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Abstract

Background: A 1985 law in the Islamic Republic of Iran integrated all health-related educational institutions into the Ministry of Health and established the Ministry of Health and Medical Education to set policies.

Aims: We aimed to classify the value concept of the policies that prioritized and to develop a conceptual value-based framework, for the Islamic Republic of Iran's healthcare and medical education systems.

Methods: We conducted this qualitative study using a critical, thematic content analysis of value-based statements and policy documents on health and the development of medical education published from 2009 to 2019 in the Islamic Republic of Iran. A total of 210 documents were reviewed and 7 were critically analysed. Value concepts were identified and coded.

Results: A total of 69 value concepts were classified into 28 subthemes and 5 main themes: mission values, principal values, procedural values, implementation values, and outcome values. We identified the pattern of the fundamental values to present our conceptual framework.

Conclusion: This comprehensive value-based framework can help establish a supportive value-based culture among policymakers, identify under- and over-emphasized issues, and

enhance the incorporation of fundamental values across the health and medical education system.

Keywords: medical education, health sciences, fundamental values, framework, policy, Iran

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Introduction

Values are those deep-rooted beliefs that influence behaviour and culture; they relate to the merit of ideas and moral perceptions (1,2). A community's shared values shape local policies and interactions among its members. It is evident that these shared values can change over time in line with the collective choices of the members (1–3).

The concept of values in policies and their impact on medicine and healthcare continue to expand. Values are often synonymous with ethics and "virtues" in health care. However, they are much broader concepts. "Value" covers the relationship between a wide range of related concepts, including ethical values, best interests, needs and preferences (1–4). On the other hand, in health policy arguments, values are classified as internal, motivational, trans-situational and goal-oriented abstract concepts. However, in actual health policies, the notion of fundamental values incorporates certain influential attributes (3,4). Values represent the highest priorities and can provide a roadmap for health system decision-makers (3–7).

Policy decisions comprise the logical processing of information, values and the interests of oneself and others (5). Obviously, different social groups have inherently different values

according to their social group and ethnic background. However, it may not in fact be people's values that differ, but their interests (1–5).

In a democratic system, the principle of respect for all voices means that there is a constant process of balancing, resolving conflict between various interests, and preventing the interests or perspective of a particular person or group from becoming too dominant (4,6). It is important to adopt an approach that refers to values as a guide when integrating a set of interests with another – not values that exist separately in different communities but values that are existent within most communities (4–7).

In values-based practice, no group, no particular interest or point of view has any automatic priority. The premise of values-based practice is respect for differences. In this regard, values-based practice is a process that supports healthcare decision-making where complex and conflicting values are in play (3,6). Values-based practice seeks to balance the values directly concerned in a given decision (1,6). Although stakeholders influence decisions, each system should prioritize policy options based on its fundamental values, not on the stakeholders' own interests (7). Policymakers have argued that, in addition to scientific and technical considerations, judgements based on moral and social values must be considered in values-based practice (1,4–7).

In 1985, the Iranian Parliament approved a motion to separate all health-related institutions and schools from the Ministry of Higher Education and integrate them into the Ministry of Health, and then establish the Ministry of Health and Medical Education(8) . Since then, the Ministry of Health and Medical Education has been the policymaker for healthcare and medical sciences education in the Islamic Republic of Iran and has been responsible for macro-level healthcare decisions and priority setting in medical education. In the past few decades, extensive efforts have been made to promote medical education to better align it with values (7–9). Most stakeholders would agree that values drive decision-making although they often disagree over which values matter the most (4,6,10).

A deeper understanding of the value components of the health system is critical but this would be inadequate without establishing the best approaches for medical education. A clarification of the fundamental values of the health system is a prerequisite for value-based medical education (2,7,9,10).

The implementation of values-based practice has proven to be difficult; however, this is the

situation and it requires a framework that may assist those implementing reform policies (6,9,10). Reading between the lines of policies is necessary to critically interpret values statements in context in order to discern their true meaning (6). Because the fundamental values for balanced decision-making are complex and may be conflicting (2,3), it seems necessary to develop a comprehensive values-based framework to classify fundamental values and relate them more clearly to policy options (2,7,11). Although a certain amount of literature has been published explaining the social and ethical values of public health policies (1,6,7,11,12), there has been no synthesis of the fundamental value concepts in health and medical education.

This study was conducted to examine the questions “What do Iranian health policy and medical education development documents call “values?” and “What are the main categories and subcategories of value concepts to build a value-based framework for health and medical education?” We aimed to answer these questions and synthesize the related evidence.

Methods

Outline

This critical review and thematic analysis of policy documents was carried out using Carnwell and Daly’s guidelines to increase transparency and applicability (13). The study included the following steps: a literature review of the related area, critical interpretation, the classification of results in the form of themes, and conceptualization through developing a thematic framework for the abstract concepts (15).

Step 1: Literature review

We conducted a narrative review focusing on values theories and values in health and medical education systems. The review adopted a narrative approach to research synthesis and sought to generate new insights by going beyond the summary of findings (14).

We searched the optimal combination of electronic databases, including Web of Science, Pub Med/MEDLINE, EMBASE, Google Scholar and CINAHL Plus in May 2019; this was limited to studies published after 1999. In December 2019, we updated the search to identify any possible new publications. The keywords included in the search strategy were “values” (MeSH Terms) “health policy/value”, “public policy/value”, “social values”, “health system values”, “educational values”, “societal values”, “priority setting” and “educational leadership”. Boolean logic using “AND, OR” was used to refine some articles.

We selected documents, reports and studies that reflected the values in health policies if they were published within the past 20 years. Electronic abstracts of all retrieved articles were reviewed and duplicate references were removed. Studies irrelevant to the research question were excluded. Considering the possibility of selection and language biases during the search, all studies deemed relevant were reviewed.

Both authors reviewed the full texts of potentially relevant articles to examine eligibility for inclusion.

Step 2: Critical interpretation of values in context to discern their true meaning

In parallel to the critical review and analysis of values theories and international health policy documents, we conducted a purposeful review and synthesis of health and medical education-related policies in the Iranian upstream documents to determine the fundamental values in our context. Using the finalized value concepts as keywords, a purposeful review was carried out to present comprehensive definitions of the fundamental values.

Upstream policy documents that reflected health education priorities “in action”, health higher education reform documents embodying the principles stated in the previous policy documents, and documents related to medical education reform policies were included in the review. In other words, different sets of values were considered in core policy orientations according to the healthcare setting and educational context. Daniels’ accountability for reasonableness framework promotes fair priority-setting processes (15). It covers 4 criteria: relevance, publicity, appeal/revision and enforcement. The policy documents we selected were analysed to ensure these quality criteria and Jupp criteria, including authenticity, representativeness of their class and clarity of the meaning of concepts (16).

We conducted a critical review of 7 Iranian policy documents relating to public health, medical education reform and scientific development published from 2009 to 2019, and analysed how they addressed values. The policy documents were: the Iranian Horizon 2025 (IH2025), the Health Comprehensive Roadmap, the General Health Policy, the General Science and Technology Policy, the Geographic Expansion of Medical Education, the Comprehensive Reform and Innovative Plan of Medical Education and the Basic Iranian Progress Model.

Step 3: Thematic analysis in narrative synthesis

Narrative synthesis is commonly used in systematic reviews, especially when there is high heterogeneity in the included literature. Besides this, the thematic analysis provides a means of organizing the findings from diverse documents and reports (18). Our thematic analysis developed an inductive approach without a set of a priori themes to guide analysis from the outset. We extracted the initial codes for value concepts from the documents and the subthemes from the code categories. This step involved sorting and collating all the potentially relevant abstract code extracts into themes (15,17).

We followed these analytical stages.

1. Open coding was the start of the data analysis to create the codes for extracting and classifying value-based policy content. We broke the value statements in the policies into meaningful parts to generate the codes.
2. Codes were organized into subthemes. Searching for subthemes began when all data had been initially coded and collated, and a list of the different codes identified across the data set had been developed. The primary subthemes had clear definitions and were relevant to the secondary subthemes.
3. Main themes were developed. We generated the themes using the semantic proximity of the subthemes to abstract the most general value concepts that included the subthemes. We separated the broad and specific enough themes. After a few rounds of refinement vis-à-vis the classes of subthemes and the main themes regarding their implicit concept, we classified the main themes to propose the highest abstraction level.

We did not use computer software for storing data and retrieving codes.

Trustworthiness criteria for thematic analysis outlined by Lincoln and Guba were met (17,18). Although the thematic analysis as documented has been presented here as a linear, multi-phased method, it is an iterative and reflective process that develops over time and involves a constant moving back and forward between phases.

We endeavoured to make our study credible and confirmable through triangulating different data sources, prolonging engagement and reflective thoughts about value concepts and researchers' consensus on themes throughout the entire study. To improve the auditability of the coding process, peer check were done. In the peer check, each phase of the study was

explored and the emerging codes, subcategories and main categories were rechecked by the research team (17). Any discrepancies were discussed by the authors and resolved by consensus.

Step 4: Conceptualization through developing a thematic framework

In the last stage of this critical analysis, conceptualization was conducted to explain the fundamental values framework. This final stage is critical in developing an innovative pattern of concept relationship (13,16). During the conceptualization, each subtheme was analysed to determine whether a sensible pattern was apparent.

Part of developing a conceptual framework was ordering the themes in a way that best reflected the value themes and concepts. The themes were reorganized until the researchers were satisfied that all data were represented in a meaningful and useful manner (16,17).

With the completion of the critical interpretative synthesis, the fundamental values for value-based healthcare and value-based medical education were explained, and finally, a novel conceptual framework was developed to incorporate Iranian health policy values into medical education.

Ethical considerations

All related ethical issues were observed. Ethical approval for this study was granted by the Medical Ethics Research Centre at Shahid Beheshti University of Medical Sciences as part of the postdoctoral research project for Dr Tabatabai, under the supervision of Dr Simforoosh.

Results

We determined the values in the Iranian policy documents and developed a conceptual framework for value-laden medical education to incorporate these values.

A total of 210 documents, including 10 upstream documents, 4 documents from the Deputy of Medical Education and 186 documents and resolutions from the centres under the Deputy of Education, were critically reviewed in the first step of the study. Seven criterion-approved

documents relevant to health and medical education development, including 5 upstream documents and 2 documents from the Deputy of Education, were thematically analysed.

A total of 69 value concepts in the selected policy documents were identified and coded. These were classified into 69 primary subthemes, 28 value-based subthemes and 5 main value classes (Table 1).

We identified a great variety of “value” concepts in the policy documents we analysed. Although few documents explicitly defined values, most implicitly did reflect on the meaning of value-based statements. The value classes that we established were determined along with the selected definition for each are presented in Table 2 .

According to the Iranian upstream documents, values are the basis for future system orientations and should not be violated during the implementation of policies. The General Health Policy was the richest value-laden policy document. The General Health Policy and the Comprehensive Reform and Innovative Plan of Medical Education had the most value-laden policy statements concerning the role of medical education in meeting current national health priorities (Table 1).

Commitment to divine belief (belief in God and religion), justice, education, research, accountability, health promotion, independence, scientific authority and progress were values emphasized in all 7 of the documents we analysed. Ethics, spirituality, innovation, competency and quality were specified within 6 of them (Table 1).

We identified the pattern of the fundamental values to present in our conceptual framework. This proposed value-based framework for the health and medical education system places education, research and healthcare at its centre. The value-based framework

also comprises circles that reflect values within 4 hierarchical levels, determinants of principles and procedural, implantation and outcome values (Figure 1).

Discussion

Proposed value-based framework

This study presents a thematic perception of values in Iranian health policies and a detailed value-based medical education policy orientation framework for organizing and interpreting the value concepts in policy analysis and their relationships to each other.

To the best of our knowledge, this value-based framework represents the first synthesis of the fundamental values in health and medical education policy documents.

The proposed framework includes a taxonomy of values, which classifies many relevant value concepts that are distinct from each other (in the form of ideas or actions) (1–4). Our value-based framework challenges some current approaches in health priority policy arguments (1–4,6,12). Values were discussed as means versus ends in policy frameworks (6,7,11,19,21), while in the proposed framework they were discussed as mission, principal, procedural, implementation and outcome values.

A deeper understanding of the components of value-based healthcare is critical for health promotion (2) but this would be inadequate without establishing the value-based medical education approach. In this approach, educational decisions should be value-based to fulfil healthcare demands (9,10,31).

Value-based healthcare is a way of achieving the triple aim of the health system: improving the patient experience of care, improving care and reducing the per capita cost of healthcare (Table 2). Additionally, a fourth aim that has been proposed by others: improving the experience of physicians (31,32).

As health system values and priorities change, developing a value-based medical education system for the 21st Century is another challenge (31). Some health priority frameworks have been developed in various contexts, however, their applicability depends on their adaptability to local values and the health system priorities of each country (6,12,13,25). Although the findings for our value concepts analysis share common values with Western frameworks, some differences do exist. Some of the classified values in our 5-class framework (Table 2) are similar to the values in the 2-class Clark–Weale framework for health priorities analysis, including justice, freedom of choice, collaboration, cohesion, responsiveness, transparency and effectiveness (21).

There are strong relationships between culture and religious values in the Islamic Republic of Iran and similar social contexts. Spiritual, religious, ethical and moral values reflect the principal values of the Iranian community. As in many other countries, religious values are the basis for many social norms and ethical decisions in medicine (7,32). The proposed value-based framework could ensure that principal local values, such as religious values and cultural values are incorporated into clinical decisions. Also, there is a relative gap in the previous frameworks since the essential role that medical education plays in contributing to health promotion is not included (9,10,21,31,33).

Although at the nationally level, high-value health policy documents may exist, few medical curricula have actually incorporated the healthcare values into their medical education programmes. There is a worldwide demand to provide education on healthcare values (33). Moreover, medical educators need to integrate the value concepts of value-based healthcare in medical education (9,31,34). In this regard, strategic programmes can enable the implementation of required interventions for the value classes in health and medical education policies (34,35). These studies revealed the lack of a value-based medical education model as being the main barrier to implementing value-based healthcare. One strategy for addressing these challenges would be to model the fundamental values of the health system which can be incorporated across diverse medical education settings.

The proposed framework provides more detailed information on the role of value-based medical education in health promotion and addresses the relative gap in the current framework. Our study, therefore, takes not only a healthcare-empowering approach but also a medical education-empowering approach. The value-based framework can add valuable capacity to the medical education system, link specific interventions into various value components and improve value-based medical education (7,9–11).

The ideal goals and the tripartite mission of the proposed framework for value-based medical education are to promote health through excellence in education and research and the highest quality of professional healthcare to attain scientific authority, independence and progress. We identified the principal values that support a medical education system built on a strong foundation of values (e.g. belief in God, commitment to justice, moral virtues). Additional values are the embedded procedural qualities of value-based healthcare and value-based medical education (e.g. effectiveness, efficiency, accountability). The final value concepts in our framework fall within the class of implementation values and enable the medical education system to manage future emerging health needs.

This values-based system employing the full potentials of preventive care and people-centred

practice, meets the real needs of people's health through community-based medical education. Using reliable evidence, a value-based framework could align education with community health needs and competency-based medical education to train the most competent health workforce.

Synergetic effects of values

Values within and between different value classes can act to promote one another (2–4). In other words, there are synergies between values. Indeed, without principal values, which are most appreciated by society, it will be significantly more challenging to achieve the ideal outcomes. The procedural class supports mission values; within the procedural value class, accountability, accessibility, transparency and collaboration may have an inherent synergy greater than any synergy demonstrable with other aspects. Other potential synergies are between principal, procedural, implementation and outcome values. Policies aimed at enhancing equity in the health system may simultaneously be the best way of increasing preventive care, community-based medical education and the promotion of population health. There are also potential synergies between mission values and other values. Innovative research can improve evidence-based medical education and evidence-based practice and help the Iranian system to become a scientific leader in academic and community health enterprises.

Health promotion and healthcare quality (outcome values) are dependent on an effective, people-centred, equitable, efficient and people-centred health and medical education system.

How can the value-based framework for health and medical education be applied?

This value-based framework for healthcare and the medical education system was developed to address the complex health challenges and priorities in the medical education system. Our value-based framework organized the values concepts of the health reform policies and provides guidance for developing a value-based medical education that impacts healthcare. Medical schools should prepare their graduates as the future medical workforce by incorporating these values throughout the medical curriculum (34,35).

This comprehensive, value-based framework would facilitate the comparison of a health system's values and the assessment of the value orientations of medical education at the international level.

Conclusion

As the concept of values in health policies grows, a value-based perspective for medical education becomes ever more necessary. Developing a value-based framework of health and medical education policy orientations helps policymakers identify the neglected and overstressed values statements.

Considering that health needs vary from country to country, our study was conducted to create a comprehensive values-based framework for medical education incorporating health priorities in Iran’s upstream policies.

In this innovative study, the value-based framework we have proposed (Figure 1) is the initial step to bringing values into focus for the reform of the medical education system and future orientations. To facilitate value-based medical education, interpreting the value concepts in healthcare and medical education, reinforcing mission orientation, monitoring procedures and implementation activities are essential.

Applying this framework may reveal the challenges in the development and implementation of value-based medical education and thus provide directions for further research. We suggest future studies on values-based curriculum development. Medical educators can broaden this framework by developing modules that focus on specific healthcare needs in different settings.

Although integrating social and cultural values in medical education would be different, fostering fundamental values in the medical curriculum may be a feasible solution towards improving values-based practice. This identification of the value-based themes and this framework may help move the science-dominated medical departments towards a culture supportive of values. We suggest future studies to empower value-based medical education qualifications to help promote value-based healthcare. Further studies are required to critically analyse the different social values in health priority-setting in countries and to examine the effectiveness of these frameworks and their usefulness in a range of settings.

Taking an empowering approach to the health and medical education system, this value-based framework would provide a platform for developing effective strategies and more specific interventions in the medical education system that impact healthcare to link into its various value components. Our findings could form the foundation of a comprehensive programme to improve value-based medical education in similar contexts.

We anticipate this value-based framework will stimulate further debate on the need to transform medical education experiences to align with fundamental values and futuristic research on value-based medical education models that will better prepare doctors for future challenges.

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Cadre conceptuel visant à intégrer les valeurs fondamentales dans le système de santé et d'éducation médicale en République islamique d'Iran

Résumé

Contexte : Une loi de 1985 en République islamique d'Iran a intégré toutes les institutions d'éducation sanitaire dans le ministère de la Santé, établissant ainsi le ministère de la Santé et de l'Enseignement médical dans le but de définir des politiques dans ce domaine.

Objectif : Classer le concept de valeur des politiques qui donnaient la priorité à l'élaboration d'un cadre conceptuel fondé sur la valeur pour les soins de santé et l'enseignement médical en République islamique d'Iran.

Méthodes : Nous avons mené la présente étude qualitative à l'aide d'une analyse critique et thématique du contenu des déclarations fondées sur la valeur, ainsi que des documents stratégiques relatifs à la santé et au développement de l'éducation médicale publiés de 2009 à 2019 en République islamique d'Iran. Au total, 210 documents ont été passés en revue et sept ont fait l'objet d'une analyse critique. Les concepts de valeurs ont été identifiés et codés.

Résultats : Au total, 69 concepts de valeurs ont été classés en 28 sous-thèmes et cinq thèmes principaux : valeurs de mission, valeurs principales, valeurs de procédure, valeurs de mise en œuvre et valeurs de résultats. Nous avons identifié le modèle des valeurs fondamentales pour présenter notre cadre conceptuel.

Conclusion : Ce cadre complet fondé sur des valeurs peut aider à mettre en place une culture de soutien basée sur des valeurs parmi les décideurs, à identifier les problèmes sous-estimés et surestimés, ainsi qu'à renforcer l'intégration des valeurs fondamentales dans l'ensemble du système de santé et d'éducation médicale.

References

1. Segal E.A. Social welfare policy and social programs: a values perspective, 2nd ed. Boston: Cengage Learning; 2009.

2. Fulford KWM, Peile Ed, Carroll H. Essential values-based practice: clinical stories linking science with people. Cambridge: Cambridge University Press; 2012 (doi:10.1017/CBO9781139024488, accessed 14 December 2022).

3. Stewart J. Public policy values. University of New South Wales: Australian Defence Force Academy; 2009 (www.palgrave.com/gp/book/9780230554009, accessed 14 December 2022).

4. Giacomini M, Hurley J, Gold I, Smith P, Abelson J. The policy analysis of 'values talk': lessons from Canadian health reform. Health Policy. 2004;67(1):15–24. doi:10.1016/S0168-8510(03)00100-3

5. Weiss C. (1995). The four" I's" of school reform: how interests, ideology, information, and institution affect teachers and principals. Harvard Educational Review. 65(4),571–93.

6. Porter ME, Teisberg EO. Redefining health care: creating value-based competition on results. Boston: Harvard Business School Press; 2006.

7. Tabatabai S, Simforoosh N. Fundamental values of the healthcare and medical education system: evolution of the Iranian religious progress model. J Relig Health. 2021;60(3):2138–53. doi:10.1007/s10943-020-01118-0

8. Simforoosh N, Ziaee AM, Tabatabai SH. Growth trends in medical specialists' education in Iran; 1979–2013. Arch Iran Med. 2014;17:771–5. doi:0141711/AIM.0011.

9. Nair M, Fellmeth G. Current efforts in medical education to incorporate national health priorities. Med Educ. 2018 Jan;52(1):24–33. doi:10.1111/medu.13395

10. Moriates C. Creating leadership roles for integrating value into academic medical programs. Costs of Care; 2017 (blog post) (http://academicmedicineblog.org/creating-leadership-roles-for-integration, accessed 14 December 2022).

11. Hendriks AM, Jansen MW, Gubbels JS, De Vries NK, Paulussen T, Kremers SP. Proposing a conceptual framework for integrated local public health policy, applied to childhood obesity--the behavior change ball. Implement Sci. 2013 Apr 18;8:46. doi:10.1186/1748-5908-8-46

12. Rashidian A, Arab M, Vaez Mahdavi M, Ashtarian K, Mostafavi H. Which social values are considered in Iranian health system? Arch Iran Med. 2018 May 1;21(5):199–207. PMID:29738263

13. Carnwell R, Daly W. Strategies for the construction of a critical review of the literature. Nurse Educ Pract. 2001; 1(2):57–63. doi:10.1054/nepr.2001.0008

14. Saini M, Shlonsky A. Systematic synthesis of qualitative research. Oxford: Oxford University Press; 2012.

15. Daniels N. Accountability for reasonableness: establishing a fair process for priority setting is easier than agreeing on principles. BMJ. 2000;321(7272):1300–1. doi:10.1136/bmj.321.7272.1300

16. Sapsford R, Jupp V. Data collection and analysis, 2nd ed. London: Sage; 2006.

17. Thomas J, Harden A. Methods for the thematic synthesis of qualitative research in systematic reviews. BMC Med Res Methodol. 2008 Jul 10;8:45. doi:10.1186/1471-2288-8-45

18. Morrow SL. Quality, and trustworthiness in qualitative research in counseling psychology. J Counseling Psychol. 2005;52:250–60. doi:10.1037/0022-0167.52.2.250

19. Wojtczak A. Glossary of medical education terms: part 3. Med Teach. 2002;24(4):450–3. doi:10.1080/0142159021000000861

20. Ruger JP. Ethics of the social determinants of health. Lancet. 2004;364(9439):1092–7. doi:10.1016/S0140-6736(04)17067-0

21. Clark S, Weale A. Social values in health priority setting: a conceptual framework. J Health Organ Manag. 2012;26(3):293–316. doi:10.1108/14777261211238954

22. Morley L, Cashell A. Collaboration in health care. J Med Imaging Radiat Sci. 2017;48(2):207–16. doi:10.1016/j.jmir.2017.02.071.

23. Frank JR, Snell LS, Cate OT, Holmboe ES, Carraccio C, Swing SR, et al. Competency-based medical education: theory to practice. Med Teach. 2010;32(8):638–45. doi:10.3109/0142159X.2010.501190

24. Magzoub ME, Schmidt HG. Taxonomy of community□based medical education. Acad Med. 2000 Jul;75(7):699–707. doi:10.1097/00001888-200007000-00011

25. OCEBM levels of evidence. Oxford: Centre for Evidence-based Medicine; 2009 (https://www.cebm.ox.ac.uk/resources/levels-of-evidence/ocebm-levels-of-evidence, accessed 14 December 2022).

26. Eyler AA, Brownson RC. The power of policy to improve health. In: Eyler AA, ed. Prevention, policy, and public health. Oxford: Oxford University Press; 2016.

27. Patient safety curriculum guide: multi-professional edition. Geneva: World Health Organization; 2011 (https://www.who.int/publications/i/item/9789241501958, accessed 14 December 2022).

28. Crease RP. The rise and fall of scientific authority — and how to bring it back. Nature. 2019;567(7748):309–10. doi:10.1038/d41586-019-00872-w

29. Transforming our world: the 2030 agenda for sustainable development. New York: United Nations Department of Economic and Social Affairs; 2015 (A/RES/70/1, https://sdgs.un.org/documents/ares701-transforming-our-world-2030-agen-22298, accessed 14 December 2022).

30. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. Ann Fam Med. 2014;12(6):573–6. doi:10.1370/afm.1713. PMID:25384822

31. Korenstein D. Charting the route to high value care: the role of medical education. JAMA. 2015;314(22):2359–61. doi:10.1001/jama.2015.15406

32. Fatemitabar SA. The theory of derivation of ethics from religion. J Med Ethics Hist Med. 2008;1(2):7–14.

33. Cayea D, Tartaglia K, Pahwa A, Harrell H, Shaheen A, Lang VJ. Current and optimal training in high-value care in the internal medicine clerkship: A national curricular needs assessment. Acad Med. 2018;93:1511–6. doi:10.1097/ACM.0000000000002192

34. Hackbarth G, Boccuti C. Transforming graduate medical education to improve health care value. N Engl J Med. 2011;364:693–5. doi: 10.1056/NEJMp1012691

35. Gonzalo JD, Dekhtyar M, Hawkins RE, Wolpaw DR. How can medical students add value? Identifying roles, barriers, and strategies to advance the value of undergraduate medical education to patient care and the health system. Acad Med. 2017 Sep;92(9):129–301. doi:10.1097/ACM.0000000000001662

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