



Necessity of Designing a National Model of Foresight-Based Policy-Making in Medical Education

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Currently, trends affecting medical education are changing, and new domains of medical sciences and technological innovations, as well as educational technologies, are expanding and growing. The major players in these sectors are also changing, causing an evolution of the principles and rules that govern decision-making related to medical education. Since the perspective of medical education in different specialties is evolving (1), it is necessary to engage in foresight-based policy-making and scenario-writing.

Policy-making considers the future only when policies must be based on future scenarios and create justified alternatives to probable future challenges. Therefore, futurologists attempt to imagine possible future spaces and understand and analyze the changing trends. The most important part of the process of foresight is defining the objective, as it determines the nature of the relationship with decision-making (2, 3).

Possible objectives of foresight are:

1. Determining a roadmap: the general guideline for science policy-making and preparation of programs of different futures for medical education.
2. Establishing priorities: the major objective and motivation in most foresight-based programs in any country are related to resource limitation. Therefore, one of the objectives expected from futurologists in the healthcare system and from medical education researchers is determining the priorities of medical education research based on the priorities of the healthcare system.
3. Prognosis: identifying new developments and their major effects on the preparation of future policies regarding higher education in medicine.
4. Determining probable challenges and risks and finding solutions for them.
5. Consensus: encouraging scholars, investment institutions, and research users to consider opportunities and needs, and achieve agreement between policy-makers of higher education in medicine toward a mutual objective.

6. Attracting support: encouraging policy-making that supports the stakeholders of the national medical education system.

7. Creating a communication network: expanding the communication between Iranian scientific communities (2, 3).

The next part of the process of foresight is the creation of scenarios. Scenarios are tools used to prioritize the viewpoints of experts regarding future probabilities, each with its unique combination of key drivers. Scenarios also help identify potential yet unexpected challenges and opportunities. They are used to create a space of possibilities in which the efficiency of policies is tested. Scenarios are not just the prediction of a specific future, but the description of all probabilities. In fact, scenarios are an image of a possible and probable future (2, 4).

In the realm of medical education, foresight- and scenario-based policy-making necessitate a review of past challenges and achievements in medical education development, and the employment of a holistic model based on social values in order to solve the country's problems (4, 5). Such a model should include local and national requirements, cultural realities, and religious beliefs in determining future needs and demands for healthcare and medical education services.

In order to solve problems, policy-making in medical education must have the following characteristics:

- It must have a holistic and systemic view of the problem and consider all economic, social, political, environmental, and cultural trends.
- It must view the depth of the problem. In order to consider value-based principles and foundations, policy-makers must first identify the ontological and epistemological view of the problem, then delineate future horizons, and finally engage in planning and policy-making.
- It must have a long-term view of the problem. The experience and knowledge of experts assure the quality of understanding and solving the problem.

Suggestions for designing the national model of foresight-based policy-making in medical education:

1. Forming probable future spaces in terms of future scenarios based on the opinions of a panel of experts.
2. Analyzing the reciprocal effects in each layer of decision-making in order to determine uncertainties.
- 3 Expanding and developing future scenarios.
4. Considering all probable scenario spaces based on the opinions of experts.
5. Removing unbelievable scenarios.
6. Focusing on believable scenarios.
7. Decreasing the number of scenarios.
8. Considering wildcards.
9. Preparing a collection of policies in the domain of medical education.
10. Evaluating these policies in the face of different scenarios.
11. Prioritizing the policies.

In these steps, various future possibilities are evaluated by medical education experts and stakeholders, promoting the efficiency of decisions and analysis of policies

regarding the future of medical education in Iran.

Supplementary Material

Supplementary material(s) is available [here](#) [To read supplementary materials, please refer to the journal website and open PDF/HTML].

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