Original Article

Determining the Experiences of Pathology Students at Entrepreneurship Education Workshops Curriculum in Medical Sciences: A Qualitative Study

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Abstract

Background & Objective: Today, a large part of entrepreneurship education is provided to students in medical institutions in the form of a series of workshops. This study aimed to explain the experiences of students of the pathology at the curriculum of entrepreneurship education workshops in the field of medical sciences.

Materials & Methods: This was a qualitative study conducted with a directed content analysis method. Content analysis was carried out based on four components of Ralph Tyler's model. Subjects were selected from medical students of the University of Tehran attending entrepreneurship education workshops using snowball sampling. Data saturation was reached after semi-structured interviews with 14 individuals. All interviews were transcribed verbatim and manually extracted codes were analyzed.

Results: In this study, the issues of entrepreneurship education workshops were classified into 18 categories presented in the form of four main components of objectives, content, teaching method, and evaluation in the curriculum.

Conclusion: Those involved in medical sciences, as well as those in charge of holding entrepreneurship education workshops, should pay more attention to the curriculum of entrepreneurship education workshops according to the identified pathology in order to provide the necessary space for entrepreneurship training.

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Introduction

In line with changes in other higher education institutions, medical universities must shift from education-centered organizations to entrepreneurship institutions (1). Meanwhile, education of entrepreneurship plays a considerable role in laying the foundation for entrepreneurial medical universities. Today, studies show that entrepreneurship can be developed through education (2-4). Conceptually, entrepreneurship education is a systematic and goal-oriented process used to train non-entrepreneurial but talented individuals creatively (5). In fact, entrepreneurship education is defined as the content, methods, and activities that grow and develop motivation, competency, and experience to make the establishment, management, and participation in the value-added process possible (6). In addition to increasing the participation of students in startups, entrepreneurship education increases human and financial income (7), which will be associated with decreased poverty and other social damages (8-10). Considering the importance of entrepreneurship education, advanced countries have taken fundamental steps toward supporting entrepreneurial activities in academic courses to teach entrepreneurship to students. In addition, special attention has been paid to entrepreneurship and self-

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employment in the curricula of various fields in the form of books or educational courses (11).

In Iran, the ministry of health and medical education emphasized the implementation of the "KARAD Plan" in medical universities of the country in 2005 and education of entrepreneurship in these centers. In addition, the related Council of Ministers considered the existence of entrepreneurship offices in the University of Medical Sciences by approving and emphasizing the implementation of the enactment of t/50876 on November 16, 2005 (12). In this respect, while several educational courses and workshops on the education of entrepreneurship to medical students have been held, they may not be that effective, and students might fail to achieve the necessary skills for creating entrepreneurship in their field of study due to the novelty of the courses, lack of monitoring of the content and curriculum of entrepreneurship education courses and designing courses based on possible biases of their holders. This highlights the importance of finding the defects of the curriculum of these workshops for designing new entrepreneurship education courses. Experts have mentioned various elements in detecting issues related to the curriculum. Some domestic and international studies have been conducted on the topic covered in the present research, as shown below:

Shoja-ghale-dokhtar et al. (2014) performed a research on medical students of Mashhad, Iran, concluding that strengthening entrepreneurship capabilities in students based on training programs are emphasized as a means to achieve economic prosperity (13). Aghajani et al. evaluated entrepreneurial curriculum effectiveness of quick return plans on Mazandaran entrepreneur women. In the end, entrepreneurial curriculums' effectiveness and all sub-evaluation dimensions (motivations provoking, features nurturing, and skills training) were reported to be unfavorable (14). In another research, Amiresmaili (2018) assessed Kerman university of medical sciences entrepreneurship based on characteristics of entrepreneurial universities, reporting that the information obtained in the areas of administrative bureaucracy, the status of graduates, the level of people's ability, the status of education and research in the field of study, as well as the relationship with industry and knowledge-based companies required more effort (15). Assessing the effectiveness of in-service training courses in Kermanshah University of Medical Sciences in 2017 based on the CIPP model, Tarin et al. marked that the foundation and process were significantly far from favorable status and lacked the necessary effectiveness. However, the input and output dimension had the required efficiency in this regard (16). Pourabedi et al. (2016) assessed the pathology of entrepreneurship education courses in Iran in 2016, reporting managerial/executive, social, cultural, structural, legal, and economic factors as those damaging the entrepreneurship sector (17).

Soltani Arabshahi et al. (2004) aimed to determine the effect of teaching skills workshops on the quality of residents' teaching, concluding that training programs and teaching skills courses for residents should be performed as formal instructional residency programs (18). Farnia et al. (2012) examined the effectiveness of educational courses presented for the agricultural and non-agricultural members of cooperatives in the East Azerbaijan Province by the use of the Kirkpatrick model. In the end, it was concluded that the courses were more effective in transferring the concepts rather than practices, which might be due to the emphasis on the theoretical aspect by the educators. Another obstacle can be the lack of motivation among learners for obtaining new knowledge and change (19). In a research entitled "gender, entrepreneurial self–efficacy, and entrepreneurial career intentions: implications for entrepreneurship education, Wilson et al. (2007) revealed the important role of entrepreneurship education in increasing the level of self-efficacy and tendency to start economic activity (20). Souitaris et al. (2007) assessed entrepreneurship

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programs' ability to raise entrepreneurial intention of science and engineering students in universities of London and France, reporting a difference in the entrepreneurial norms and entrepreneurial intentions at the beginning and end of the curriculum (21). Postigo et al. (2002) conducted a study to evaluate entrepreneurship education in the higher education system of Argentina. Based on students' opinions, creativity and innovation education courses were the most important courses for entrepreneurship education (22).

While several workshops on entrepreneurship education have been attended by medical students in the past few years, some of the workshops seem to not be able to improve the entrepreneurial skills of participants. Therefore, the pathology of entrepreneurship courses should be assessed. In this regard, Tyler is regarded as one of the most influential educators and curriculum theorists, who basically considers curriculum as a technical activity. Tyler based his justification for the model around four central questions:

1. What educational objectives should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these objectives?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these objectives are being attained? (23)
5. With this background in mind, the present study aimed to determine participants' experience of courses curricula pathology in entrepreneurship education workshops at Tehran University of Medical Sciences in 2018-2019 based on the components of Ralph Tyler's model (educational objectives, content, teaching strategies, and educational assessment).

Materials and Methods

This was a qualitative research conducted with a directed content analysis method, which is a type of technique used when an existing theory or previous research on a phenomenon is either incomplete or would be more useful when further explained (24). In this study, the components were classified based on Ralph Tyler's model (1949) (educational objectives, content, teaching strategies, and educational assessment) (23). The statistical population included students of Tehran University of Medical Sciences who had a history of attending entrepreneurship education workshops in the past three years. Subjects were selected by snowball sampling during 2018-2019 by emphasizing maximum diversity in a purposeful manner. Data saturation was achieved after interviews with 14 individuals (Table 1). Notably, data collection was carried out using semi-structured interviews with follow-up questions. Sampling and interviews were started in August 2018; first, informed consent was obtained from the interviewees and they were ensured of the confidentiality terms regarding their personal information. In addition, research objectives were explained prior to the study. Interviews were initiated following receiving oral consent, and each interview lasted 40-60 minutes. The interviews were recorded with the agreement of the participants and they were asked to call in case of remembering an important issue after the interview. The data collection process was terminated following achieving theoretical saturation. In addition, data were extracted manually, and data analysis was analogically consistent with the directed content analysis method. It is notable that in the directed content analysis method, interviews are coded based on the categories existing in studies and theories, and a new category is considered in case of lack of coding in a category (25). The interviews were transcribed verbatim, and the entire secondary themes were extracted after studying and comparing the written content. Afterwards, the themes were classified into theoretical categories based on their similarities following comparing and determining their differences. In total, the interviews included four main questions designed based on the four

components of Tyler's model. Notably, the research objectives were explained to the participants before asking the questions, which included:

1. What is your opinion about the objectives of entrepreneurship education workshops?
2. What is your opinion about the content of entrepreneurship education workshops?
3. What are the methods used to teach entrepreneurship in these workshops?
4. What are the evaluation methods used in entrepreneurship education workshops?
6. Follow-up questions were asked during the interviews to present more details about the subject.

In this study, the Rigor validation method was applied to determine the validity and reliability of the data (26). To this end, the following activities were carried out: explaining the reason for conducting research by reviewing the literature and research background on the subject, expressing research questions, accuracy in coding and classifying data, member control, comparing research findings with a research background, and paralleling information (Table 2). A cooperative researcher confirmed the extracted codes by coding the data using a qualitative research approach after the primary implementation of the data. The coding was confirmed after applying the opinions of this researcher. In addition, the internal consistency of the data was confirmed by an external observer who was familiar with qualitative research and data analysis methods. All data analysis processes and stages, as well as their internal consistency, were analyzed and confirmed (Diagram 1).

Table 1: Demographic Characteristics of Interview Participants

Row	Code	Gender	field	Teaching methods in workshops
1	Student Code 1	Male	medical	A combination of lecture method, group discussion and demonstration method
2	Student Code 2	Male	medical	A combination of lecture method, group discussion and demonstration method
3	Student Code 3	Female	Physiotherapy	A combination of lecture method, grouping, group discussion and demonstration method
4	Student Code 4	Male	Nursing	A combination of lecture method, group discussion and demonstration method
5	Student Code 5	Female	Optometry	A combination of lecture method, grouping, group discussion and demonstration method
6	Student Code 6	Male	Anesthesia	A combination of lecture method, group discussion and demonstration method
7	Student Code 7	Female	Nursing	A combination of lecture method, group discussion and demonstration method
8	Student Code 8	Female	medical	A combination of lecture method, group discussion and demonstration method
9	Student Code 9	Male	Pharmacology	A combination of lecture method, group discussion and demonstration method
10	Student Code 10	Female	Midwifery	A combination of lecture method, grouping, group discussion and demonstration method
11	Student Code 11	Female	Nursing	A combination of lecture method, group discussion and demonstration method
12	Student Code 12	Male	Nursing	A combination of lecture method, grouping, group discussion and demonstration method
13	Student Code 13	Male	Laboratory sciences	A combination of lecture method, grouping, group discussion and demonstration method
14	Student Code 14	Male	Laboratory sciences	A combination of lecture method, group discussion and demonstration method

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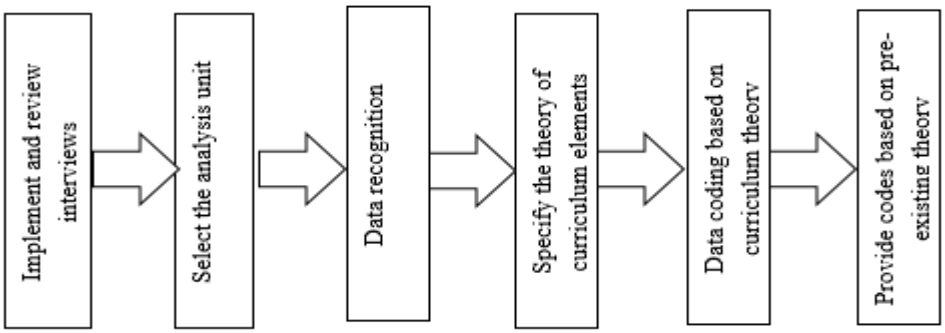


Diagram 1: Graphical model of data analysis process

Results

In this study, 121 open codes were extracted from the participants' experiences of curriculum pathology (objectives, content, teaching method, and evaluation) of entrepreneurship education workshops in medical science. However, 18 codes were created after the integration of repetitive codes and elimination of irrelevant ones. The codes were classified into four categories based on the four components of Tyler's model (1949) (objectives, content, teaching method, and evaluation). The categories are presented below:

Main Category 1: Component of Educational Objectives

According to the results, the component of objectives of curriculum referred to mismatch of objectives with competency development, lack of tangible objectives, superficial objectives for evaluation process, mismatch of objectives with the real needs of the market, and mismatch of objectives with the needs of learners.

Secondary Category 1: Mismatch of Objectives with Competency Development

According to some of the interviewees, one of the problems of the curriculum of entrepreneurship education workshops was the lack of emphasis of objectives on the development of competency in the participants. For instance, participant 3 expressed: "…the workshop mainly emphasizes rote memorization and had no specific impact on my ability and skills…"

According to participant 12: "… I should be equipped with the same instruments used by entrepreneurs in the field of entrepreneurship but the objectives of the workshop did not make any changes in this area."

Interviewee 1 mentioned: "…these workshops should mainly focus on developing talents that could be used by students such as myself."

Secondary Category 2: Lack of Tangible Objectives

Some of the interviewees referred to the lack of tangible objectives of the curriculum. For instance, interviewee 7 stated: "…the workshop's objectives are mainly related to the generalities of the field and the goal of the workshop is not clear. I do not know how to take steps toward achieving the goals of the workshop and have no idea what will be achieved in the end."

Participant 2 believed: "…emphasis on several general goals at the beginning of the workshop made me confused. If the goal of the workshop is to increase the spirit of entrepreneurship in the attendees, the objectives must be explained separately and in detail so that people like me would understand the workshop's goals…"

Secondary Category 3: Superficial Objectives for Evaluation Process

The superficial objectives of the evaluation process were pointed out by some of the participants. For instance, interviewee 8 mentioned: "…these objectives are only beneficial for exam taking. It is

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very superficial to only assess the content memorized by students…"

Participant 14 believed: "…the objectives were extremely simple in all of the education courses and their only assessment technique was to take an exam at the end of the semester…"

Secondary Category 4: Mismatch of Objectives with the Real Needs of the Market

Some of the participants mentioned the mismatch of objectives with the actual needs of the market. In this regard, one of the interviewees expressed: "…the goals and topics listed at the beginning do not seem very up-to-date. In fact, they are outdated and have little place in our field for entering the market…"

Interviewee 13 mentioned: "…what we learn from the workshop, or rather memorize, has nothing to do with the real world, and the workshop goals are not related to themarket and the basic needs of the day…"

Secondary Category 5: Mismatch of Objectives with the Needs of Learners

Some of the interviewees emphasized the mismatch of objectives with the needs of learners. For instance, subject 1 asserted: "…before attending the workshop, at first I thought that I would learn a lot of things that I need after finishing the workshop. Unfortunately, our workshop only offered things to memorize, which could be found on the Internet…".

According to participant 9: "… the main purpose of the workshop did not match what I had in mind. This workshop did not focus on the attendee's needs and what could be learned to be truly entrepreneurial. The main purpose of this workshop did not match my needs…"

Main Category 2: Component of Content

According to the results obtained from the interviews regarding the pathology of component of content in the framework of entrepreneurship education curriculum, we identified the factors of lack of content usefulness, incompatibility of content with its use in the real world, lack of attention of content to professional growth and development, lack of content attractiveness and mismatch of content and time.

Secondary Category 1: Lack of Content Usefulness

In the pathology of the curriculum of entrepreneurship education workshops, some of the interviewees pointed out a lack of content usefulness. For instance, subject 1 expressed: "…the workshop is only theoretical and has no practical use and barely covers entrepreneurship topics…"

Participant 4 marked: "…the nature of the workshop is only theoretical and not entrepreneurial. The main problem is to attain entrepreneurial skills."

Participant 6 mentioned: "the content in the workshop develops only theoretical foundations and emphasizes research ideas rather than entrepreneurial ideas. Now, it sometimes defines the fields of work, which is different from entrepreneurship…"

Secondary Content 2: Incompatibility of Content with its Use in the Real World

Some of the interviewees referred to the content's incompatibility with the real world. For instance, interviewee 10 asserted: "… the content of the workshop was all outdated and did match the needs of the country at all and were only translated from other countries despite the differences between our culture and the culture of those countries…"

Subject 6 mentioned: "…the content of entrepreneurship education workshops must show external activities in a way that we can be entrepreneurial, which is not the case because the content is not at all relevant to real needs and was a collection of theoretical materials..."

Secondary Category 3: Lack of Attention of Content to Professional Growth and Development

Some of the interviewees pointed out a lack of attention of the content to the professional development of students. In this regard, participant 8 expressed: "…the content does not refer to entrepreneurship and seeks to theorize and demean entrepreneurship because it leaves no room for

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practical work, or in other words, no opportunity to express students' abilities…"

Participant 10 stated: "…the content of the workshops should provide growth and development of entrepreneurship in the form of a series of tangible abilities and activities for students before entrepreneurship appears in their field of study so that students would feel that they have gained something…"

Participant 2 affirmed: "…the topics that we are taught in the workshop only remain in our minds for testing. If these topics are useful, they should create capabilities in us…"

Secondary Category 4: Lack of Content Attractiveness

Some of the interviewees referred to lack of content attractiveness in entrepreneurship education workshops. For instance, subject 9 expressed: "…our field of study is very interesting and has a lot to say. It is an entrepreneurial field of study. However, the physical and educational space of the university negates the things that should be learned in the workshop."

Interviewee 13 mentioned: "…only a series of repetitive content is provided without innovation and even some of the teachers oppose the issue of innovation with scientific topics and want to dictate what they have learned in the MSc and PhD levels to students. They want to determine the path of students without accepting going beyond what is learned in this area."

Interviewee 2 asserted: "…the content of the workshop does not cause creativity in any way and does not present any new ideas. It is just a translation of the book and is far from the new content that really attracts the student."

Secondary Category 5: Mismatch of Content and Time

Some of the interviewees referred to a mismatch of content and time. In this respect, participant 12 claimed: "…the general content of the workshop is not very up-to-date and it seems that the content of the workshop should be updated in order to make the existing knowledge applicable."

Participant 5 marked: "…the same content developed by theorists many years ago is still taught in these workshops, and any attempt to change the course of the workshop will be criticized by the teacher."

Main Category 3: Component of Teaching Method

According to the results, issues related to the teaching method of entrepreneurship education workshops were lack of formation of a dynamic environment to express opinions, lack of sufficient teacher-student communication, lack of attention to extracurricular activities, lack of meeting successful entrepreneurs, and emphasis on traditional teaching methods.

Secondary Category 1: Lack of Formation of a Dynamic Environment to Express Opinions

Some of the interviewees pointed out the lack of formation of a dynamic environment for expressing opinions. For instance, participant 4 mentioned: "…the workshops are not interesting at all and no feedback is received from the attendees during the class…"

Participant 1 affirmed: "…teachers do their best to control the class, which is why they are the sole speaker of the classroom and do not allow students to share their opinions about the content of the classroom…"

Participant 8 mentioned: "…teachers think that they are know-it-all and think of us as illiterate people, which is why they rarely ask for our opinions during the class and mostly talk themselves…"

Secondary Category 2: Lack of Sufficient Teacher-Student Communication

Some of the interviewees pointed out a lack of sufficient teacher-student communication and interaction. For instance, subject 3 marked: "… teachers are more concerned with controlling and managing the class and are only looking to end the class session. They are afraid of interacting too much with students since they fear losing control of the class…"

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Subject 7 expressed: "…most of the teachers are very serious and their interaction with students does not lead to entrepreneurial education. In fact, the teaching method is unilateral, meaning that students are passive and there is no interaction between the teacher and the student…"

Secondary Category 3: Lack of Attention to Extracurricular Activities

Some of the participants mentioned a lack of attention to extracurricular activities. For example, participant 14 stated: "…teachers only consider activities for students in the classroom even though there is a need for extracurricular activities as well."

Subject 11 mentioned: "…learning the skills should not just occur in the classroom. In fact, these activities should be practical outside the classroom so that the skills could be really institutionalized in the students. In addition, we must interact with successful entrepreneurs.

Participant 14 marked: "…deep learning of students depends on dealing with issues outside the classroom and attempts should be made to better learn the relevant content…"

Category 4: No Use of Novel Teaching Methods

According to the interviews, the lack of use of novel teaching methods was expressed as another problem of the curriculum of entrepreneurship education workshops. For instance, participant 5 marked: "…although professors sometimes spark things in our minds with their speeches, most of the time the teaching method is based on the traditional method of lectures."

Participant 2 mentioned: "…the teaching theory of these workshops is mostly theoretical and no practical activity is included in the workshop in order to practice what is learned from the class."

Main Category 4: Component of Evaluation

According to the results, there were some issues related to the evaluation of the curriculum of entrepreneurship education workshops, such as lack of attention to the evaluation of group activities, lack of attention to evaluation through case study and research, emphasis of evaluation on memorizing the content, mere emphasis of evaluation on quantitative tests, and lack of attention of evaluation on performance improvements.

Secondary Category 1: Lack of Attention to the Evaluation of Group Activities

Some of the interviewees pointed out the lack of use of formative and group evaluation as a problem in the area of evaluation of curriculum of entrepreneurship education workshops. In this regard, one of the subjects mentioned: "…Formative and group evaluation are not used and all students are considered on the same level from the very beginning…"

Participant 8 marked: "…these days, it is proven that many talents of individuals can be flourished by group work. However, no assessment is carried out group work, and feedback is received individually…"

Participant 11 mentioned: "…teachers do not encourage students to do group and collaborative work in the workshop despite the fact that success in the modern world relies on interaction with others. Teachers must promote group activities among students and assess this issue…"

Secondary Category 2: Lack of Emphasis on Evaluation of Practical Activities

Some of the participants pointed out a lack of emphasis on the evaluation of practical activities. For instance, participant 12 marked: "…there are many weaknesses in assessing students based on their research. Unfortunately, the main emphasis in this area is on copyright and teachers are strict only at the beginning. Students collect information from only one website without being held responsible for copyright issues…"

Participant 4 stated: "…students attending this type of workshop must be really a researcher. Nevertheless, people leave the workshops after just memorizing a series of generalities. Teachers should encourage students to find the problem and evaluate this type of activity. Nevertheless, no assessment is carried out in this area…"

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Participant 13 affirmed: "…teachers of entrepreneurship classes only focus on the final exam of the semester. It is really optimistic to think that students' learning could be assessed by this method since final exams only evaluate things memorized by students. However, the content memorized by these individuals cannot be used to carry out entrepreneurial activities. Teachers should emphasize the practical and research activities performed by students."

Secondary Category 3: Emphasis of Evaluation on Memorization

Some of the interviewees pointed out the emphasis of entrepreneurship education workshops on the evaluation of memorization. In this regard, participant 14 marked: "…evaluation that may occur in the workshop can only increase the level of knowledge but pays no attention to entrepreneurship…"

Participant 7 asserted: "…in these workshops, evaluation is only theoretical and teachers expect students to present what they have learned in class along with their own opinions. Obviously, the student's opinion has practically no application…"

Participant 5 marked: "…evaluation is only carried out at the level of rote memorization…"

Secondary Category 4: Lack of Emphasis of Evaluation on Performance Improvements

Some of the participants mentioned a lack of emphasis of evaluation on performance improvements. For instance, participant 1 claimed: "…the entire content can never be evaluated with one exam. Given the lack of appropriate assessment of students in these workshops, the learners' performance cannot be evaluated with a quantitative exam. In fact, different methods must be used to take all strengths of students into account…"

Participant 11 mentioned: "…teachers believe that they understand our level of performance better than ourselves. They believe that an essay test can determine our performance, which is not a suitable technique since students may not be at their finest on that day…"

Participant 6 asserted: "…the most important advantage of a good evaluation is to understand one's performance based on exam scores."

Table 2: Curriculum elements and Subcategories Pathology of Curriculum of Entrepreneurship Education Workshops

Curriculum elements	Subcategories	Statements of the participants
Component of Educational Objectives	Mismatch of Objectives with Competency Development	"…these workshops should mainly focus on developing talents that could be used by students such as myself."
	Lack of Tangible Objectives	"…the workshop's objectives are mainly related to the generalities of the field and the goal of the workshop is not clear."
	Superficial Objectives for Evaluation Process	"…the objectives were extremely simple in all of the education courses and their only assessment technique was to take an exam at the end of the semester…"
	Mismatch of Objectives with the Real Needs of the Market	"…the goals and topics listed at the beginning do not seem very up-to-date. In fact, they are outdated and have little place in our field for entering the market…"
	Mismatch of Objectives with the Needs of Learners	"… the main purpose of the workshop did not match what I had in mind…"

Continue of Table 2: Curriculum elements and Subcategories Pathology of Curriculum of Entrepreneurship Education Workshops

Component of Content	Lack of Content Usefulness	"…the workshop is only theoretical and has no practical use and barely covers entrepreneurship topics…"
	Incompatibility of Content with its Use in the Real World	"… the content of the workshop was all outdated and did match the needs of the country at all and were only translated from other countries despite the differences between our culture and the culture of those countries…"
	Lack of Attention of Content to Professional Growth and Development	"…the topics that we are taught in the workshop only remain in our minds for testing…"
	Lack of Content Attractiveness	"…the content of the workshop does not cause creativity in any way and does not present any new ideas. It is just a translation of the book and is far from the new content that really attracts the student."
	Mismatch of Content and Time	"…the general content of the workshop is not very up-to-date and it seems that the content of the workshop should be updated in order to make the existing knowledge applicable."
Component of Teaching Method	Lack of Formation of a Dynamic Environment to Express Opinions	"…the workshops are not interesting at all and no feedback is received from the attendees during the class…"
	Lack of Sufficient Teacher-Student Communication	"…teachers are more concerned with controlling and managing the class and are only looking to end the class session…"
	Lack of Attention to Extracurricular Activities	"…deep learning of students depends on dealing with issues outside the classroom and attempts should be made to better learn the relevant content…"
	No Use of Novel Teaching Methods	"…the teaching theory of these workshops is mostly theoretical and no practical activity is included in the workshop in order to practice what is learned from the class."
Component of Evaluation	Lack of Attention to the Evaluation of Group Activities	"…Formative and group evaluation are not used and all students are considered on the same level from the very beginning…"
	Lack of Emphasis on Evaluation of Practical Activities	"…there are many weaknesses in assessing students based on their research …"
	Emphasis of Evaluation on Memorization	"…evaluation is only carried out at the level of rote memorization…"
	Lack of Emphasis of Evaluation on Performance Improvements	"…the most important advantage of a good evaluation is to understand one's performance based on exam scores."

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Discussion

Today, a large part of entrepreneurship education occurs in medical institutions by holding educational courses or workshops using curriculum potential. However, these workshops must be constantly analyzed based on curriculum components to ensure their effectiveness. The present study aimed to determine the experience of participants regarding the pathology of the curriculum of entrepreneurship education workshops in the field of medical sciences based on the components of Ralph Tyler's model (objectives, content, teaching method, and evaluation). Evaluation of interviews with students revealed some issues in the aforementioned components of entrepreneurship education workshops. In a research on medical students of Mashhad, Shoja-ghale et al. (2014) mentioned the importance of entrepreneurship education programs in the advancement of the country, which is consistent with our findings (13). Aghajani (2013) performed a research on female entrepreneurs of Mazandaran Province and emphasized the unfavorable status of entrepreneurship education courses, which is in line with our findings (14). Amiresmaili also reported similar results in Kerman University of Medical Sciences (2018) (15). Postigo et al. (2002) conducted a study in universities of Argentina, reporting a need for including entrepreneurship education in creativity and innovation education courses (22), which is congruent with our findings. In terms of educational objectives of entrepreneurship education courses, students referred to problems such as mismatch of objectives with competency development, lack of tangible objectives, superficial objectives for evaluation process, mismatch of objectives with the real needs of the market, and mismatch of objectives with the needs of learners.

In a research, Pourabedi et al. (2016) mentioned the lack of effectiveness of the academic curriculum of these courses as a sub-category of managerial/executive factors, which is in accordance with our findings. Aghajani et al. pointed out the low quality of entrepreneurship education programs based on the opinions of female entrepreneurs, which is consistent with our findings. Given the fact that objectives are among the key components of entrepreneurship education courses, the inacceptable quality of these courses could be related to their objectives. Therefore, focus on the objectives in the field of entrepreneurship education plays a considerable role in determining the path and usage of the necessary tools and resources to achieve entrepreneurship education objectives. Since curriculum objectives are the main pillar of designing and developing entrepreneurship education workshops, those in charge of these courses should prioritize these goals in the design of entrepreneurship education workshops. According to the results of the present study, the competency-based approach could be a favorable method for holding entrepreneurship education workshops due to its emphasis on tangible objectives, the needs of the labor market, and learners' requirements. In recent years, this approach has been used as one of the desirable methods in curriculum design to create appropriate opportunities for students to acquire knowledge, skills, abilities, attitudes, beliefs, and values in the form of competencies.

In terms of the component of content in the framework of entrepreneurship education workshops' curriculum, students pointed out some issues such as lack of content usefulness, incompatibility of content with its use in the real world, lack of attention of content to professional growth and development, lack of content attractiveness and mismatch of content and time. In a research, Pourabedi et al. pointed out the ineffectiveness of the curriculum of these courses as a sub-category of managerial/executive factors, which is consistent with our findings. Moreover, Aghakhani et al. reported the unfavorable quality of entrepreneurship education programs from the perspective of female entrepreneurs, which is

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consistent with our findings. Since content is an inseparable part of entrepreneurship education programs, the inadequacy of entrepreneurship education courses can be generalized to this area. In a research, Farnia et al. (2012) assessed the effectiveness of training courses for members of agricultural and non-agricultural cooperatives in East Azerbaijan Province. The more we enter the operational dimension, the more the effectiveness of the courses decreases, which can be due to the emphasis on theoretical topics during the course or the lack of motivation in learners to acquire knowledge and make a change in themselves (19). While the educational course held was different from the desired course of the present research, it seems that the mere emphasis on theoretical foundations is a major challenge of most courses. Since the structure of the content of the courses and the scientific content of the subjects and topics of entrepreneurship education is of special importance and plays the most important role in the level of efficiency of entrepreneurship education workshops' curriculum, these aspects are considered as an integral part of the content for improving the quality of the content of entrepreneurship education workshops.

In terms of the component of teaching method in entrepreneurship education workshops, students pointed out problems such as lack of formation of a dynamic environment to express opinions, lack of sufficient teacher-student communication, lack of attention to extracurricular activities, lack of meeting successful entrepreneurs, and emphasis on traditional teaching methods (e.g., lectures). In this regard, Pourabedi et al. yielded results that were consistent with our findings. Soltani Arabshahi et al. (2004) conducted a research to evaluate the effect of the educational workshop of teaching skills on the teaching quality of residents in Kermanshah. In the end, it was concluded that more attention should be paid to holding educational courses for residents of different clinical fields to empower their clinical teaching skills during a residency in medical schools (18). In line with our findings, the mentioned results demonstrated the challenge of using appropriate teaching methods in workshops such as entrepreneurship education ones. Evidently, paying attention to the element of teaching method as one of the important elements of the curriculum plays a significant role in improving the learning process of learners in today's educational environment. In fact, as long as an unsuitable teaching method is used, learning will not be improved despite the greatly designed content and objectives of the curriculum of entrepreneurship education workshops. Therefore, enhancement of these workshops requires an improvement in novel teaching methods such as case study, group discussion, Q&A, experimental, problem-solving, and scientific tour techniques.

Regarding the component of evaluation in the curriculum of entrepreneurship education workshops, interviewees referred to issues such as lack of attention to the evaluation of group activities, lack of attention to evaluation through case study and research, emphasis of evaluation on memorizing the content, the mere emphasis of evaluation on quantitative tests, and lack of attention of evaluation on performance improvements. In this respect, Aghakhani et al. reported unfavorable quality of educational programs attended by female entrepreneurs, which is congruent with our findings. This is mainly due to the fact that the evaluation of learners is one of the main elements of educational courses. Pourabedi et al. mentioned results that were consistent with our findings. Therefore, evaluation plays an important role in the improvement of the learning-teaching process as the main element of the curriculum of entrepreneurship education since the method of entrepreneurship education assessment is used to evaluate the level of progress in learners.

Accordingly, since entrepreneurship education for students requires the acquisition of competencies, characteristics, skills, and attitudes, the process of evaluating students in terms of the effectiveness of

entrepreneurship education workshops should be carried out in a way that attention is paid to the improvement of students in terms of features, skills and attitudes instead of rote memorization, superficial learning and comparing the students.

Conclusion

Some of the major drawbacks of the present study were low sample size, difficulty in finding interviewees, and attendance of interviewees in limited workshops, which complicated the generalization of findings. Moreover, since this research is in the interpretive paradigm, the mentality and bias of the researcher may have affected the results. Due to the emergence of the third generation of universities under the name of entrepreneurial universities, which has an irreplaceable role in ordering a coherent and sustainable partnership with the industrial sector to cycle the country's economic driving force, it is necessary for curriculum planners and medical policymakers to pay more attention to the curriculum of entrepreneurship education workshops according to the identified problems and to adapt the programs of entrepreneurship education workshops to the needs of medical students in order to provide the necessary space for entrepreneurship education.

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