

## SIMED-new doc course, a matter of reflection

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**Abstract.** *Background and aim:* Obtaining a degree in medicine in Italy qualifies for the medical profession; this fact has entailed a newly qualified doctor's remarkable involvement on the medical activities of the National Health Service, especially during the Covid-19 pandemic. It is important to understand the knowledge of the newly qualified doctors and to create specific courses oriented to them. The aim of the study is to evaluate the impact of a peer learning course for the students who attend the last year of medicine school, with the purpose of defining the formal requests to integrate on the course. *Methods:* A pre and post qualitative research has been carried out on SIMED-NEWDOC course. The course consisted on peer teaching lectures, as lecturers were resident doctors part of SIMED board. At the end of the course it has been submitted a survey to the participants, and data has been analyzed. *Results:* The students enrolled were 139, the average of the participants was 27% of the registered. A qualitative evaluation questionnaire was submitted, the responses were 32 (86%). Average age was 25. Participants attending the last year of medicine school were 30 (95%). 40% of them declared to have attended at least 5 lessons. Among the course participants, 96% judged the course as very useful. *Conclusions:* All questionnaire results are useful to reflect on future projects. It is necessary to implement further educational projects to better understand the phenomenon, considering the positive impact that participants declared. ([www.actabiomedica.it](http://www.actabiomedica.it))

**Key words:** Medical Education, Newly Qualified Doctors, Medical Training

### Introduction

Obtaining a degree in medicine and surgery in Italy qualifies the doctor for the medical profession, allowing the new doctor to perform activities for the NHS (1). This change has prompted universities to review their internal organization in order to get graduates ready to carry out their professional activity (2). A qualified doctor can perform different jobs in Italy (3), which are recognized as a freelance activity, but without tutoring during the profession (3). For this reason,

it is important to understand the knowledge of the newly qualified doctors and to create specific courses tailored to their needs.

An important fact is the reduction of the NHS staff, which in many cases could lead to an increase in newly qualified doctors in service (4).

Furthermore, the rapid spread of the covid-19 pandemic (5) has strongly modified the NHS organization (6,7), affecting the healthcare professional training (8,9) of doctors too (10,11), but has also highlighted the importance of newly qualified doctors, who

have been enormously involved in the units for continuity of care (in Italy Unità Speciali di Continuità Assistenziale or USCA) (12).

The knowledge of newly qualified doctors is fundamental in the management of the different settings; their main activities are (3):

Bureaucratic fulfillments for starting the profession:

- Insurance
- Registration with the Medical Association
- National Health Insurance for Medical Doctors (in Italy ENPAM)

Definition of job opportunities and necessary skills:

- Replacement of general practitioners (vaccination campaign, medical certification)
- Continuity of care (management of the patient's non-urgent care needs)
- Training for the non-healthcare workers (knowledge of first aid and BLS)
- Doctor on duty activities in rehabilitation clinics (clinical emergency management)
- General topics (prescription of antibiotics, correct knowledge of the NHS and bureaucracy).

The knowledge of the newly qualified doctors is influenced by various factors (13), but on some issues related to the first phase of the profession it is lacking, in fact some have shown little autonomy in the prescription of antibiotics (14-17) and limited knowledge of vaccines (18- 19) and resuscitation manoeuvres (20,21).

In order to improve practical skills, simulation in medicine plays a very important role (22); in fact, it is related to an improvement in clinical reasoning (23) and to a greater autonomy of healthcare workers (24,25).

Practical and monothematic training courses such as the BLS (Basic Life Support), ACLS (Advance Cardiovascular Life Support) and ITLS (International Trauma Life Support) courses have shown their usefulness in improving emergency management in healthcare workers (26-28).

In addition to training through simulation, the trainers' activity plays a central role; nowadays, in

fact, peer training covers a fundamental role (29), being able to implement also the CV of newly qualified doctors (30).

Unfortunately, despite these two aspects and despite training through simulation and peer training, there is a lack of studies focused on understanding the importance of training aimed at newly qualified doctors that take these aspects into account.

The training project was designed by SIMED (Society of Medicine and Scientific Dissemination), which presents as a constitutive element the development of research projects aimed at improving the autonomy and decision-making capacity of newly qualified doctors, in order to facilitate their integration into the world of work and in post graduate schools.

The purpose of the study is to evaluate the impact of a peer-to-peer course on the population of students attending the sixth year of medicine, in order to define the training requirements to be integrated.

## Methods

### *Study design*

A qualitative pre / post intervention study has been conducted. The study was carried out according to the principles of the Helsinki declaration and was approved by the SIMED board in June 2021.

### *Course design*

Three different course programs have been defined by the SIMED board, based on previous training experiences in the field. In fact, the topics addressed are the collection of different webinars promoted during the covid-19 pandemic.

The three different course programs were discussed with student representatives and university professors. Once the program was defined, the tutors of the different specialties developed the contents of the course.

All the slides of the course were shared with the SIMED board.

The course was defined with the SIMED -NEWDOC project.

### Course features

A course for students attending the last year of school of medicine at the University of Parma was held. The course was carried out through lectures, with peer teaching, in fact the teachers were resident doctors belonging to the SIMED board.

The course lasted 14 hours, divided into 7 lessons, according to the following scheme.

### Survey

The course managers shared a qualitative evaluation questionnaire of the training intervention.

### Data analysis

Continuous variables were presented with mean and standard deviation, while discrete variables with number and percentage.

## Results

The registration for the course was carried out by publishing a registration form on the university websites and on the channels of the students' representatives. Students registered to the course through the registration form were 139. The overall population interested in the course could be composed of students close to graduation, who in the school under study reached 220 subjects. The average number of actual participants in the course was 37 (6.0), equal to 27% of those enrolled. At the end of the course, a qualitative

evaluation questionnaire of the course was conducted. 32 (86%) responses were collected (Tab. 1). The average age of the course participants was 25 (1.2), the percentage of female participants was 56% (18). Most of the participants were enrolled in the sixth year of medicine and surgery 30 (95%).

40% of the participants stated that they had attended at least five lessons of the SIMED-NEWDOC course.

With regard to the request concerning the additional courses, trainees were given the possibility to insert further topics through a box. The answer was free and not dependent on the conclusion of the questionnaire.

At the end of the questionnaire, a box was made available to the students for free comments.

## Conclusions

The Covid 19 outbreak in Italy and the modification in the Health system (31,32) highlight the important of newly qualified doctors. For these reasons a reflection on this group of health professioner must be improve in public health and National Health System

The number of subjects enrolled in the course is 139, equal to 63% of the possibly interested parties, this denotes an important interest in attending the course by the students. The lack of an official channel in the promotion of the course, and the sharing of the information only by student associations may have been reasons for preventing the enrolment in the course itself.

**Table 1.** Number of course participants.

Timing (Hours)	Title	Participants	Percentage
2	Newly qualified doctor's bureaucracy	43	17%
2	Medical emergency in CA (continuity of care)	26	10%
2	General practitioner's substitution	35	14%
2	Psychiatry in CA	41	16%
2	Emergency and newly qualified doctor	45	17%
2	Point of care exams, EGA	35	14%
2	Antibiotic prescriptions	34	13%

The average participation is 27% of the members, this data can be considered positive. The three main factors that may have influenced participation in the course are: the non-inclusion of the course in the University's educational plan, the fact that it took place in May, a time of great commitment for students close to graduation, and finally the fact that it was the first edition.

The demographic characteristics of the participants were in line with the target population of the course; in fact, 95% were enrolled in the sixth year of study. The highest attendance was recorded for the lesson "newly qualified doctor bureaucracies" (43) and "emergencies and newly qualified doctor" (45), showing how the aspects related to the start of work and emergency management are of great importance for the newly qualified doctor, and probably signalling a state of insecurity in the first phase of the career. Several researches have highlighted the importance of practical training to increase the safety of healthcare professionals (17).

In the population that participated in the course, as shown in table 2, 96% of the participants considered the course very useful and the remaining 4% useful. This data could underline the importance of our intervention.

**Table 2.** Assessment of the utility of the course on a 5-Point Likert Scale.

How useful do you think the course is for your profession?	
1 useless	0 (0%)
2 unnecessary	0 (0%)
3 neutral	0 (0%)
4 useful	2 (6%)
5 very useful	30 (94%)

**Table 3.** Questionnaire replies.

Question	Answer YES: Number (%)
Would you like to attend more courses?	29 (90%)
Do you think that the course should be part of the University's educational offer? (eg. ADE course, extra credits, recurring seminar?)	28 (88%)
Would you recommend this course to your fellow students?	32 (100%)
Would you like to attend a practical BLS/D class?	27 (85%)
Would you like to follow a practical ACLS course?	26 (81%)
Do you think that a classroom-based course could be useful for starting the profession?	32 (100%)

As shown in table 3, we highlight that 100% of those who filled out the questionnaire define the course useful for starting the profession and would also recommend it to their fellow students. As many as 90% would have liked to deepen the issues with further meetings, also suggesting the use of clinical and practical cases.

With regard to practical training through simulation, over 80% of students would like to attend a BLS/D or ACLS practical course; this data, in line with the high participation in the "emergencies and newly qualified doctor" lesson, highlights how this topic is of great interest and it is desirable to implement specific projects for the newly qualified doctor.

It should be noted that 88% of participants consider it useful inserting the course as an ADE (Attività Didattica Elettiva) or university curricular activity. This, probably, in order to guarantee continuity to the educational project and a clear definition of the training objectives and the program and, moreover, in order to limit the overlap of this activity with the university ones.

From reading the comments positive elements are evident, such as the usefulness of the concepts learned, but the need to plan the lessons timetable in synergy with the university is also evident.

The study has several limitations. I) 13% of the participants did not respond to the questionnaire, these could be students who found the intervention not very useful. II) the course timetable, as reported in the comments, was overlapped with timetable of the qualifying internships. III) being the first edition of the course, a full and stratified knowledge of the training project was lacking. This may have discouraged the participants. IV) the qualitative nature of the research

does not enable us to fully understand whether the population who received the intervention is more independent than those who did not receive the intervention. For this reason, further research with different study designs must be developed.

The project developed by SIMED, in line with the research objectives of the association, was developed in order to facilitate the entry of the newly qualified doctor into the world of work. The results produced are an important cause for reflection about future projects. Further research projects need to be implemented in order to understand the phenomenon. Considering the positive impact declared by the participants, the development of a training project shared by all universities and implementable at national level is desirable.

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