LETTER to EDITOR

Corona Crisis in Medical Education: How to strengthen educational resilience in professors and students

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Dear Editor,

The Coronavirus 2019-2020 Pandemic is an Acute respiratory syndrome 2 (SARS-CoV-2) which is a result of the corona virus infection. This disease was first seen in Wuhan, Hubei in China in 2019 in March, the World Health Organization (WHO) announced its pandemic.

As a result of the Corona 2019-2020 pandemic, crisis happened in the globe including Iran and had its negative aftermaths in various dimensions. It is expected that all the countries will not be immune to its negative effects and Iran is not an exception too (1,2).

What has happened to the education in Iran is the dominance of virtual education over face-to-face education and presentation of lessons is in the new form. Technology and its application in novel education and the effective use of it by professors despite the problems and challenges is a perceived need.

In the meantime, the existence of many issues and problems in the use and application of distance education and virtual education can put extra pressure on teachers and students and provide the ground for increasing the cognitive load in students, and then the need for self-regulation and self-guidance in them. On the other hand, professors by changing training strategies and learning to change their teaching style and changing their traditional and face-to-face perspective are exposed to a new paradigm in the field of education.

All of the above points to the need for educational resilience in the face of the Corona crisis and its impact on all aspects of students and professors' life. On the other hand, it activates the arena to address the margins of this problem and it reminds the attention that should be paid to it.

Changing face-to-face training to virtual has an impact on resilience, in other words, on the capacity and flexibility of faculty and students in such critical situation.

Resilience is a capacity for resistance to stress and disaster. Psychologists have always tried to increase this human ability to adapt and overcome dangers and hardships. Individuals and communities can rebuild their lives even after devastating calamities (2).

In this article, we have examined the dimensions of corona effects in education and the need to pay attention to educational resilience as an important and debatable field. Also, considering the challenges and opportunities, it was tried to review the development and strengthening strategies in students and professors and provide suggestions for it.

Corona's crisis has created many problems in medical education among which the following can be mentioned:
-The confusion of the foundations of traditionalist and teacher-centered thinking
-Technology-based thinking as a way to things

- The need to pay attention to strengthening individual and academic infrastructure
-The need to improve self-regulation and self-governance in academic affairs
- Promoting information literacy
- Time management in improving academic outcomes
- Building the knowledge students need and upgrade their power. Use of digital resources
- Staying away from face-to-face training
-Changing the internalized basic thinking about teaching and learning in professors
   -Changing traditionalist and teacher-centered attitudes
- Need to improve information and media literacy
- Need to upgrade basic knowledge and up-to-date content production
- The need to upgrade technology-based knowledge about software / hardware
- Changing roles and class disciplines
- Change in communication style and interaction and training management
- Changes in educational expectations

With the above statement, it can be stated that it is necessary to improve the educational resilience of student and professors.

Resilience means the ability to cope with difficult situations and respond flexibly to the pressures of daily life. Resilience is also understood as the ability to cure depression or similar issues (3,4). Resilience is a good way to overcome life's challenges even when there are unfavorable and difficult conditions (5). It is also a mediator between cognitive and emotional intelligence and life satisfaction (6). The concept of resilience during research over the past three decades has recognized social science as a multidimensional phenomenon which in different social and internal contexts are different and in the face of loss or potential trauma (7-9).

Due to the Corona time, it is suggested that the following steps be taken to improve resilience in students:
- Creating purposefulness in education by putting emphasis on expressing the roadmap and moving in the direction of purposeful and step by step education
- Strengthening student and student-teacher interactions
-Strengthening virtual interactions
-Changing educational expectations by giving motivation and encouragement
- Providing motivational and diverse content tailored to individual differences
- Increasing the power of choices in the diverse e-learning
-offering a variety of assessment methods with the priority of formative education and monitoring students' activity
- Supporting Learning Performance and build scholarships suitable for existing learning

- Creating academic motivation and educational vitality in classified simulated environments
- Strengthening time skills, stress management and negative mood
- Strengthen active participation and the impact and role of students in building the knowledge they need
- Accepting change in different situations and being ready to teach and learn in difficult situations

For professors, the following can be used to instruct educational resilience:
- Clear expression of expectations and goal
- Expressing educational changes and the perspective of education in the context of crisis education
- Encouraging and strengthening the performance of professors
-teaching effective and practical training strategies
- Educational empowerment of professors with the aim of promoting information and media literacy
- Supporting the performance of professors in the field of infrastructure
- Improving the skills of changing and developing skills in education
- Using successful national and international models in teaching and learning
- Familiarity with the latest training technologies in the world

- Creativity in the implementation of teaching and evaluation methods
- Strengthening stress management skills / negative mood and time management
- Work and family conflict management skills

Considering the above, it seems necessary to upgrade and empower professors and students by strengthening educational resilience and most importantly, all should be motivated to teach and learn at the present time. This helps to overcome the crisis and bring these two groups together to accept changes during the Corona time and then after the Corona time. As well as it allows them to manage the challenge by accepting the challenges, and through a positive vision of changing, it can improve resilience in students and support them to have the best performance along the way.

Ethical considerations

Ethical issues including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc. have been completely observed by the authors.

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