted a participant (P9). Another issue pertains to the limited capacity of hospitals and insufficient funds for treating indigent individuals. "*Hospitals are currently grappling with financial constraints, making it unrealistic to expect them to reduce or waive their expenses,*" noted another participant (P2).

Operational strategies

This primary category is segmented into 4 sub-categories:

Promotion and promotion of socially active professors

Socially active professors play a pivotal role in student education. Advancement in any domain necessitates the proper nurturing of active human resources. Therefore, proficient professors should receive training in this area. Social activities should be regarded as a positive factor in discussions pertaining to the promotion and progression of professors. "*If these activities are taken into account in their promotion (the professors), they will be incentivized to engage in these fields,*" emphasized one participant (P6). Furthermore, professors should recognize their role as role models for students, and their social accountability should be reinforced. "*I propose and advocate for the university to steer its efforts towards engaging its professors in the realm of social responsibility,*" recommended another participant (P13).

Development in the search for answers and people's participation

Enhancing public knowledge regarding diseases and treatment methods, as well as bolstering the university's capabilities to address healthcare issues, are essential for mitigating challenges within the healthcare system. "*The more informed the patient is about the disease and its treatment, the better the outcomes,*" emphasized one participant (P15). Moreover, active involvement in community healthcare provision should be amplified. "*Optimal services and products necessitate individuals' desire and action, and without their participation, societal health objectives remain unachievable,*" stressed another participant (P3).

Sustained follow-up in social activities

A key approach to enhancing the efficacy of social activities involves offering sustained support to individuals in deprived areas following Jihad's camps, ensuring continuous monitoring of their treatment. "*We need to refer them to specialists and restructure the system to prevent the deterioration of individuals we have diagnosed; this alone can yield significantly better outcomes,*" stressed one participant (P9). This approach enhances the therapeutic impact and individuals' satisfaction. Similarly, successful research initiatives with proven efficacy should be consistently upheld: "*... We advocate for the implementation and ongoing*

continuation of these projects at the municipal and community levels," asserted another participant (P7).

Society's needs are the cornerstone of actions

To effectively address societal issues, it is imperative to first evaluate the genuine needs of the community, and subsequently, train the requisite human resources and implement operational measures based on these needs. "*Primarily, we must identify the societal needs, and then tailor the education of our university students to align with those needs*," emphasized one participant (P8). This needs assessment serves to enhance and optimize the effectiveness of these endeavors. "*Without conducting a needs assessment, one ends up providing Service A when it is not a priority, resulting in significant unnecessary energy expenditure*," highlighted another participant (P6).

Discussion

The study aimed to elucidate the experiences of faculty members engaged in voluntary social activities at Isfahan University of Medical Sciences, Iran, through the application of a qualitative method. Analysis of the interview data unveiled four primary categories, namely existential philosophy of social activity, the actual capabilities of social activity, the bottlenecks of the path of social activity, and operational strategies, encompassing 12 subcategories.

The first primary category, "existential philosophy of social activity," centered on the goal of serving people in the realm of health. Adib and colleagues assert that the primary objective of social activities is to address the health and hygiene needs of society (16). Additionally, meeting spiritual needs, such as a sense of altruism and belief, emerged as another motivator for participants engaging in social activities. Participants emphasized that as social beings, every Muslim has a role and responsibility toward fellow individuals (20). Furthermore, enhancing accountability levels necessitates the training of responsible students who will assume the role of future healthcare providers. Social accountability can contribute to the cultivation of competent and compassionate physicians, thus enhancing the quality of medical services offered to the populace (21).

In the actual capabilities primary category, the university's initiatives to support professors, students, and the establishment of the accountability work group were notable. A focus on social responsibilities and meeting obligations toward professors and students is essential for the university to promote societal development and success (22). Additionally, positive aspects include effective inter-departmental interactions and organizations' appeals to the university to address their healthcare challenges. Therefore, in pursuit of sustainable development, acquiring skills such as interdisciplinary thinking, problem-solving, teamwork, and holistic thinking is imperative (23, 24). Furthermore, professors are recognized as valuable assets in achieving accountability, given their capacity to guide students toward noble objectives through an effective amalgamation of diverse elements within the educational system (25).

The bottlenecks of the path of social activity encompass additional challenges stemming from other main categories. Inadequate management in social activities results in a myriad of problems, including inconsistencies, resource wastage, inefficiency of donors, and negative bureaucratic practices. Consequently, the pressing need for a primary trustee and coordinator becomes evident. Rahnavard and colleagues assert that the presence of singular and viable management models is essential to propel efforts towards accountability (26). Weaknesses in the collaboration among certain organization managers and the manager-centric approach within organizations, which leads to shifting organizational behaviors with changes in management, pose further challenges. Over time, these policies may erode public trust in these organizations (20). Administrative shortcomings within the university, such as budget and human resource constraints, lapses in ensuring student safety, absence of an operational framework for certain educational topics, and inefficacies in the traditional operations of the university's public participation unit, are evident. Similar issues are also reported in other programs within the healthcare system, as noted in the research conducted by Farzadfar et al., where analogous problems were highlighted in the implementation of the family doctor program (27).

In the last primary category, operational strategies, several key approaches were identified. These include empowering and modeling socially active professors through leveraging their experiences, promoting social responsibility among them, fostering their understanding of their exemplary role, considering professors' social activity in their promotion, and addressing the challenges of full-time faculty members interacting with charities. Experienced faculty members notably play a crucial role in promoting social responsibility, as they can guide

students, serve as behavioral models, and integrate social activities into the curriculum (15). Additionally, strategies encompassed the development of community awareness and participation through enhancing health literacy, raising public awareness of the university's capabilities, and soliciting public feedback on the outcomes of social activities. In this context, Abdolmaleki and Momeni emphasized the importance of a responsive health system that involves diverse organizational sectors in society and encourages their participation in various initiatives, thereby taking steps to preserve and enhance public health (5).

The next strategy involves advocating for sustained government and university support for the continuation of implementation and research projects. Zare et al. assert that the adoption of supportive government policies to foster enhanced university-industry interaction will drive innovation and technological advancement in the industrial sector, thereby maximizing the utilization of the abundant resources within the country's academic sector (28). Furthermore, examining the societal needs, educating students, and devising operational plans based on these needs were identified as additional solutions. This approach aids in preventing the squandering of time and energy. The objective of social accountability in the healthcare system is to address societal needs and resolve healthcare challenges while generating knowledge relevant to the society. To realize this objective, the health research system should continually assess and prioritize societal needs, and based on these priorities, implement and manage the necessary changes in implementation priorities, and execute and manage appropriate measures to address societal needs (5).

One of the significant opportunities presented by this study is the pivotal role of universities and professors. Leveraging the experiences, perspectives, and contributions of faculty members as crucial stakeholders in the educational process is fundamental in fulfilling the social mission of universities and advancing medical science education. It is anticipated that these experiences can facilitate the development and implementation of community-oriented and community-based educational programs by providing opportunities to engage with disadvantaged populations and comprehend their healthcare needs. Moreover, the experiences of faculty members can serve as a a source of inspiration and guidance for future initiatives, ultimately contributing to the continuous enhancement of medical education and healthcare delivery.

Some limitations of this study include conducting interviews solely with faculty members from a single university and encountering non-cooperation from certain socially active professors due to their busy schedules. It is recommended that future studies broaden the scope by conducting interviews with professors, managers, students, and retired individuals engaged in social activities in this university, as well as across different universities throughout the country.

Conclusion

Improving the level of voluntary social activity in the health system necessitates the establishment of a coherent and well-coordinated system that, through effective management and community-level research, identifies the healthcare needs of the populace and utilizes past successful experiences to inform decisions. By exercising appropriate foresight, practical solutions can be devised to address the healthcare challenges prevalent in society. Additionally, governmental support is essential to rectify shortcomings, ensure the continuity and sustainability of successful implementation plans, and enforce accountability among relevant organizations. Ultimately, raising awareness and fostering public participation in healthcare are indispensable for these measures to yield meaningful impact.

Ethical considerations

This study adhered to the ethical principles outlined in the Declaration of Helsinki. Approval was obtained from the Ethics Committee of Isfahan University of Medical Sciences (IR.ARI.MUI.REC.1402.318) prior to commencement. Full confidentiality of research data was assured. All participants received comprehensive information regarding the study's objectives and significance, and they voluntarily joined the research after providing both written and oral consent. Participants were explicitly informed of their right to withdraw from the study at any point.

Artificial intelligence utilization for article writing
No.

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Conflict of interest statement

Author contributions

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References

1. Porgoo M, Mirabi V, Reshadatjoo H, Vazifehdust H. Entrepreneurship development model design with a social accountability approach in higher education. Journal of Development & Evolution Mnagement. 2022;14(49):63-74.
[https://sanad.iau.ir/en/Article/949142]

2. Lindgren S, Karle H. Social accountability of medical education: aspects on global accreditation. Medical Teacher. 2011;33(8):667-72**.**
[https://doi.org/10.3109/0142159X.2011.590246]

3. Abdolmaleki M, Yazdani S, Momeni S, Momtazmanesh N. Social accountable medical education: a concept analysis. Journal of Advances in Medical Education & Professionalism. 2017;5(3):108-15.
[https://pubmed.ncbi.nlm.nih.gov/28761884/]

4. Kalajahi BT, Ali AP, Azmoudeh M. Effect of problem solving training on quality of life and responsibility of medical students. Depiction of Health. 2022;13(3):272-85. [https://doi.org/ 10.34172/doh.2022.33]

5. Abdolmaleki M, Momeni S. Social accountability in health research, a concept analysis study. Journal of Advances in Medical Education & Professionalism. 2022;21(1):53-65.
[https://www.magiran.com/volume/192733]

6. Barber C, Chahine S, Leppink J, van der Vleuten C. Global perceptions on social accountability and outcomes: a survey of medical schools. Teaching and Learning in Medicine. 2023;35(5):527-36.
[https://doi.org/10.1080/10401334.2022.2103815]

7. Rahbar TM, Heidarzadeh A, Khoshrang H, et al. Development the field of accountable education: along the way from the comprehensive health service center to the social accountable medical education center: the need for change. Research in Medical Education. 2022;13(4): 76-79.
[https://doi.org/10.52547/rme.13.4.76]

8. Ahmed MH, Abdalla ME, Taha MH. Why social accountability of medical schools in Sudan can lead to better primary healthcare and excellence in medical education? Journal of Family Medicine and Primary Care. 2020;9(8):3820-5.
[https://doi.org/10.4103/jfmpc.jfmpc_498_20]

9. Strasser R, Hogenbirk JC, Minore B, et al. Transforming health professional education through social accountability: Canada's Northern Ontario school of medicine. Medical Teacher. 2013;35(6):490-6.
[https://doi.org/ 10.3109/0142159X.2013.774334]

10. Vafaei poor R, Ghasemi M, Mohseni A. Development of a financial reporting readability model based on the disclosure of social responsibility, professional ethics, and tone management. Financial Accounting Research. 2022;13(4):115-38.
[https://doi.org/10.22108/FAR.2022.132574.1856]

11. Larkins SL, Preston R, Matte MC, et al. Measuring social accountability in health professional education: development and international pilot testing of an evaluation framework. Medical Teacher. 2013;35(1):32-45. [https://doi.org/10.3109/0142159X.2012.731106]

12. Clithero-Eridon A, Ross A, Albright D. Conceptualising social accountability as an attribute of medical education. African Journal of Primary Health Care and Family Medicine. 2020;12(1):1-8.
[https://doi.org/10.4102/phcfm.v12i1.2213]

13. Fitzgerald M, Shoemaker E, Ponka D, Walker M, Kendall C. Global health and social accountability: an essential synergy for the 21st century medical school. Journal of Global Health. 2021;11.
[https://doi.org/10.7189/jogh.11.03045]

14. Boelen C, Dharamsi S, Gibbs T. The social accountability of medical schools and its indicators. Education for Health. 2012;25(3):180-94.
[https://doi.org/10.4103/1357-6283.109785]

15. Taha MH, Abdalla ME, Wadi MMS, Khalafalla HE, Akbarilakeh M. The implementation of social accountability in medical schools in eastern Mediterranean region: a scoping review. Journal of

Taibah University Medical Sciences. 2023;18(1):84. [https://doi.org/10.1016/j.jtumed.2022.08.002]

16. Adib Y, Fathiazar E, Alizadeh M, Dehghani G. Exploration of the required clinical competencies for training general practitioners to acquire social accountability: a qualitative study. Journal of Medical Education Development. 2018;10(28):3-17. [https://doi.org/10.29252/edcj.10.28.3]

17. Masud N, Alenezi S, Alsayari O, et al. Social accountability in medical education: students' perspective. InFrontiers in Education 2022;7:1-9. [https://doi.org/10.3389/feduc.2022.868245]

18. Hosaini SJ, Firooz M, Karimi Moneghi H. Content analysis approaches and methods in Iranian nursing studies: a narrative review study. Journal of Torbat Heydariyeh University of Medical Sciences. 2022;10(2): 84-97. [http://jms.thums.ac.ir/article-1-1081-fa.html]

19. Mohsenpour M. Evaluation of qualitative data. The Journal of Research Committee of Students at Sabzevar University of Medical Sciences. 2011;16(2): 50-55. [https://beyhagh.medsab.ac.ir/article_642.html]

20. Torkzadeh J, Amiri M. Exploring barriers to accountability in social systems based on the Holy Quran. Islamic Social Studies. 2022; 27(124): 153-184. [https://doi.org/10.30513/iss.2022.3055.1171]

21. Mahdavynia S, Larijani SS, Mirfakhraee H, et al. The impact of socially accountable health professional education: systematic review. Journal of Family Medicine and Primary Care. 2022;11(12):7543-8. [https://doi.org/10.4103/jfmpc.jfmpc_835_22].

22. Faghihi A, Najaf BR, Karkar Zanjani A. Evaluate the accountability system in Islamic Azad University. Iranian Journal of Public Policy in Management [Internet]. 2012;3(5-6):15-27. Available from: [https://sid.ir/paper/199135/en]

23. Klaassen RG. Interdisciplinary education: a case study. European Journal of Engineering Education. 2018;43(6):842-59.
[https://doi.org/10.1080/03043797.2018.1442417]

24. Power E, Handley J. A best-practice model for integrating interdisciplinarity into the higher education student experience. Studies in Higher Education. 2019;44(3):554-70.
[https://doi.org/10.1080/03075079.2017.1389876]

25. Hashemian SM, Rahimnia F, Farahi MM. A model for teaching role behaviors of university professors: a qualitative study. Journal of Teaching in Marine Sciences. 2019; 6(3):1-16.
 [https://www.sid.ir/paper/262030/fa]

26. Rahnavard F, Jokar A, Taherpour H, Rasouli M. Developing a social accountability framework for public organizations in Iran. Public Organizations Management. 2019;7(2):115-34.
[https://sid.ir/paper/390504/en]

27. Farzadfar F, Jafari S, Rahmani K, et al. Views of managers, health care providers, and clients about problems in implementation of urban family physician program in Iran: a qualitative study. Scientific Journal of Kurdistan University of Medical Sciences. 2017;22(5):66-83. [https://doi.org/10.22102/22.5.66]

28. Zare Khormizi S, Hazeri A, Mostafavi E. Measuring inter-organizational interactions of scientific articles in the electrical and electronic engineering field in iran through a triple helix model approach. Sciences and Techniques of Information Management. 2023;9(2):311-38. [https://doi.org/10.22091/stim.2022.8390.1824]