

Inter-Professionalism in Health Care Post-graduate specialization: an innovative Laboratory

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Abstract. *Background and aim:* Inter- professional Collaboration (IPC) is an important component of a well-functioning healthcare system. It is linked to improvements in patient safety and case management, optimal use of the skills of each healthcare team member and provision of better health services. Inter- professional Education (IPE), is one key factor in the development of positive behaviors useful for IPC: the basic and post-basic training are key moments to raise awareness, train and help implement the IPC. Aim of this paper is to present and evaluate the use of an innovative laboratory of Consensus Conference implemented in the Nursing Post-graduate specialization at the University of Parma to train students to IPC. *Methods:* An Innovative Laboratory inspired by of the Consensus Conference (CC) methodology on the “Integrated Narrative Nursing Assessment” was designed. Three Post-graduate specialization courses were involved and assigned to different tasks in the CC, according to the characteristics of the specializations. *Results:* Strengths and weaknesses of the methodology were analyzed. Strengths: students’ engagement in their competencies building, and the acquisition inter-professional collaboration skills. Weaknesses: the lack of time to develop the whole process, and the need of a deeper guidance in the scientific production. *Conclusions:* Although the methodology have to be continuously improved through practice, this experimental Laboratory reached the aim of offering a real experience of IPC to the students. They really collaborated with different professionals to reach a common goal and being already considered an expert. (www.actabiomedica.it)

Key words: Inter-professional, Education, Collaboration, Post-graduate specialization, Health Care, Innovation

Introduction

1.1 The Inter-professional Collaboration

Inter- professional Collaboration (IPC) has become an important component of a well-functioning healthcare system, because it is critical to the provision of effective and efficient health care, given the complexity of patients’ healthcare needs and the range of healthcare providers and organizations (1). The IPC occurs when “two or more healthcare professionals who have specific roles, perform interdependent tasks, and share a common goal; a negotiated agreement which

values expertise and contribution that each individual brings to patient care” (2). The IPC has been linked to a range of outcomes, including improvements in patient safety and case management, the optimal use of the skills of each healthcare team member and the provision of better health services (3-7).

Indeed, collaboration between healthcare providers is necessary in any health care setting, as there is no single profession that can meet all of a patient’s needs (8).

The interdisciplinary cooperation and good teamwork are important components of clinical settings, and when they are lacking, the consequences may in-

clude negative patient outcomes, a low level of professional work satisfaction, and wasted resources (9).

It has been well documented that a lack of collaboration and communication between health professionals causes stress and frustration in the professionals, has a negative impact on the quality of care, on patients' health outcomes and on their safety, as, for example, adverse events, medical errors, increased complications and consequent increase in the duration of hospitalization. On the contrary, the shared decision-making by the whole care team determines a better quality of care, greater patient satisfaction, a reduction in the average length of hospital stay and a consequent reduction in costs (10).

1.2 The Inter-professional Education

The concept of IPC is often accompanied by that of Inter-professional Education (IPE), which is considered as one key factor in the development of positive behaviors useful for IPC in the context of health care (11): the basic training and post-basic training are in fact key moments to raise awareness, train and help implement the IPC.

IPE refers to occasions when two or more professionals learn with, from and about each other to improve effective collaboration, the quality of care and the health outcomes (12-14). The IPE can be considered as the set of training interventions in which members of more than one health or social care profession (or both) learn interactively together, with the aim of improving inter-professional collaboration or the health/wellbeing of patients/customers (15).

The link between IPE and IPC is clearly represented in the WHO Framework for Action on Inter-professional Education and Collaborative Practice (2010), which expresses the importance of starting from the health needs that occur in local situations, to intervene through IPE both in training courses for new professionals and those dedicated to those already working, in order to build solid teams that constantly act in a collaborative way. The path that leads to the collaboration of professionals in clinical practice leads to at least two important outcomes: increase the strengths of the health system and improve the results in terms of health.

Therefore, the goal of the IPE is to integrate collaborative practice in the educational context, so that the clinical experiences of the students are as similar as possible to the real care activities that they will have to face once the training course has been completed, creating good conditions for the development of instances of change in the health care sectors (16).

1.3 The Inter-professional Education Collaborative Core Competencies

The IPE can take place in academic and non-academic contexts or in the context of continuing education (13, 17).

Literature is divided about the teaching pedagogy that can be successfully tailored to match goal setting and desired outcomes of an IPE program (18). Some researchers have argued that a standard IPE module can be delivered during pre-qualification (19), while others have indicated that it can be taught both before and after qualification (20).

Anyhow there have been many indications given to the training field over the years to favor the construction of IPC during the training courses.

The most well-known and most followed are those defined at international level by "Inter-professional Education Collaborative Core Competencies for Inter-professional Collaborative Practice" (2016) (21), which indicate four "core" competences, oriented by two fundamental principles: 1) the centrality of the patient and the family; 2) the orientation to the community and to the population. These competences are:

1. Values / Ethics for inter-professional practice: working with individuals of other professions maintaining a climate of mutual respect and sharing values.
2. Roles / Responsibilities: use the knowledge of their role and those of other professions to evaluate and adequately address the health needs of patients and to promote and improve the health of populations.
3. Inter-professional communication: communicate with patients, families, communities and professionals in the health and / or other fields in a responsible way, in order to support a team approach aimed at the promotion and maintenance.

nance of health and prevention and treatment of diseases.

4. Team and Teamwork: build relationships and manage group dynamics to take on different roles in the team, plan, deliver and evaluate person / population-centered care and policies that are safe, timely, efficient, effective and fair.

1.4. The effect of Inter-professional Education

Guraya and Barr (2018) (22), in their systematic review and meta-analysis, identified many positive outcomes of the educational intervention by teaching and developing IPE courses in various disciplines of healthcare.

The effectiveness of pre-post design has been shown in general to have a positive impact in improving the knowledge, skills, and attitudes of learners about collaborative teamwork.

Several other studies have shown that IPE promotes interdisciplinary collaboration and teamwork (23, 24) reduces the barriers and preconceptions prevailing among various healthcare groups and promotes professional competencies (25). For example, Reeves and Hean (2013) (26), stress the importance of inter-professional education as being supportive in the development of professional identity, insight, and competency, all of which impact client care.

A recent longitudinal study on IPE learning course to health professional students (27) also found, that among students increased significantly from before to after the course, the abilities to: demonstrate knowledge, skills and behaviors of teamwork/collaboration, values/ethics, and quality/safety as an inter-professional team member; demonstrate collaboration, teaming skills and behaviors as an inter-professional team; identify the unique roles and responsibilities of each health care professional within the inter-professional team and articulate a shared, inter-professional identity as a health care professional.

Vereen et al (2018) (28) have found that the implications of the IPE for graduate students training to be professional counselors include a decreased stigma towards counseling, a better understanding of the roles and responsibilities of professional counselors, increased likelihood for client referrals, preference for

inter-professional collaboration, and seeking out personal counseling services.

Anyhow Groessl and Vandenhouten (2019) (29) stressed the importance of measuring the readiness of Master students and practitioners to adapt to this model of practice. Careful consideration of readiness can help to best create pedagogical experiences that can foster interactions that improve the likelihood of positive patient outcomes.

Despite these important evidences as Zheng et al. (2018) (30) underlined, remains little evidence on the lasting effects of IPE courses and the long-term influences of these IPE experiences are poorly documented.

Therefore it would seem important to find further insights into the long-term aspects of inter-professional education and collaborative practice, as well as the impact of inter-professional education and collaborative practice on the growth, development, competency, and professional identity of professional in training.

1.5. The development of Inter-professional Education

The international literature identifies IPE as important in preparing nursing students and other healthcare professionals for their roles as healthcare providers (31-33).

For many years in the USA and Canada, important support has been guaranteed at the government level and by private organizations for projects relating to both IPC and IPE (17, 34-38), including the creation of documents to support the dissemination of IPE at an academic level (39, 40).

This approach of engaging multiple health workers from different professional backgrounds working together with patients, families and communities has in fact been shown to provide the highest quality of patient care (41).

In Europe, sensitivity to, and support for, these essential themes occurred several years later, but it was supported equally by some countries that considered them important as a response to healthcare needs in continuous evolution (42).

Examples of IPE programs established well are represented by the experience of the Linköping University (Sweden), Karolinska Institutet of Stockholm,

and The Royal London School of Medicine and Dentistry (43).

In Switzerland, the Académie Suisse des Sciences Médicales (2014) (44) provided significant support at the national level. Applying its “Charte of Collaboration Entre Les Professionnels De La Santé”, it wants to help optimize patients’ treatment to ensure health-care. It has been also argued that the interprofessional approach should characterize both practice and graduate and postgraduate training. This position has helped strengthen the commitment of those academic institutions that for years have been experimenting with IPE models for different healthcare professions by providing common modules that integrate specific knowledge (10). The research financed by the Swiss National Research Fund also is dedicated to understanding the factors that facilitate and hinder IPC in these institutions (45).

In Italy, the DECREE 22nd October 2004, n.270, regarding the “Amendments to the regulation concerning the teaching autonomy of the universities” (Article 10, paragraph 5) (46), states that “The courses must provide activities training in one or more disciplinary areas similar or complementary to the basic and characterizing ones, also with regard to contextual cultures and interdisciplinary training”.

Nevertheless, medical education curricula and healthcare degrees have included IPE programs in some universities only in recent years, although these experiences are still local, and are not formalized nationwide (41).

Methods

In order to allow students to live a practical, guided, and controlled experience of inter-professional collaboration, we decided to design an Innovative Laboratory inspired by the scientific methodology of the Consensus Conference (CC). CC is one of the tools available to reach, through a formal process, an agreement between different figures (representatives of different professions and disciplines) with respect to particularly controversial and complex health issues favoring the choice of guidelines as uniform as possible in clinical practice aiming to provide patients with the

best quality of care in relation to available resources (47). Therefore, the practical simulation of a CC was an ideal methodology to combine three educational pillars of the Post-graduate specializations (PgS) in Nursing Sciences: the importance of research, inter-professional collaboration, and the quality of patient’s care.

We decided to organize at the Department of Medicine and Surgery of the University of Parma a CC Simulation Laboratory on the “Integrated Narrative Nursing Assessment” (48). This is an innovative approach to the integrated assessment of the person person which, despite having demonstrated its applicative validity at different stages of the person’s care (49-51), has yet to find an effective application space within the health practice.

As in this experimental phase we still had to evaluate the effectiveness of the application of this methodology, we decided to limit the professional involvement to three Post-graduate specializations:

- PgS as Expert in Innovative Educational Methodologies in the social-health environment;
- PgS in Case / Care management in the hospital and on the territory for the health professions;
- PgS in Palliative Care and Pain Therapy for Health Professions

The choice fell on these 3 courses due to the intrinsically inter-professional nature of the roles the students are trained for. This experimental opportunity has therefore proved to be perfectly suited to this formative need.

Furthermore, the students of each PgS were assigned to different tasks (all central to the performance of a CC) according to the characteristics of the PgS they attended.

Specifically, students attending the PgS as Expert in Educational Methodologies, whose goal is training experts in teaching methods innovative and more suitable to favor the achievement of the learner’s foreseen performances, supervised by the didactic Tutor, were collectively entrusted with the task of studying and organizing the methodological structure of the CC. During the course of the same they were divided into small groups to cover the functions of the organizing committee, the writing committee, the scientific secretariat and the organizational secretariat.

Students of the PgS in Case / Care Management, whose goal is training professionals with specific skills in taking care of the person, the family and in the management of care pathways, as they receive intense training during the year on integrated narrative assessment, so much so as to become experts in INNA, have collectively held the role of technical scientific committee, and have then been divided into working groups that have collected the background information useful for answering the CC's questions.

Students of the PgS in Palliative Care, whose goal is training professionals with specific skills in the field of palliative care and pain therapy, able to manage global care strategies, and which focuses on the acquisition of the competence of team work, were included in the panel of judges, together with experienced professionals from the high level sector.

The students were then invited to discuss, using the CC's methodology on four questions concerning INNA:

1. What is the definition and which are the essential constituent elements of the INNA model?
2. How to use the Integrated Assessment (qualitative and quantitative)?
3. What are the fields of applicability of INNA?
4. What are the advantages and disadvantages of introducing INNA?

Results

Strengths and weaknesses of the educational strategy

The implementation of a Simulation Laboratory of a high-level scientific methodology to stimulate the situated formation and the inter-professional contact, being completely innovative, requires a careful final evaluation and a balance of the strengths and weaknesses of this approach, to be able to evaluate the implementation of this one within the standard educational strategies offered by the PgSs.

Strengths

This strategy proved to be successful in promoting student Engagement in their training process. The

term Engagement, taken from the health field, refers to the ability, will, and gradual choice of people to take a proactive role in managing their own health (52). In this case, applied to the training context, the Engagement of the students can be translated into the will, commitment and, subsequently, perception of being active components in the management of their acquisition of new professional skills, feeling themselves as performers and experimenters of the skills that were taught to them during the PgS's course. The perception reported by them, even if only at an anecdotal level, was that of a real but safe context in which they could experiment as highly qualified professionals, "a skills' incubator" that allowed them to feel sufficiently effective before bringing these same skills in their real work environment.

In particular, the students of the PgS as Expert in Educational Methodologies reported an important level of satisfaction linked to the possibility of acquiring and directly managing a new, complex, and scientifically very relevant educational competence.

Students of PgS in Case Care Management, from their point of view, experienced with great satisfaction the possibility to get out of their role as learners to become in effect "experts" of an innovative and articulated theme to analyze and deepen.

Students of PgS in Palliative Care, on their turn, reported satisfaction with the possibility of putting into practice what they had learned about team work, being guided in the role of Panel, by an expert in the field. This allowed them to see in vivo the strategies used by the experts in the mediation of a team meeting, allowing them to identify themselves with the expert and to feel able to export these strategies in the real context of work in palliative care.

Weaknesses and Improvement Trajectories

Using a Consensus Conference Simulation Laboratory as an educational methodology, given the absence of previous applications at an experimental level, must foresee the acceptance of a continuous construction and adjustment of the necessary methodology and, therefore, a thorough and sincere post hoc evaluation, in order to identify the main weaknesses and clearly trace the lines of improvement of this methodology,

allowing to generate future hypotheses for the management of this Laboratory, more and more accurate and tailored to the educational needs of the students.

The first improvement trajectory is linked to the total time management times of the Laboratory. From the work carried out, we noticed the need to use longer times for the assimilation of the processes implemented (working groups, panels, drafting recommendations). It is necessary to take into account the inexperience in the field of the actors involved and therefore the need to have more time available for the preparation of scientific material.

Second, fundamental, improvement trajectory is increasing the support to be provided to students on the scientific elaboration of the work. The tutors of the PgSs, experts both in training and in scientific research, will have to accompany and better support the scientific elaboration process, offering appropriate contributions and incentives to increase the methodological rigor of the final elaborations (work group output, recommendations). Therefore, in a future perspective of the Laboratory, we hypothesize structuring the research and content analysis phase to a greater extent, also broadening the spectrum of high-level skills acquired by the students thanks to this tool.

Furthermore, we must consider the specific difficulty related to the theme chosen for this Consensus Conference Laboratory. The INNA approach is a new theme, a model recent, little investigated, and that has not found yet full application at the experimental level. This was accompanied by an understandable lack of scientific familiarity of the participants who, therefore, faced a major challenge in the construction of the scientific background, which in this case foresaw the need to expand bibliographic research to related themes not directly linked to the INNA approach .

Discussions and conclusions

As stated by Bianchi e Bressan (2019) (42), the investment of resources to develop IPE programs that generate the conditions for its realization is currently significant (40), even because the IPE represent strategic opportunities to prepare a more flexible healthcare workforce able to maximize limited resources and

provide a wide range of different services together in a variety of healthcare settings (53).

Having this in our mind, we decided to experiment this new method, as we deeply believe that a good training should include a continuous investment in searching for strategies able to give to students and professionals a whole new set of competence but also of experience.

The vision that underlies these Post-graduate specializations is creating professionals who are high level experts in their field, not just who gather new and specific knowledges.

The Innovative Laboratory, seemed to be effective in this. Although the methodology and structure have to be continuously improved through practice, we can state that this experiment reached the aim of offering a real experience of IPC to the students. They had the chance to really collaborate with different professionals trying to reach a common goal and being already considered an expert.

The widespread advocacy and implementation of IPE reflects the premise that IPE will contribute to developing healthcare providers with the skills and knowledge needed to work in a collaborative manner (17, 39, 54).

All these evidences underline the need to think to the IPE approach as a new paradigm also in nursing education (55) (O'Connor, 2018), which contrasts with multi-professional education where health professionals learn alongside one another in a parallel manner (56).

The new methodology here proposed, facilitates the comparison and collaboration between students/professionals, that is preparing them to the moment when they will find themselves working together in clinical practice at the end of their training.

The first thing is to understand clearly is the important effects that this paradigm shift will have in improving the healthcare system, both with respect to patient outcomes and professional satisfaction. Therefore, it is essential to promote IPE as a unique approach to train healthcare professionals and consider the different mechanisms that shape the way IPE is developed.

These can be divided into two categories: "educator mechanisms (for academic staff, training, cham-

pions, institutional support, managerial commitment, and learning outcomes) and curricular mechanisms [logistics and scheduling, programme content, compulsory attendance, shared objectives, adult learning principles, and contextual learning: (17), p. 12]. With awareness of both these points, it will be possible to act effectively and efficiently and seek the active collaboration of the other professions involved in this cultural change (42).

In particular, according to Reeves and Hean (2013) (26), the challenges facing educators and supervisors is an inability to conceptualize the utility and value of inter-professional education and its overall impact on the development of the individual and collaborative care teams.

This Innovative Laboratory is a good method to face these challenges, being a moment that will necessarily put under the spotlight the crucial importance of IPE, for students, professional, supervisors, educators and everybody involved in the construction of this unique and satisfying experience.

Conflict of interest: None to declare

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