

**Applying Integrated Practice Units to organize
clinical research around a medical diagnosis**
Pedagogiskt docenturarbete

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Applying Integrated Practice Units to organize clinical research around a medical diagnosis

Background

In clinical research environments there are usually part-time PhD student and they are important for the research performed in the departments. My own research during my PhD time could probably have been better with more collaborative teaching, peer reviewing and organized seminars. Clinical research takes time, it's not uncommon that a PhD program takes over eight years to finish and during this time there are times when the student and supervisor can feel a lack of motivation and creativity. Today, in many departments, there is little collaboration between research groups, even if it is a small clinical department many students and supervisors are not exposed to other research and supervision styles. A typical department may have 4-5 supervisors and each of them have 1-3 PhD students and the groups many times don't cooperate. Peer learning or collaborative learning according to Boud (1988) can be defined as: *a two way reciprocal learning activity and should be mutually beneficial and involve the sharing of knowledge, ideas and experience between the participants. It can be described as a way of moving beyond independent to **interdependent** or mutual learning.*

Topping defined in 2005 peer learning similarly *as the acquisition of knowledge and skill through active helping and supporting among status equals or matched companions.*

Without little peer learning what happens with creativity? Creativity could be defined as "the development of ideas that are original and useful in the research." Creativity is fundamental and Csikszentmihaly wrote that "creativity does not happen inside people's heads but in the interaction between a person's thought and sociocultural context" (Csikszentmihaly 1996).

One good way of enhancing peer learning, supervision and creativity can be monthly open seminars in the department, sometimes these if possible can be arranged as PhD **away** day that is described in a midwifery research activity in Ireland, for promoting a feeling of togetherness. (McCarthy 2010). If we look beyond our own profession with mainly physicians doing clinical research, what about nursing sciences, occupational therapists, physiotherapists in the same department? Most probably there is too little cooperation and also if we look at other specialists in other departments. For example; a liver surgeon can perform research on the liver, but also a gastroenterologist and a cell biologist in a preclinical department can have the liver as a research object. In Parkinson's disease for example, a Neurosurgeon as well as a Neurologist, physiotherapist, Parkinson disease Nurse, Primary care providers and Engineers- all with maybe different topics but still the same patient and diagnosis. Coles wrote; "Health care professionals tend to work autonomously, even though they speak of being part of a team." This can be the same in research. **How can we look beyond our own profession and department and Why? - Increased collaboration between professions with different backgrounds will stimulate better supervision, peer learning and creativity and also in a hopefully greater allocation of funding's.** This is also very beneficial and proven in patient safety aspects.

How to start?

Integrated practice units (IPU). In an IPU, services are designed around a patient's medical conditions, for example, in a department for spine care. Within this structure would be all the providers /resources necessary to deliver spine care to the patient (physiotherapist, orthopedic surgeon, neurosurgeon, pain management, chiropractic, behavioral health, social work, etc). Bringing providers together in this fashion would allow for informal and formal meetings that could result in the creation of protocols and standardization of care. This in

turn can result in a greater allocation of resources through collecting meaningful outcomes that a team can use to improve their processes of care (Porter M).

All this is applicable in research.

We started in clinical neurosciences which include Neurology, Neurosurgery, Neurophysiology, Neuroradiology and Neurorehabilitation. A “researchgroup” was established with one member from each department. A research group team captain was chosen and given time to organize. The group will report back to the management group. Research was one part of the IPU work, how we work clinically around different diagnosis was thoroughly investigated by a number of teams working around a diagnosis.

The aim is to:

- Strengthen clinical research
- Stimulate translational research (combine disciplines, resources, expertise, and techniques).

How:

Map the existing research projects in different diagnosis eg Movement disorders, Epilepsy, Braintumours, Multiple sclerosis, Head injury, Hydrocephalus etc.

The survey of ongoing research was carried out by inviting all known research individuals to present their projects for the research group during 45 minutes. PhD student with a supervisor outside the clinical neuroscience department represented here were also invited.

Interestingly, in the area of Brain Tumour research, seventeen projects were presented and many different professionals were represented.

When the survey is finished the goal is to have a “research day” where selected projects will be presented to stimulate research.

Conclusion:

Organizing research around the patient/diagnosis involving multidisciplinary and professional teams dedicated to the diagnosis can further strengthen research and can also result in greater allocation of financial and technical resources. It will also stimulate collaborative learning and creativity but also supervision. Since there are a lot of ongoing projects, the need of a part-time research coordinator working over department boundaries was confirmed as very important and as a result of this co-funding is discussed with the management of the different departments. A thorough review of the projects can also result in collaboration with preclinical departments. Open research meetings should be open and organized multidisciplinary, not limited to one small department but inviting different departments and professionals. This would be good since there is a problem in the clinical settings that too few people participate due to other upcoming issues and the meetings are sometimes cancelled due to this. Each semester a different department could be responsible for arranging the seminars and different professionals should present topics.

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