Original Article

The Medical School Faculty Members'Opinions Examination on Whether the Curriculum Material Corresponds to the Anticipated Positions of General Practitioners in Iran

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Abstract

Background & Objective: The complexities of clinical medicine, the advancement of knowledge and experience in medical education, advances in information technology, changes in the delivery of health services, Both of these considerations must be addressed, as well as the need to adjust the curriculum in order to meet the expected capabilities of general practitioners.The aim of this study was to look into the quality of basic and clinical curriculum education, as well as the compatibility of the new curriculum's content with the general practitioner's expected roles.

Materials & Methods: Qualitative review (focused community discussion) was performed in 2018 and 2019. In-depth group interviews with medical education experts and selected talented students were conducted to gather data, and classes and themes were extracted using the Granheim and Lundman content analysis method.

Results: Based on the similarity and appropriateness of the results, two groups of 15 codes were identified in the study: adjusting the length of basic sciences and clinical introductory courses, and changing the educational quality of basic sciences and clinical introductionsand three categories in the content of clinical education instruction, namely enriching clinical goals With 12 codes, general medicine, content enhancement and organization, and clinical content implementation improvement were established.

Conclusion: Reviewing basic sciences courses with a longitudinal incorporation approach to clinical content, paying attention to the fundamentals of physiopathological reasoning of diseases in clinical planning, and designing an internship strategy focused on clinical reasoningand attending to skills training during the internship course can be beneficial Medical students' educational instruments should be suitable for the anticipated plans and tasks.

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Introduction

Educational preparation, also known as a program, is one of the most important aspects of education because it is crucial to the effective training of human capital. in order to identify educational requirements, provision of specific educational goals,

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identification and organizing training content, selection of training methods and provision of materials required to assess education is a process that requires action and action (1).

In the education and training of human resources required by the health system, a comprehensive, comprehensive curriculum that meets the real needs has a pivotal role, and for this purpose, it is necessary to develop, revise and modify the curriculum in line with the current needs of society. In the training of human resources in the field of health - including general practitioners who have an important role in maintaining and promoting the health of society - the existence of a comprehensive curriculum that can respond to the needs of current and changing society and It is one of the most necessary and important tasks of the medical education system to guarantee the training of skilled and capable human resources in the health system (2).

The complexities of clinical medicine and the diversity of medical care, the development of knowledge and experience in medical education, the advancement of information technology, changes in the provision of health services, including the establishment of family physician programs, changes in disease burden, growth in technology use Diagnostic and therapeutic approaches in the field of medical care, as well as the dominance of evidence-based medical model in the clinic, necessitates the application of appropriate changes in the curriculum in order to achieve the expected competencies of general practitioners (3, 4). In fact, the general medicine curriculum should be designed in such a way that in addition to the growth and development of students' theoretical knowledge, it provides a basis for their mastery and clinical skills (5). Since the purpose of clinical education is to provide opportunities for students to link theoretical information with practical facts, improving its quality can lead to adequate training of students in various clinical areas (6, 7, 8). Despite the foregoing, the evidence suggests that the implementation of effective education indicators in the general medicine curriculum is rarely considered and that medical graduates do not evaluate their clinical skills and practical abilities to the desired extent.

Despite the value of clinical education, there are a few studies that show students' dissatisfaction or relative satisfaction with the standard of clinical education (9). According to the findings of the Khajeh Azad report, students have a low opinion of the quality of the general medicine curriculum based on national standards (10). Another study from Ardabil University of Medical Sciences found that the aims and content of medical education programs do not fulfill the needs of students in this area and that many aspects of the curriculum need to be changed fundamentally (11). Students at the University of Sarajevo in Bosnia and Herzegovina shared frustration with the difficulties in teaching clinical skills in a study conducted there (12). Medical students at Shahrekord University of Medical Sciences rated the quantity and standard of clinical education as relatively desirable and undesirable in another report and, in their opinion, clinical education in all aspects should be reviewed (13). On the other hand, some review articles suggest that, despite having adequate theoretical knowledge, medical graduates lack the requisite skills and productivity in clinical environments, as well as a lack of problem-solving abilities (14).

After more than three decades of development and approval of the professional medical doctorate program in 1985, the Ministry of Health, Treatment, and Medical Education published the "National General Medicine Curriculum" in 1396 as a written program tailored to evolving needs. The field of medicine, the context of medical schools, developments in medical knowledge in the country and around the world, and medical schools' experiences in the field of general medical education and quality improvement interventions in schools at four levels of basic sciences, clinical preparation, internship have checked and informed the country's

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medical universities (4). Given the variety and evolution of the educational goals listed in this program, the current qualitative research aims to examine the content of basic and clinical curriculum education by medical education experts and selected professors in a systematic and line-by-line manner, aligning the content of the new curriculum with the educational goals mentioned in the program. Examine the GP's intended responsibilities.

Materials and Method

The current thesis is content analysis and qualitative research. Ten experts in the field of medical education and faculty members from the medical school, in collaboration with the advisory committees of the Center for the Study and Development of Medical Education, and also selected talented students who are purposefully selected, are examples of research in each focus group discussion session. They were kind. The Center for the Study and Development of University Medical Education provided the research climate. The purpose of the study was first explained to the participants, and then the group leader and meeting facilitator's questions were answered in a peaceful, low-traffic location (think tank of the University Studies Center. To gather data, the researchers conducted two in-depth group interviews using Focus Group Discussion (FGD). They then extracted the categories and themes that reflected the faculty members' interpretation of the general medicine curriculum using the traditional approach of content analysis (Conventional Content Analysis) (15). Interviews lasted 100 minutes for each FGD, and they were performed in a comfortable and acceptable meeting venue. For the interviews, semi-structured questions were used. The questions were created by the clinical faculty members of the Center for the Study and Development of Medical Education, and the interview form was then provided to three education experts for their input and approval before being implemented. The following were among the first FGD questions:

- - What is your opinion about the length of basic science courses and clinical introductions?

- Is the material provided in the basic sciences course needed for clinical graduate training?

Finally, what recommendations do you have for the educational quality of these two courses?

The following were also included in the second round of FGD questions:

- Is the length of internships and internships, as well as the length of each department's training course, appropriate?

- Is the existing curriculum specific about the minimum necessary clinical functional skills and how to learn them?

- Is the new curriculum's clinical education material geared to graduates' roles as general practitioners?

- To what degree has the current curriculum's clinical education material been designed to improve medical students' clinical thinking skills?

The group leader asked the majority of the follow-up and exploratory questions based on the data given by the participants during the group interview, in order to explain the definition and deepen the interview process.

Membership in the faculty of Mazandaran University of Medical Sciences' medical school, an interest in the quality development of medical education, membership in the study center's advisory committees, as well as experience in implementing general medicine curriculum and talented students are all required. The cancellation of the interview was one of the exclusion conditions.

To analyze the data, summaries were written right after each interview, while listening to the recorded audio content and meeting facilitator notes. The material (16) was analyzed using the Granheim and Lundman qualitative method, which included the following:

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- To obtain a complete understanding of the interviews, the interviewer writes them down and studies them many times. - All interviews are analyzed as a single unit. The notes to be evaluated and coded are referred to as the research unit. - A semantic unit is made up of paragraphs, sentences, or phrases. A semantic unit is a set of words and sentences that are linked in content and are summarized and grouped together according to their content and meanings. The codes arrive at and call abstract and conceptualization. Finally, the material concealed in the data is incorporated as the study's theme by contrasting the groups to one another and carefully and deeply reflecting on them.

Guba and Lincoln's suggested parameters were used to demonstrate the study's precision and robustness (17). In this way, the researcher attempted to improve the research's credibility (credibility) through long-term involvement, appropriate participation and contact with the participants, the collection of reliable data, and the participants' confirmation of the data. In addition, step-by-step repetition and data collection and analysis were performed, with expert evaluation to improve data reliability (Dependability). The approval of faculty members and their supplementary opinions were used to increase the data conformability criterion (Conformability). The transferability of the analysis was also undertaken in an effort to include a detailed overview of the research report so that it could be evaluated and applied to other fields. It should be noted that the participants' quotes were interpreted in the same manner as previously stated.

In order to adhere to ethical considerations and protect the rights of the participants, the researchers assured them that the interview material would be kept completely confidential and without naming individuals by introducing themselves to them, explaining the research objectives, and obtaining informed consent. The interview is being taped. The Vice-Chancellor for Research of Mazandaran University of Medical Sciences gave his approval to this report, which followed the IR.MAZUMS code of ethics. REC.1398.5855, REC.1398.5855, REC.1398.5855,

Result

After several stages of updating and summarizing the codes based on similarity and appropriateness in the content of basic science education and clinical introductions of the two-level program, the original codes were derived based on the interviews with the participants. Changing the educational content of the basic sciences and clinical introductions with 15 codes (Table 1) and in the context of the clinical education of the three-level curriculum; adjusting the duration of the basic sciences and clinical introductory courses12 codes were assigned to enriching the clinical objectives of the general medicine course, improving its content and organization, and improving clinical content implementation (Table 2). The key findings revealed that the duration of these two periods' courses should be changed based on general medicine's future position. In addition, basic science content should be updated to reflect the position that graduates will play in the future and take a clinical approach. In addition, in the assistantship classes, the basic contents of the basic sciences should be presented. Another major finding was that clinical training should come from a series of books on physiopathological approaches to diseases and that clinical reasoning should be seriously regarded as a central component in the role of the general practitioner as a decision-maker. In addition, the new curriculum's clinical content should be relevant to society's real needs, and the lesson plan for implementing the new curriculum should be focused on clinical reasoning.

Table 1: Main classes and extracted codes regarding the content of basic science education and clinical introductions of the curriculum

Main category	Codes
Adjusting the length of the basic sciences course and clinical introductions	• The duration of these two courses should be adjusted to two years according to the educational content. • The length of the course in these two periods should be adjusted based on the role that is intended for general medicine in the future. • The length of the course should be adjusted according to the available resources, both human and non-human.
Changing the educational content of basic sciences and clinical introductions	• Basic science content has a clinical approach. • The content of the basic sciences should be changed according to the role that the graduate will play in the future. • Reduce the volume of basic science content for the purpose of training General practitioners. • Define the minimum requirements for basic sciences. • Optional courses should be considered in the basic sciences. • Basic science teachers should have a medical education. • Basic science course resources should be provided in smaller volumes. • The order of presenting courses in basic sciences should change. • Basic materials of basic sciences should be offered in residency courses. • Sources of clinical preparation should be selected from a series of books on physiopathological approaches to diseases. • The content of clinical preparation courses is not appropriate and needs to be reviewed • Strengthen the physiopathological reasoning of diseases to be seen in the new curriculum.

Table 2: Main classes and extracted codes regarding the content of clinical education curriculum

Main category	Codes
Enriching the objectives of clinical education in general medicine	• Medical expert should be precisely defined in the general medicine curriculum. • The minimum clinical skills expected of the physician as a General Practitioner should be stated in the curriculum. • Clinical reasoning as a central component in the role of the general practitioner as a decision maker should be seriously considered • The clinical content of the curriculum will cover the competencies of the general practitioner as the role of the physician in promoting community health. • The clinical content of the new curriculum should be tailored to the real needs of the community.

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Continue of Table 2: Main classes and extracted codes regarding the content of clinical education curriculum

Improving content and organization	• In the curriculum, in addition to topics, approaches and important complaints should be stated. • Weigh the clinical content according to the degree (internship and Clerkships). • The content of the curriculum should be considered separately for internships and Clerkships. • Some of the content provided in the internship curriculum should be Nice and Better and a must for the Clerkships.
Improve the implementation of clinical content	• Determine the expected number of procedures in the curriculum. • The form of content presentation should have a practical approach. • In implementing the new curriculum, the lesson plan should be based on clinical reasoning.

Discussion

This qualitative study was conducted at Mazandaran University of Medical Sciences with the aim of reviewing the opinions of medical education experts on the educational content of basic and clinical sciences in the current general medicine curriculum and its compatibility with the tasks required of a general practitioner. In explaining the educational content of basic medical sciences and its relevance to adjusting the length of the course and adjusting the educational content of basic sciences and clinical introductions were defined as two key categories in explaining the educational content of basic medical sciences and its relevance to the intended tasks of general medicine. Also in explaining the scientificcontent material of the instructional curriculum with the anticipateddutiesof drugs in 3 categories; Enriching the scientificdesires of the overallmedication course, enhancing its content material and organization, and enhancing the implementation of scientificcontent materialhad been identified.The findings from the segment on updating basic science educational content suggest that basic science content should take a clinical approach. According to Adibi et al., students in the basic sciences can pay more attention to the relevance of these courses if they are familiar with the practical application of these courses (18). Furthermore, the findings of this study agree with those of Vahidshahi et al. They demonstrated in their research that providing basic science courses to students without linking them to clinical topics does not result in deep learning (19). Dal et al. also reported that integrating basic and clinical sciences leads to improved material preservation and the ability to apply basic science concepts to particular clinical fields (20). Another finding of this study is that the content of basic sciences should be adjusted in proportion to the potential position of graduates. In order to understand this finding, it is necessary to pay attention to physicians' future professional needs while designing an appropriate curriculum and making improvements to basic science educational material (21). Another finding of this study was that the amount of educational material and length of the basic sciences course for training general practitioners should be decreased, and that its sources should be chosen from a clinical perspective, and that the content should be basic with more specific information given (22). In this regard, Avijegan et al., in describing the experiences of successful faculty members in teaching basic medical sciences, stated that reducing the volume of content, teaching useful and practical materials, and not just teaching basic sciences, can be effective in ensuring that medical students learn their courses

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successfully(23). According to another report, the high amount of course material makes it difficult for students to think, and Dubono believes that the density of course content deprives learners of the ability to think (24).

Harvard faculty members agreed that giving medical students clinical contexts in which to study the fundamental sciences would enhance their clinical results (25). Participants also agreed that the basic sciences minimum standards should be rewritten, that certain courses at this stage should be optional, and that the content of clinical introductory courses should be checked and cited in a series of books. Diseases should be chosen using a physiopathological approach. In this regard, the findings of the Khazaei study revealed that medical students found the presentation of clinical topics relevant to each physiology discussion under the title of an optional clinical physiology course, which improved students' motivation to learn (26). In terms of the new curriculum's clinical material, one of the most relevant classes discovered in this study is enriching clinical education goals with the approach of training medical graduates to play their role in society as clinical practitioners and clinical decision-maker. In order to meet the needs of society and encourage community health in the curriculum, it is important to explicitly state the minimum clinical skills required of physicians on the one hand, and clinical thinking skills on the other hand, when redefining the Medical expert. In a letter to the editor of one of the prestigious medical education journals, one of the writers of the current article identified four main competencies of a clinical practitioner to support community health, the most important of which is the benefit of clinical reasoning (27). Th is is also supported by a study of the qualifications of general medicine doctoral graduates. The use of decision-making and reasoning skills, as well as six other competencies, including health promotion, is specifically emphasized in this text, which was conveyed to universities by the Supreme Council for Medical Sciences Planning in 2015. (28). It is obvious that using a clinical thinking method in general medical education would enhance the application of clinical curriculum education because it is realistic. The argument is that, in addition to the requirement for clinical reasoning as a semi-unit course in the clinical introductory course, the clinical reasoning approach is emphasized in the current general medicine curriculum rather than the clinical material (4). As a result, as in the current report, the experts stressed the importance of writing a clinical lesson plan based on clinical reasoning principles in order to optimally apply the clinical content of the new curriculum. . The need to revise the curriculum in order to meet the specific needs of society or to follow a socially sensitive approach, is one of the points emphasized in the current research. The Case's Inception and Karimi The structural equations model was used to investigate the needs of general practitioners for social transparency in a study conducted in the Journal of Educational Development in Medical Sciences.

Conclusion

The findings of this study support the use of the CARE model's various dimensions as a relevant approach in general medical education and in the direction of social accountability (29). Yamani and Fakhari investigated the obstacles and methods of social responsibility in the curriculum in medical education and found that, while many recommendations have been made to assist universities in responding to the curriculum, they are often the product of individual researcher experiences. Their effectiveness in various educational systems needs to be studied further. Furthermore, according to the researchers of this report, steering educational research toward the advancement of medical education transparency has been suggested as a requirement (30). Based on the results of the report, it can be inferred that basic science courses should be revised with a longitudinal

incorporation approach to clinical content, with more emphasis on the fundamentals of physiopathological reasoning of diseases in clinical planning, developing a lesson plan to teach topics focused on clinical reasoning Clinically in the internship, and eventually, a focus on skills training in the internship, will pave the way for the use of an instructional plan to prepare medical students for the positions and tasks that will be required of them in the future. This research has been notable for its activeness, versatility, and easy access to information, but its drawbacks include a limited capacity to generalize the results to a wider population, as well as the complexity of data analysis.

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