Making clinical skills education real - Transition from simulation to ward.

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ABSTRACT: Transition from classical clinical skills teaching to simulation-based training has contributed to better medical education. However, a gap still exists between Clinical Skills Lab (CSL) training and the clinical setting. In response, the Transition Programme from CSL to Clinical Reality Setting was designed and implemented in the Medical School of AUTH.

Key Words: Clinical skills, Simulation, Medical education.

INTRODUCTION

Traditional clinical skills education has proven to be ineffective in fully preparing medical students for their role as physicians[1]. A shift towards patient safety, interdisciplinary collaboration, team work and technological innovation, have led to the introduction and use of simulation in medical education[1,2]. In the last few decades, skills laboratories have been used worldwide to help medical students develop their clinical and communicational skills and improve their knowledge so that they can be adequately prepared for real-life situations, while at the same time minimizing the risk to patients[3,4]. However, simulation-based education has some restrictions[5,6]. Accordance to real life and lack of practice in communicational skills are its main limitations[6]. Supervised practice in wards is essential because contact with real patients helps medical students link theory and simulation with reality sooner rather than later, acquire appropriate experience and overcome their initial anxiety, making learning easier, more meaningful and more focused[5]. Involving clinical skills teachers in a supervised practice environment is pedagogically crucial since this process helps students transit smoothly from simulation to actual clinical practice by offering them valuable educational experience and by exposing them to the interdisciplinary collaboration and ethos[6,7].

Clinical Skills Teaching in AUTH Medical School

The Medical School of AUTH has a traditional medical curriculum, divided in preclinical and clinical years. Medical students during the clinical years follow the routine of the clinic they have been assigned to. Usually, large groups of students have a limited number of patients to care for and practice with and, therefore, fewer opportunities for clinical practice. Meanwhile, teaching staff works clinically under tremendous pressure and allocate limited time for teaching. Non-academic staff (registrars or nurses) frequently has to take teaching responsibilities. Furthermore, the lack of co-ordination between departments is leading the students to a diversity of exposures regarding the

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same skills. This kind of clinical practice has many disadvantages, such as lack of supervision and no uniformity in the quality of the clinical skills taught.

Following the new trends in medical education[1], a new optional course, CSL, was introduced to the Medical School's Curriculum in 2005, which offers a different perspective to clinical skills teaching. The main objective of the CSL is to train students in clinical skills in a simulated clinical environment, before they encounter real patients. Every year, 120 medical students attend CSL and learn basic clinical skills. Due to the absence of a Clinical Skills Centre, teaching takes place in the Outpatient Department of the AHEPA Teaching Hospital in Thessaloniki during off-clinic hours. CSL is based on a well-qualified, multidisciplinary teaching team, consisting of physicians, nurses and psychologists.

Medical students who participate in the CSL evaluate the course after its completion. The students noticed that, while the course had given them the basic skills in a simulated environment, there had been a number of limitations. First, they wanted to acquire practical experience with real patients and not just with models and manikins[8]. In addition, they would feel safer if they had a supervisor with them. These suggestions confirm existing findings in the literature[8,9]. In addressing these recommendations, we designed a TP that helps medical students move smoothly from CSL to real patients.

The aim of this paper is to describe this TP from CSL to the Clinical Reality Setting in the Medical School of AUTH.

Tutors recruitment and training

All CSL tutors were invited via e-mail to participate in the TP, regardless of which department they worked in. In order to augment supervisors we asked the students who assist us in CSL to suggest any physician and nurse who had shown a willingness to train them at their clinical placements. We then contacted them in order to find those who were interested in participating in the TP. A seminar was organized to introduce the new tutors to the CSL principles, in order to keep supervision standards uniform and consistent. Participants became familiar with the methodology and teaching materials used in the CSL. Afterwards, written permission for the implementation of the TP was granted by the Head of the Departments in which they worked in.

In total, tutors from 9 departments were involved: the Internal Medicine Department, the General Surgery Department, the Oncology Department, the Day Care Unit, the Emergency Room, the Intensive Care Unit, the Cardiac Surgery Department and the Anaesthesiology Department. We identified basic clinical skills that these tutors could supervise in line with each department's specialty and the content of the CSL optional course (Hand Hygiene, Sterile gloves technique, Waste management, Vital signs measurement, Injections, Venepuncture, Bladder catheterization, Suturing technique, Airway management). The tutors could state their availability in a specially designed on-line form containing detailed information about the specific location, date, time and skills that could be supervised each time. We were in continuous communication with all tutors via phone, in order to address any emerging problems.

Student Recruitment and Facilitation

Graduates of previous semester's CSL course were invited to enrol in the TP via e-mail. We asked them to fill an on-line Needs Assessment Form to state which skills they preferred to practice. Meanwhile, we created an ID personal card for the students to serve as identification for the hospital personnel and a guide-map of the Hospital Units, where practice would take place. In addition, we designed a logbook containing short guidelines about the skills to be learned.

An initial meeting took place with the students enrolled in the programme. All details of the programme were discussed and students' queries were answered. Continuous communication was kept with all students via e-mail, text messages and phone calls.

After finishing the TP, each student completed an on-line evaluation form and participated in focus groups in order to identify the positive and negative aspects of the TP and to plan its improvement.

Booking system

An on-line booking system was created in the Medical School's webpage, where weekly availability of tutors was posted and students could book the supervised session of their choice. For every session there were available information about the exact time, location

Table 1. Steps to organize a Transition Program.

Invite CSL tutors and clinical staff to participate in the Program
Create a tutors group
Obtain written permission to implement the Program in clinical settings
Create an on-line booking system
Create an ID personal card, a guide map of the Hospital and a logbook for the students
Invite graduates of CSL courses to enrol in the Program
Organize an initial meeting with the students
Supervised clinical practice in real patients
Evaluation of the Program

and clinical skills to be supervised, name and contact information of the supervising tutor and the number of places available.

CONCLUSION

The TP was created to ease the transition from the simulated environment of the CSL to the ward-based practice with real patients (Table 1). Since its inception, supervising students in the TP has systematically followed the steps of the CSL training and has kept a uniform practice in all its stages.

An already organized CSL facilitates a TP since the same tutors can supervise students on their clinical placements without requiring any further training. Furthermore, new tutors can integrate easily in the TP because they can rely on the existing educational material and patient-centered philosophy of the CSL.

Students are asked to evaluate both the CSL course and the TP and contribute to its improvement through feedback. Student evaluation of the TP indicates whether its objective has been adequately achieved and the gap between simulation and clinical practice has been reduced. Initial reports have so far been positive. Students have acknowledged the value of clinical practice with real patients under expert supervision.

While first feedback has been favourable up until now, additional evaluation of the TP is desirable. An option would be with Direct Observation of Practical Skills (DOPS)[10] to examine whether the TP actually has succeeded in improving medical students' clinical skills. It would also be interesting to compare clinical skills acquisition between students who participate in TP and those who follow the traditional medical curriculum. The views of patients about the TP must also be recorded. Finally, we should ensure that the number of available tutors fully covers the students' educational needs.

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Εκπαίδευση κλινικών δεξιοτήτων σε πραγματικές συνθήκες - Η μετάβαση από την προσομοίωση στο κλινικό περιβάλλον.

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ΠΕΡΙΛΗΨΗ: Η μετάβαση από τον κλασικό τρόπο διδασκαλίας των κλινικών δεξιοτήτων στην εκπαίδευση βασισμένη στην προσομοίωση συνέβαλε στη βελτίωση της ιατρικής εκπαίδευσης. Ωστόσο, υπάρχει ακόμη χάσμα μεταξύ της εκπαίδευσης στα Εργαστήρια Κλινικών Δεξιοτήτων (ΕΚΔ) και το κλινικό περιβάλλον. Ως απάντηση, σχεδιάστηκε και υλοποιήθηκε το Πρόγραμμα Σύνδεσης του ΕΚΔ με την κλινική πράξη στην Ιατρική Σχολή του ΑΠΘ.

Λέξεις Κλειδιά: Κλινικές δεξιότητες, Προσομοίωση, Ιατρική εκπαίδευση.

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