From learning a clinical reasoning process to incorporating it into clinical practice. A pilot study.

What is the impact of a digital resource such as the Montreal Clinical Reasoning Process MOOC for third year students at CIDO?

Authors
Erwann JACQUOT, D.O. (erwann.jacquot@cido.fr), Edith PORTEJOIE, D.O, Xavier MATHIAN, D.O, Martin GARET, PhD.

Affiliations
CIDO Osteopathic Education Research Department

Introduction

The thinking and decision-making processes that allow a clinician to propose a treatment in a specific context of health problem solving is a major issue in osteopathic education. This is clinical reasoning.
It is necessary to be able to better identify and categorize this process in order to better communicate on the different stages of understanding and managing a patient. Describing and explaining one's practice is one of the objectives of the reflective practitioners that we wish to train. The main objective of this pilot study is to evaluate the effectiveness of this learning and implementation process within clinical settings.
Therefore we observed how 3rd year students appropriated themselves a model of the clinical reasoning process. Which elements seemed to be favorable to the transposition of learning on a digital platform such as a MOOC to the implementation in their clinical practice?

Methodology

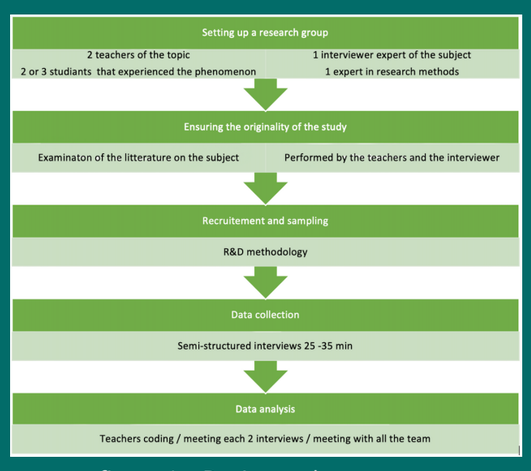

figure 1 : Design and process

A qualitative study was conducted with individual semi-structured interviews with 3rd year students at the. A thematic content analysis was conducted using an inductive analytical approach.
A blinded cross-coding was carried out on the verbatim selected by each researcher.
The interview guide was tested with a colleague in advance and four questions were selected following a situation or evocation concerning a learning moment

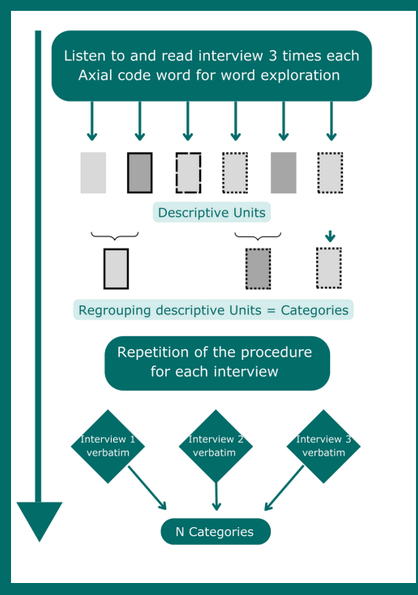

figure 2 : Procedure for each researcher

Results

Six interviews were conducted until the data were saturated. All students reported a great interest in the metacognitive process, especially regarding their ability to situate themselves within their clinical reasoning. A great majority reported an increase in self-confidence, a feeling or reassurance and security through a structured specific methodological framework. All of them also agreed on a comfortable individual learning process pace. The MOOC taught clinical reasoning appears also easy to transfer within clinical settings.

Interview	gender	time	words
:1	F	29"19	5440
:2	M	30"37	5734
:3	F	22"40	3879
:4	M	23"01	4448
:5	M	32"23	5523
:6	F	20"03	3924

figure 3 : interviews results

SCAN ME

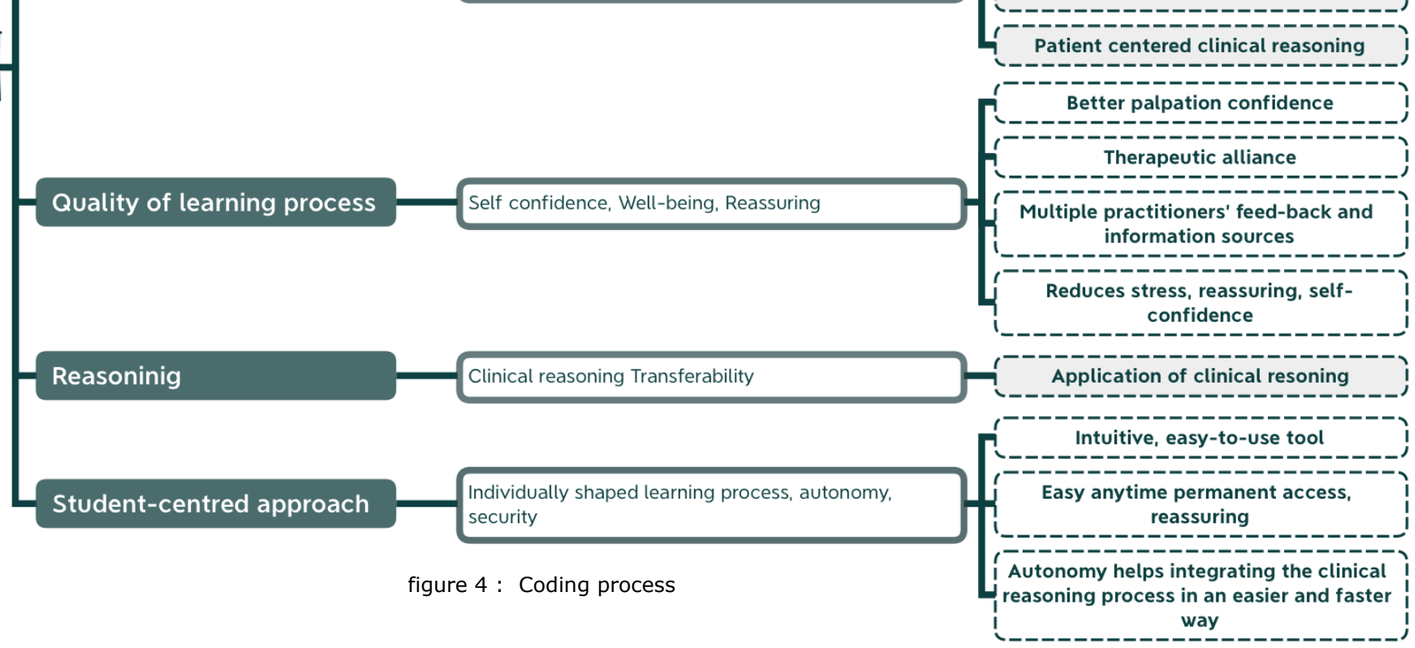

figure 4 : Coding process

Limits / discussion

This study was conducted by teachers who were not experts in research methodology.
We carried out a co-coding by reading, without using dedicated software or digital tools.
There is student satisfaction with the transferability of clinical reasoning shared by several professions. It would be interesting to evaluate the effects of an earlier implementation in the students' curriculum.

Conclusion

Regarding all the positive aspects reported by the students, it would be interesting to develop the use of this learning/teaching process to other academic years from the beginning of their integration in the pedagogical osteopathic clinic.

Related Literature

1. Charlin, B., Lubarsky, S., Millette, B., Crevier, F., Aud?tat, M.-C., Charbonneau, A., Caire Fon, N., Hoff, L. et Bourdy, C. (2012). Clinical reasoning processes: unravelling complexity through graphical representation: Clinical reasoning: graphical representation. Medical Education, 46(5), 454-463. https://doi.org/10.1111/j.1365-2923.2012.04242.x
2. Jouquan, J. et Bail, P. (2003). A quoi s'engage-t-on en basculant du paradigme d'enseignement vers le paradigme d'apprentissage ? Pédagogie Médicale, 4(3), 163-175. https://doi.org/10.1051/pmed:2003006
3. Sibeoni, J., Verneuil, L., Manolios, E. et Révah-Levy, A. (2020). A specific method for qualitative medical research: the IPSE (Inductive Process to analyze the Structure of lived Experience) approach. BMC Medical Research Methodology, 20(1), 216. https://doi.org/10.1186/s12874-020-01099-4