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ORIGINAL RESEARCH

Ethnopsychiatry fosters creativity and the adoption of critical and reflexive thinking in higher education students: insights from a qualitative analysis of a preliminary pilot experience at the Faculty of Medicine and Surgery, University of Genoa, Italy

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Abstract: Creativity is an ability that plays a major role in the modern economy and society. It should represent an important component of the medical syllabus. However, it is often overlooked by the formal courses at universities. The current study aimed at evaluating whether the interactive educational models, recently adopted by the Faculty of Medicine and Surgery, at the University of Genoa, Italy, would favor the adoption of critical thinking, attitudes to changes, cultural diversity acceptance, and the adoption of relational soft skills versus traditional and frontal didactic teaching. Thirty students, who attended the last year of health care professional course at the Faculty of Medicine, volunteered to take part in the study and were randomly allocated to two groups: one group receiving an innovative, interactive excellence course and the other group receiving a more traditional approach. Ethnopsychiatry was chosen as the topic since it was hypothesized that it would have contributed to generation of a new approach toward diseases and patients. The first group of students, exposed to interactive lectures with the aim of promoting the adoption of critical thinking, were more satisfied than the second group. Participants who were involved in an active manner and had to work in small groups, actively finding their own solutions to solve the problems, perceived the utilized teaching method and experience more stimulating, involving, and effective. Implications for education policy makers are also envisaged.

Keywords: creative thinking, clinical case/example, medical education, medical syllabus, medical teaching

Introduction

Creativity is an ability that plays a major role in the modern economy and society.¹⁻³ As stated by the European Parliament and Committee (2009), instruction and vocational training should foster creativity and propensity to innovation, as vital life skills.⁴

It is particularly difficult and challenging to define creativity. Greek philosophers, such as Socrates, Plato, and Aristotle, have attempted to characterize and describe it, but this concept has remained so far rather elusive.

Wallas has proposed seven stages leading to creativity, namely encounter, preparation, concentration, incubation, illumination, verification, and persuasion.⁵ Guilford, who has been a pioneer in the scientific study of creativity,⁶ has stated that "the creative person has novel ideas. The degree of novelty of which the person is capable, or which he habitually

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exhibits ... can be tested in terms of the frequency of uncommon, yet acceptable, responses to items."⁷ Stein has claimed that "the creative work is a novel work that is accepted as tenable or useful or satisfying by a group in some point in time."⁸

Mednick has defined creativity as a "capacity to form new combinations," that is to say the ability to "put together in a useful way ideas usually far from each other." In other words, creativity is seen as a process that gives birth to a new product.⁹

According to Bruner, creativity is the "production of what generates a real surprise,"¹⁰ while May defines it as "the process which brings something new in life."¹¹ According to Rogers, creative processes represent "the birth, the action of a new relational product which on one side stems from the individual's unity, and on the other hand comes from the unity of materials, events and life circumstances."¹²

Torrance has defined creativity as a combination of ability, skills, and motivation.¹³ Motamedi has modified the Wallas' theory, underpinning the following seven components at the origin of creativity: framing, probing, exploring, revelation, affirming, reframing, and realizing.¹⁴

However, some scholars have emphasized how these definitions are biased, being context and culture specific. Treffinger has claimed that "creativity is one of the most complex of human functions."¹⁵ Ford and Harris, taking into account the limitations of the above-mentioned definitions, have defined creativity as "a modifiable, deliberate process that exists to some degree in each of us. It proceeds through an identifiable process and is verified through the uniqueness and utility of the product created."¹⁶

Creativity, generally meant as ability to produce something new or as a way to interpret in a new and original way, recasting, and reframing what has been already realized or acquired, can be found, at different levels and degrees, in every human being and can be implemented by means of education.¹⁷ Being able to keep the interest for creativity alive in young individuals represents, indeed, one of the biggest challenges for educational systems.

According to the prominent French philosopher and sociologist Edgar Morin, universities should stimulate individuals to rely on their critical and creativity abilities, rather than depending only on what has been learnt and memorized. For Morin, creativity, meant as ability to ask new questions, to generate a high variety of ideas, and to reflect about the solving problems process, represents a strategic resource that needs to be cultivated, recognized, and developed.^{18,19}

Thus, cognitive and meta-cognitive skills such as critical and reflexive thinking are also required,^{20–22} as Piaget has also

claimed.²³ Critical thinking can be defined as the "ability/ process of raising discriminating questions in an attempt to search for better ideas, a deeper understanding and better solutions."^{2,24}

In particular, in the field of medical education, critical thinking should play a major role in the medical syllabus.^{24,25} The extant literature shows that long-term tutors, problembased learning (PBL), workshops, web-based tutorials, role-playing games (RPGs), and clinically oriented courses seem to favor critical thinking and foster critical thinking and creativity.²⁴

Therefore, universities should adopt innovative and interactive methodologies^{26–29} and integrate traditional and new ways of teaching different paradigms for learning.³⁰ This is especially true for health care courses and degrees³¹ in that health care workers often make use of these skills and abilities to make clinical decisions.³²

Aims of the current study

The current study aimed at evaluating whether

- the interactive educational models, recently adopted by the Faculty of Medicine and Surgery, at the University of Genoa, Italy, would favor the adoption of critical thinking versus traditional and frontal didactic teachings;
- interactive educational models would favor attitude to changes, cultural diversity, and differences acceptance; and
- 3. interactive educational models would promote the adoption of abilities that could improve the relationship between the health care worker and the patient, such as empathy, also from an ethnocultural perspective.

Patients and methods

Thirty students, attending the final health care professional courses at the Faculty of Medicine, volunteered to take part in the study and were randomly allocated to two groups: one group receiving innovative interactive excellence courses and the other group receiving a more traditional approach.

In particular, both the groups were given the same clinical cases/problems, but

- 1. the first group was involved in activities focused on ethnopsychiatry, promoting analytical skills and critical thinking, reflecting on the importance of acquiring awareness of a proper relational style with the patient.
- 2. the second group attended traditional lectures, without being interactively involved or being taught explicitly relational, reasoning, team, and problem-solving skills.

Table I Main themes and topics that emerged in the two groups dur	ring brainstorming
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Main themes/topics	Group I	Group 2
Expectations about the course contents	 To fill in knowledge gaps considered very important for the professional practice To increase knowledge about new transcultural settings 	
Expectations on the methodology used	 To be actively involved To be encouraged and stimulated to reflect and to adopt critical thinking 	No particular expectation
Comments/suggestions	 To be exposed more in the future to innovative interactive teaching approaches To promote the development of self-awareness and reflexive learning To provide real-world learning situations To provide opportunities for collaborative working and discussion 	 e, • To reduce traditional teaching methods in favor of more innovative ones • To better organize the didactics in such a way to privilege practical experiences

Notes: Group 1: involved in activities focused on ethnopsychiatry, promoting analytical skills and critical thinking. Group 2: attending traditional lectures, without being interactively involved.

Ethnopsychiatry was chosen as topic since it was hypothesized that it would have contributed to generate a new approach toward diseases and patients, helping students to contextualize patients within their own culture and to recognize and respect different, apparently bizarre etiological explanations. Students had to cope with their doubts, prejudices, and ambiguities, overcoming their simplistic assumptions and assuming new sophisticated and complex forms of thought.

The research team utilized the following tools:

- 1. Brainstorming in order to evaluate students' motivation and expectations.
- 2. In-depth interviews in order to qualitatively evaluate the process.

Results

During the first meeting, dedicated to the presentation of the project, students were asked to reflect on their expectations as well as to propose potential suggestions. The ideas that emerged in terms of expectations and suggestions are summarized in Table 1.

Once the experience was concluded, it was found that the first group of students, exposed to interactive lectures with the aim of promoting the adoption of a critical thinking, were more satisfied than the second group. Participants who were involved in an active manner and had to work in small groups, actively finding their own solutions to solve the problems, perceived the utilized teaching method and experience more stimulating, involving, and effective.

Conclusion

This preliminary pilot project began with the hypothesis that by encouraging creative skills, higher education students could understand the processes and the steps leading to the creative product, making learning more effective.

Unfortunately, university professors usually overlook the importance of creativity, neither applying it in teaching nor identifying it in the students they work with. Also the current forms of assessment often prevent students from being creative.

For its mission, the university system should, instead, promote relational and soft skills, and turn itself into what Checkland has called a soft system, that is to say a field in which one does not make use of prearranged schemes and algorithms, but a reality in which unpredictability and complexity of thinking, of relations, and of human actions represent a major source of inspiration and richness.²⁶

This study indicates that a topic such as ethnopsychiatry, usually not taught or overlooked at least in Italy, can promote new attitudes in medical students. However, despite being innovative, this study has a number of limitations that should be properly recognized, namely the small sample size and the lack of standardized questionnaires and approaches. As such, it should be considered as a preliminary pilot study, calling for further research in the field.

Disclosure

The authors report no conflicts of interest in this work.

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