European Needs Assessment

Needs assessment of health sciences students during their clinical internships in European hospital centers

Authors:

Raul Lopez, MSN, RN *Infection control nurse in HGTiP and Clinical Practice Coordinator in UB*

Daniel Moreno, PhD, **FHEA** *Head of Innovation at GTMN and HGTP, and director of the research group on innovation, health economics and digital transformation.*

Contributors:

David Pares, PhD, MD *Colorectal surgeon and coordinator of the medical teaching unit.*

Cristina Casanovas, MSN, RN *Coordinator of nursing professional development, research and innovation.*

Tehreem Muhammad *International project manager.*

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1. Introduction

The internship process in hospitals by medical and nursing degree students constitutes a fundamental stage in their professional development. Clinical internships are understood differently depending on the country in which they are carried out, but are normally a part of formal training where participation in work activity under the supervision of a teacher takes place in a hospital setting. This process involves not only the acquisition of knowledge, skills and competences that enable the student to adapt to the working environment or to the specialization, but also to develop a professional identity.

In recent years, educational methods have undergone changes, many of them resulting from the pandemic situation. However, practices have maintained their educational methods based on face-to-face and observational learning. In other university subjects, different learning methods/solutions have been added, e.g. online and video-based learning, simulation and competency-based training, among others. This needs assessment aims to gather the knowledge of students and teachers about the characteristics of current practices. Such knowledge will guide the development of the innovative framework, enabling the above-mentioned groups to make informed decisions when planning new forms of blended learning-based practices. Research efforts will focus on identifying and collecting existing knowledge and experiences on innovative educational methods and programmes developed in a multidisciplinary and participatory approach, as a prerequisite for creating practices for the hospitals of the future.

Conducting a needs assessment is a systematic process aiming at identifying not just needs and struggles, but also strengths and desires. While most basic needs (physiological and safety) are normally met in students, it is important to acknowledge that a range of other needs might not. Identifying such needs is an activity that should be carried out on a regular basis by universities, in order improve support and intervention programmes that contribute to the academic success (Flores-Buils, Gil-Beltrán, & Caballer-Miedes, 2012; Lantarón, 2014; Villar Varela & Méndez-Lois, 2014). Therefore, it is necessary for universities to implement an evaluation model to allow the verification of the effectiveness of their efforts towards addressing such needs (Vieira Aller, 2008). The identified needs, which can later be grouped and analysed by trends, will lead to the description of actions and recommendations that might be implemented in future contexts.

This European Needs Assessment report has been built in the scope of the HEAL project, and all participating members have run a local needs assessment following a common strategy and structure, which can be found in the "Guide for the needs assessment of health sciences students during their clinical internships in hospital centres" and is available on the HEAL project website. The five partner institutions involved in the European Needs Assessment are:

Each of the partners conducted local needs assessment, which was based on focus groups and interviews aiming at describing the needs of local students and professionals involved in the internships. These data has allowed the description of the common needs through qualitative assessment. This report summarises the European findings of the Needs Assessment.

2. Methodology

Running focus groups is a well-stablished approach to identify the thoughts of a given group. Based on a common structure and strategy, each HEAL consortium partner run focus groups aimed at students and staff members. The profiles of the focus groups participants are described in Table 1.

Medical students	Nursing students
• First, middle and final year medical students • Active or inactive employment status • With previous work experience in the healthcare sector, previous work experience in another sector, or no previous work experience	• First, middle and final year nursing students • Active or inactive employment status • With previous work experience in the healthcare sector, previous work experience in another sector, or no previous work experience
Hospital staff	**Tutor/coordinator**
• Graduates in nursing or medicine • Active employment status in the hospital • Experience with students of less than 5 years, 5 to 10 years or more than 10 years	• Graduates in nursing or medicine • Active employment status as a lecturer in a private, public or state-subsidised university • Experience with students of less than 5 years, 5 to 10 years or more than 10 years

Table 1 Profiles of the individuals participating in the focus groups

Each focus group was structured in two different parts:

1. A first part consisting of a semi-structured interview, where questions were asked about their current needs, desires and expectations.
2. A second part where the de Bono Thinking Hats process was used in order to reflect on the needs identified during the first part of the sessions and find innovative solutions.

Each partner provided the transcripts and conclusions of the focus groups to the authors of this report. The assessment of the focus groups and the findings was carried out qualitatively by grouping the transcriptions by themes of discussion within the following four dimensions:

Teaching and learning experience	Expectations
• Past experiences during the internships • Teaching and learning methodologies • Experiences with stakeholders • Missing skills	• Preparation for the future • Job market access • Personal expectations • Development of new skills
Technologies	**Vision**
• New technologies in internships • Potential future technologies • Use of simulation, virtual reality, etc. • Eagerness to include new technologies	• Future internships envision • Needs in order to build better internships • Opportunities to improve the model • Barriers that hinder new models

Table 2 Four dimensions were used in order to classify the information collected during the focus groups

3. Local Needs Assessment reports

The six partner institutions in the HEAL consortium prepared a local needs assessment report, where the findings of each local focus group were reported. These reports were made available to the authors of this document, and used in order to build the European Needs Assessment. The following tables summarise the findings from the local focus groups.

Teaching and learning
• It is generally believed that the students are well prepared and have a good basic knowledge before the internships • The objective of the internships seems to be different for the university and the hospital • Thought reflection is positively valued when performed by the clinical teacher • Considering the nature of clinical work, it is generally believed that too many hours are dedicated to lectures and not enough to practice in real settings
Expectations
• A clear and well structured onboarding process is expected. Also, students value positively the experience and availability of clinical teachers • There is an expectation to gain theoretical knowledge during the placements • It would be valuable for the students to have greater responsibilities during the internships • A closer collaboration between nursing and medical students might be beneficial
Technology
• Video diaries for self-reflection represent a development opportunity • A mobile app is currently being used to manage the internships process • Simulation and gamification approaches should be introduced and stablished • Develop skills associated with the use of new technologies
Vision
• Theory and practice come together and find common ground. In this context, there is a vision for having more clinical hours • More and better technology should be used on a day-to-day basis during future internships. Similarly, asyncronic learning might be an interesting opportunity • Promotion of multidisciplinary learning during the placements • Peer learning and self-reflection are key to professional development

Table 3 Summary of the key findings from the Danish Local Needs Assessment conducted by Odense University Hospital and Southern Denmark University

Teaching and learning
• There is a lack of standardization in the responsibilities of each stakeholders supporting the students during the internship process • Better description of the learning outcomes from the practice areas • Teacher/sudent ratios are hindering the learning process
Expectations
• Difficulty in implementing theoretical knowledge during the internships • The students expect a better and more personalised learning experience with clinical teachers • Teacher/Student ratios should be optimised to ensure a satisfactory learner experience
Technology
• Optimise simulation activities in the university so that they can be applied during the placements

Online learning represents an opportunity to enhance the internship experience

- Online learning represents an opportunity to enhance the internship experience
- Virtual reality is not currently available, but could be implemented to improve certain aspects of the placements

Vision

- Supportive learning environments should be encouraged during the placements
- Real-case scenarios to be used as simulation activities
- The standards for what a good internship placement represents should be redefined

Table 4 . Summary of the key findings from the Irish Local Needs Assessment conducted by Trinity College Dublin

Teaching and learning

- It is generally believed that the students are well prepared and have a good basic knowledge before the internships
- Overall, clinical teachers and accessible and provide personalised feedback and support during the placements
- There is a strong alignment between theory and practice due to a smooth collaboration between the university and the teaching hospital
- Teacher/student ratios, together with increased administrative burden, might hinder the learning process

Expectations

- The students expect to be well prepared to face real-world clinical practice after their placements
- In general, the students feel happy with the internship process and what it entails
- Overall, it is felt that it would be valuable for the students to have greater responsibilities during the internships

Technology

- There is reluctance to replace real-case scenarios with simulation activities
- Developing skills in new technologies requires dedicated time and energy that is currently not available
- Asyncronic learning is a good tool that should be used more widely
- Virtual reality is currently being used, and is useful for gaining theoretical knowledge that can be easily applied in placement settings

Vision

- Future internships should take place beyond the hospital and should engage the community and primary care
- Delivering personalised skills development opportunities for students requires to decrease clinical workloads

Table 5 Summary of the key findings from the Dutch Local Needs Assessment conducted by Maastritch University

Teaching and learning

- Students generally believe that clinical teachers are not always available and approachable
- Considering the nature of clinical work, it is generally believed that too many hours are dedicated to lectures and not enough to practice in real settings
- The objective of the internships seems to be different for the university and the hospital

Expectations

- A closer collaboration between nursing and medical students might be beneficial
- There is a common belief that students should connect with the hospital earlier in their programmes, which might allow for skills development in different clinical areas
- It would be valuable for the students to have greater responsibilities during the internships

Technology
• There is reluctance to replace real-case scenarios with simulation activities, which should be optimised to cater for larger number of students • More accessible and cost-efficient technologies are needed • Streaming and remote training opportunities are only useful when based on real case scenarios
Vision
• Theory and practice come together and find common ground. In this context, there is a vision for having more clinical hours and less classroom learning • Internships should begin earlier in the programme and hospital training be made available early in the learning journey • Virtual reality and gamification approaches should be introduced and stablished

Table 6 Summary of the key findings from the Spanish Local Needs Assessment conducted by Institut de Recerca Germans Trias i Pujol

Teaching and learning
• There is an overall belief that the students need longer placements in order to develop the right skills • The objective of the internships seems to be different for the university and the hospital • There is a view that the quality of the clinical placement strongly depends on the availability and experience of clinical teachers • The onboarding process is a key step in the internship process, and should be cared for accordingly
Expectations
• The students have an expectation to have a dedicated clinical teacher, who will support them with the onboarding process and throughout the placement • Overall, staff members expect students to be better prepared before engaging with real patients in the hospital settings • Economic funding should be improved in order to be able to deliver quality placements, which should focus on skills development instead of evaluation
Technology
• Clinical simulation is an opportunity that allows to test skills without the risk of major consequences • Asyncronic learning is a good tool that should be used more widely • Funding for new technologies will allow to develop virtual hospitals, which might represent an interesting training opportunity
Vision
• Appropriate funding and economic rewards should be put in place, and further investment for new teaching technologies • Clinical workload should be encompassed with teaching workload in order to ensure an appropriate dedication • Learning objectives should be well developed and clear for all stakeholders, including the students

Table 7 Summary of the key findings from the Belgian Local Needs Assessment conducted by Haute Ecole Libre Mosane

4. European needs assessment

Connecting theoretical knowledge with real world scenarios is a challenging task. Similarly, building educational programmes that meet professional demands can be difficult. With this in mind, the HEAL consortium has gathered the insights of all the partners involved in the local focus group stages and have identified a number of common, well-stablished needs and opportunities, as well as other specific needs and development areas that might help in reshaping internships in future hospitals.

Well stablished common needs

The following key areas were identified by at least 4 out of 5 partners in the project:

Clear objectives: it is believed that more alignment is needed between academic and healthcare objectives during the internships

Clinical teacher: the role of the clinical teacher is paramount. It is generally agreed that its expertise and mentoring throughout the process is key for professional development

Theory and practice: it is generally thought that it would be best to integrate theory into practice by increasing the number of dedicated internship hours

Accountability: the role of the student in the clinical team should grow with the student. It is important for students to feel responsible, accountable and part of a team

New technologies: more and better new technologies are needed. Virtual reality represents a training opportunity that should be further explored

Simulation: recreating real-life scenarios is a great tool to further knowledge. However, it is important to use these tools appropriately so that they resemble clinical reality

Funding: more investment is needed in order to ensure that appropriate rewards and recognitions are in place, as well as to implement novel methodologies

Commitment: internships are a key in medical and nursing degrees. As such, it is believed that they should begin earlier in the courses and have a later end

Figure 1 Well stablished common needs

Shared development areas

Student knowledge: it is important to ensure that students have a good preparation and a minimum knowledge and set of skills before beginning the internships

Rotations and specialities: students are keen to engage in different speciality areas in order to build a diverse skillset and knowledge about future professional opportunities

E-learning: online learning provides an opportunity to train asynchronously and remotely. However, better training platforms are to be developed and implemented

Gamification: new tools could be implemented to further evaluation. Gamification will play a key role in assessing new skills development and encouraging new behaviours

Figure 2 Shareddevelopment areas

Specific opportunities

Onboarding: an appropriate onboarding process is key to ensure a good student experience. A good welcome helps the student integrate with the healthcare system

Support structures: up-to-date infraestructures and working spaces are needed in order to ensure that new teaching models and approaches can be implemented

Video: short pre-recorded videos provide an opportunity to encourage self-learning and reflection, thus promoting critical thinking and future professional self-assessment

Figure 3 Specific opportunities

5. Development of innovative teaching methods

Building new internships and drive a paradigm change is a challenging process. In order to do this, it is clear that an innovative teaching framework is to be developed, which should address and keep in consideration the needs identified in the current needs assessment. By building on the focus groups findings, three key areas have been identified:

1. Model transformation
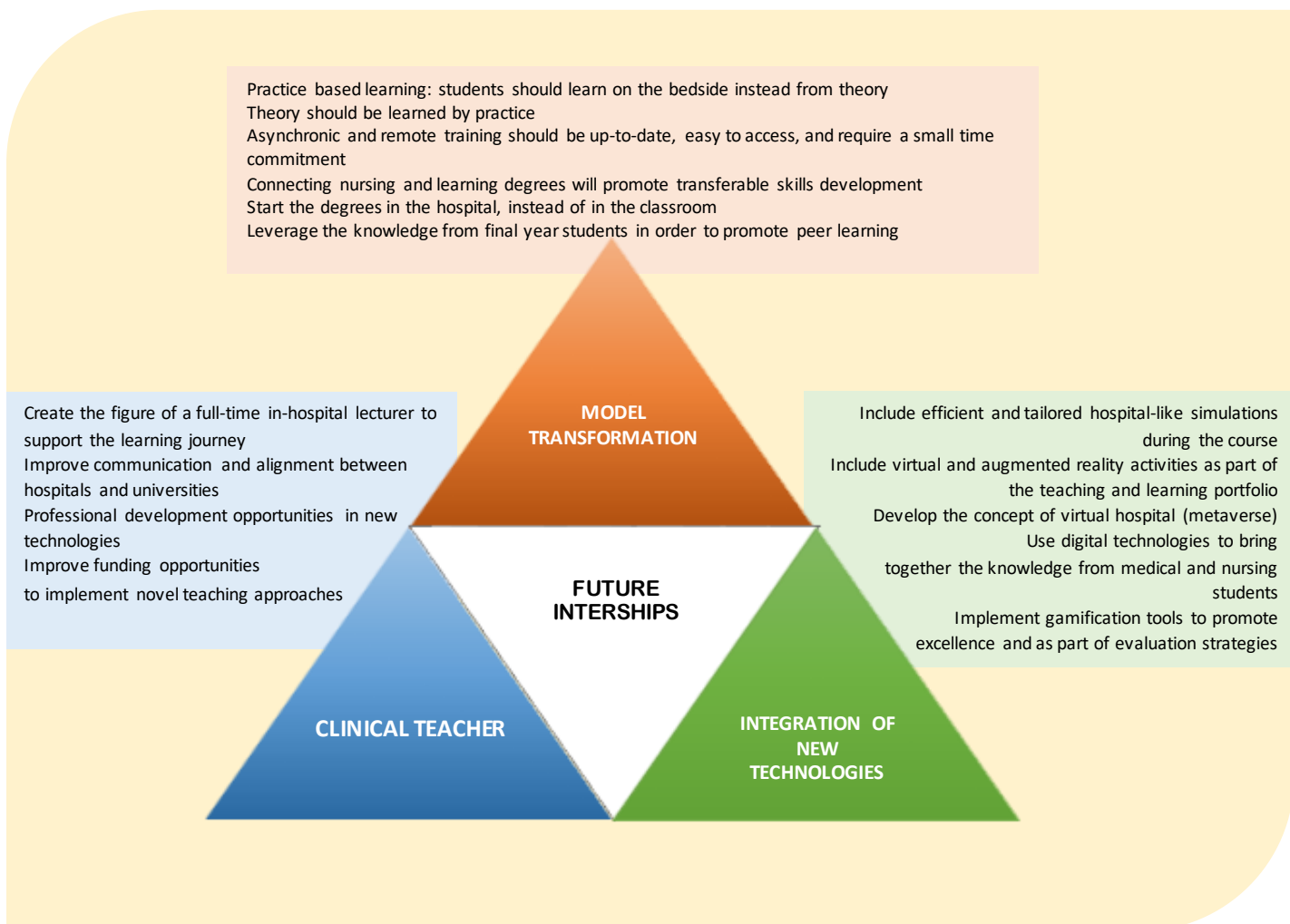2. Integration of new technologies
3. Clinical teacher

Practice based learning: students should learn on the bedside instead from theory
Theory should be learned by practice
Asynchronic and remote training should be up-to-date, easy to access, and require a small time commitment
Connecting nursing and learning degrees will promote transferable skills development
Start the degrees in the hospital, instead of in the classroom
Leverage the knowledge from final year students in order to promote peer learning

MODEL TRANSFORMATION

Create the figure of a full-time in-hospital lecturer to support the learning journey
Improve communication and alignment between hospitals and universities
Professional development opportunities in new technologies
Improve funding opportunities
to implement novel teaching approaches

Include efficient and tailored hospital-like simulations during the course
Include virtual and augmented reality activities as part of the teaching and learning portfolio
Develop the concept of virtual hospital (metaverse)
Use digital technologies to bring together the knowledge from medical and nursing students
Implement gamification tools to promote excellence and as part of evaluation strategies

FUTURE INTERSHIPS

CLINICAL TEACHER

INTEGRATION OF NEW TECHNOLOGIES

Figure 4 Future Interships

6. Limitations of this report

Europe enjoys a common high education framework that allows Europeans to be connected. Nowadays, it is possible for the European workforce to seemingly work and live almost anywhere in the union, since skills and training standards and very high throughout the territory.

Nevertheless, there are differences at the organizational and managerial level among European countries, which in turn affect and influence the internships in which healthcare students participate. Other factors such as the culture, the working environment, or the local the economy might also influence the needs of the students and teachers. Similarly, language diversity might represent a challenge to overcome. To this extent, the partners involved in the HEAL project have noticed while conducting the needs assessment that there is a lack of common understanding, wording and semantics when it comes to explaining the stakeholders and steps involved in the internship process in each different setting, which might lead to misunderstandings and confusion when building common approaches.

These factors, which have been identified by the HEAL consortium, are beyond the scope of this project and should be addressed in future collaborative pan European studies.

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