Development of Medical Etiquette from New Strategies by Art in Education: A Case Study during and before COVID-19

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Abstract

Background: Medical education professionally requires the development of analytical and diagnostic thinking skills, not just accumulation. It used to help the student from exposure to real estate problems by developing analytical skills.

Objectives: This case study reports the process of design and educational outcome of teaching medical etiquette from new student–center strategies by art.

Methods: In this experience, the educational process started during the two courses of medical etiquette courses and is performed every semester from 2018. Combination case-based/scenario-based teaching with art in education in traditional and virtual conditions during three concurrent years was a unique experience to teaching medical etiquette courses.

Results: As a result, this program created fun, engagement, different teaching of lessons in interaction with teamwork, rethinking in performance, and student's excitement and motivation in presenting the students' learning products.

Conclusion: This process is an active cycle of reflection on performance and program and can be used as a model by medical etiquette teachers. We suggest more research should be developed by researchers to access all aspects of program in students' learning and indicators.

Keywords: Medical, Ethics, Teaching, Active learning, Learning, Strategies, Professionalism

Background

What can be seen in teacher-centered education is the transfer of knowledge from teacher to student without enhancing their contribution to learning. Studies show that in traditional teaching methods, the material memorized by the student will be forgotten as soon as possible. Also, teaching lectures is not equivalent to learning because learning is, in fact, the acquisition of knowledge and skills and its application in practice, and should be continued for a long time. The human mind needs simultaneous involvement in emotional and cognitive processes to promote learning. Recently, the impact of art on human performance has attracted much attention of researchers. One of the important goals is to increase the efficiency of the students' mental performance while studying. This improves concentration and attention and provides more effective learning and memorization chance for the student by affecting memory (1).

Art has instrumental and non-instrumental uses in education, which means that it is educated in the future job and plays a role in his personal development. Art is at the center of new ideas for educational restructuring. Given the current situation, the goal of medical education is to empower learners to think and discuss new knowledge, complexities, and uncertainties in a rapidly changing medical world skillfully (2). It seems that the category of art and medical education is integrated with the concept of medicine in humanities. However, it should be kept in mind that the breadth of the humanities of medicine differs from that of art and literature in matters such as therapy. University College London, one of the leading centers in the medical humanities, has provided a definition of the

medical humanities, which is an interdisciplinary activity influenced by the creative and intellectual foundations of various disciplines such as art, literature, and philosophy. Anthropology, etc. pursue educational goals in medicine (3).

The use of art in the teaching and learning of medical sciences has been considered. One of the important goals is to increase the efficiency of students' mental performance while studying, which in this regard affects the improvement of concentration, attention, and memory. The simplest and most common application of art is to increase motivation and create a positive reaction, which is made possible by the limbic reward system. The effects of art education on memory, selective attention, spatial abilities, mathematics, and reading in children are also well known. In addition, art has significant effects on children's ability to deal with social issues (social skills). It has also been reported in a study that the use of art improves the academic performance of individuals in the university (4, 5).

Since 2015, the Deputy Minister of Education of the Ministry of Health has paid special attention to the category of "art and health" and has assigned "promoting knowledge of art and health" as a special mission in the major region nine of educational arrangement. Therefore, using this approach alongside conventional education is a new method in teaching medical sciences. Some experts have noted the artistic interest of learners as a necessary artistic component in the content of the curriculum (6). Research has also shown that combining teaching with emotion is an important way to improve the effectiveness of lessons. Practical attention to artistic education in the medical education system is a wise thing and causes growth in scientific, economic, social, and moral dimensions. Today, maintaining high educational standards depends on placing art and aesthetics at the center, and as the mainstay of the educational system (7).

Studies on the application of art in education have shown that art in education has several advantages, such as sufficient space to provide different solutions to a problem, providing the situation for active participation of learners, increasing and cultivating creativity, nurturing creativity, and improving creative and active learning and teaching. Researches have been designed to facilitate the teaching and learning process, so the integration of art into the curriculum of many disciplines has been suggested (8). This method concludes visual thinking strategies (VTS) and artful thinking. Using these methods is the specific and unique approach to developing a student-center approach (9,10). In new methods of education, such as student-centered strategies, students acquire knowledge and skills themselves, and in these strategies, think about how to rely on themselves in learning and take responsibility for their own learning. This experience expresses the designing art in education of medical etiquette using art elements (paint, role play, and make a video from performance) in a teamwork course.

Objectives

This case study reports the process of design and educational outcome of teaching medical etiquette from new student–center strategies by art.

Methods

This experimental study conducted at Jahrom University of Medical Sciences. The population was all medical students who had medical etiquette from 2018. In this experience, the educational process started during the two courses of medical etiquette courses and was performed every semester. Etiquette course was set with 50 to 59 students in each semester. The course of medical etiquette was based on the new medical curriculum, in the first two years of medicine and during four semesters with different topics.

After the transformation of the medical curriculum in Iran in 2017, medical etiquette is one of the courses that has been provided during the first two years in basic sciences courses the various topics in this course are in the form of psychological, ethical, educational, and professional that are generally taught by different topics. In the field of psychology, which interacts with the field of ethics and professionalism, topics such as effective communication, interpersonal communication, empathy, stress and anger management skills, are covered. In another section, topics such as ethics in cyberspace and cognitive errors are taught in parallel. Overall, at first, lessons with different topics were included in Navid learning management system (LMS). The intervention was performed by presenting the lesson in the form of offline videos and explaining the principles of the lesson using clinical scenarios and cases. These included three topics: anger management, stress management, and ethics in cyberspace. The next step was to provide the assignments. Students were divided into groups of two or three to do their assignments until the end of the semester.

In the first two lectures, students in their groups chose a scenario from a teacher presentation or a content-related topic. After the discussion in the group, they proceeded to prepare a video in the style of role-playing and showed the various correct and incorrect skills in the form of role-playing. The films were prepared and their correct performance and their analysis were uploaded in Navid (LMS of the university). In another part, students were asked to investigate the factors affecting the moral error in virtual environment and causes and explain it in the form of an error tree. The error tree is a graphical model of a combination of series and parallel defects that cause the final event to occur. This model tracks errors from an unfavorable and predetermined event or situation called the top event to the achievement of errors or defects called causal factors. The students drew the error tree after agreeing on the branches of the tree and were then uploaded in Navid (LMS of the university).

The set of student activities assigned the overall score of their performance in the course of medical etiquette in related section.

In the time before COVID-19, the set of activities in the classroom was performed in the form of class groups and team activities and its analysis was done by peers and teachers. After a change in education during COVID-19 crisis, activity shifted to group activities and students' assignments in LMS. Finally, the effect of this

teaching method on the components and indicators of learning, team learning, and learning environment were examined in the form of open-ended questions two weeks later in two stages of traditional and virtual classes. Students criticized the learning method at the end of the semester. The student viewpoint was analyzed by contents. Also, the review of team activities in the classroom and group assignments were observed and analyzed by the researchers through field note-taking and class assessment in traditional classroom (observation of class activity, group dynamic, of the quality of the assignment, group activity). During COVID-19 crisis, analysis was specified from students' assignments in LMS (video contents) and open-ended questions which was providing at Navid about the effects of the educational intervention at the end of the course.

Results

The analysis of this course in the students has been performed from one to three consecutive years. All 330 medical students participated in the study of whom 54.3 % were female and 45.7 % were male with the age range between 19-22 years.

The first part of the analysis was the analysis of open-ended questions about courses, qualities and effect of teaching on students' learning. This part was assessed by an online questionnaire or students' written opinions in LMS. All students' responses were assessed in content expression. The results of the study provoked a fun and attractive environment in teaching and learning in groups which included:
- Creating a fun and engaging learning environment (87%).
- Involvement of students in real learning environment (37%).
- Diversity and uniqueness of learning methods (83%).
- The attractiveness of the teaching method and the presentation of the assignments (75%).
- Deep learning (69%).
- Different teaching of lessons in interaction with teamwork (37%).

Examining the observation of group processes in performing assignments and role-playing revealed the following:
- Efficient students' interactions in learning and promotion of their contribution in teaching and learning.
- The dynamics of the group in face-to-face classes and the students' cooperation in preparing assignments and playing roles and preparing videos.
- Excitement and motivation of the student in drawing the error tree and playing the roles(Variety in painting and sending group assignments with colors and variety of ideas expressed).

- Students rethinking in performing the scenarios and playing the roles in the classroom and then the interest in doing homework without withdrawal.
- All students submitted the assignments with a variety of videos, and the interesting analysis and variety of role-playing revealed their mental involvement with the basics of the lesson.
- Other hidden or implicit results expressed the involving family members in performing problematic and correct roles and capturing videos during COVID-19 crisis, which in itself showed the student's excitement and motivation in presenting the student's learning products.
- More than half of the role-playing in COVID-19 time had been done by the individuals with the help of a family member.

All the above mentioned were explained by teachers' assessment in LMS assignment or group activity observation in the classroom through field note-taking and class assessment.

Discussion

The effects of the game on the memory of its indicators showed that this method has a great impact on creating a fun and dynamic environment. The positive effect of art on the functioning of the human brain and its uses is not new (11). The use of music has been mentioned in some studies and its effect on learning has been revealed. However, in the present study, music was not used as an artistic method (12). In some studies, the effect of art on education in deep and objective learning has been considered very appropriate by students. In this study, this index was considered by the students and they expressed it in the educational outcome of using art.

Medical students can also learn practical skills from film and art; for example, oral communication skills from the performing arts or the ability to analyze philosophy. The use of art in teaching communication skills such as role-playing was used in this study, and the submitted films showed students' mastery of applied principles (13).

In the studies conducted, factors such as the combination of art with other courses have been emphasized (14). In some sources, the use of poetry and stories to teach and pay attention to the artistic interest of learners is one of the necessary artistic components in the content of the curriculum (6). Research has also shown that combining teaching with emotion is an important way to improve the effectiveness of lessons. Students' involvement in their own learning using a variety of ideas and its conflict is a good way in deep learning that was also addressed in the present study (15).

Conclusions

Due to the infancy of this educational method and also the need for further study on its effects on students' learning and performance, it is suggested to implement the method in other medical sciences courses to provide the situation for its application. Also, the variety of artistic elements and their different roles in learning can be a good context for teaching and learning so that we can help students to learn effectively by implementing and reviewing it.

- Students rethinking in performing the scenarios and playing the roles in the classroom and then the interest in doing homework without withdrawal.
- All students submitted the assignments with a variety of videos, and the interesting analysis and variety of role and help study its effects on learning and its indicators.

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