Mentor regulation activity towards physiotherapist students following a learning clinical situation.

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ABSTRACT: This presentation aims to study pedagogical practices in a training course context and more specifically the context of physiotherapists' initial training. It focuses on regulation activity towards physiotherapist students in the third year of training. Good recommended mentoring practices seem to be based on both the quality of interaction between mentor and trainee and the practice of analysis of their own professional activity, which requires student's reasoning and phrasing of it (Allal 2010; 2007; Jorro & al, 2016; Jorro & Mercier-Brunel, 2011; Clot, 2006; Paquay, 2010;). What are the current physiotherapist tutor's regulations practices whose purpose is to train "an autonomous and reflexive practitioner"?

The research qualitative methodology used consists of video regulation interviews plus self-confrontation interviews. The objective is to know and understand regulation process.

After presenting the theoretical framework of the study, the qualitative research methodology will be briefly described. We will report the first results, thus contributing to the discussion of mentor regulation and regulation process.

KEYWORDS: mentor, physiotherapist, regulation of learning

Introduction

The thesis project aims to study physiotherapists mentor's pedagogical practices in the context of physiotherapists' initial training. A new reference-training program was published in September 2015 by the French Ministry of Social Affairs, Health and Women's Rights which makes it an official university training. This evolution corresponds to what is recommended in the Bologna report (1999, Conseil de l'Europe) for the creation of a European Higher Education area.

Moreover, this professional training focuses on a skill-based approach. Professional skills can be acquired mainly through professional activity (Tardif, 2006; Scallon, 2007; Le Boterf, 2011).

From now on, the mentor plays an admitted leading part in students' acquisition of knowledge and skills in the course of their training in keeping with the aim to train "an autonomous and reflexive practitioner" having mastered all the skills planned by this new text ruling the profession.

Students' theoretical training is punctuated by professional training – also referred to as clinical training for health professional – which contributes to the development of the future practitioners' skills and professional identity.

The first question which motivated the research was: what are the current assessment practices among physiotherapists' mentors?

Good recommended mentoring practices seem to be based on both the quality of interaction between mentor and trainee and the practice of analysis of their own professional activity, which requires student's reasoning and phrasing of it (Allal 2010; 2007; Jorro & al, 2016; Jorro & Mercier-Brunel, 2011; Clot, 2006; Paquay, 2010;). What are the physiotherapist mentor's current regulation practices whose purpose is to train "an autonomous and reflexive practitioner"?

Regarding the training of physiotherapists, few studies exist about physiotherapist mentor regulation practices.

The purpose of the research is to study mentor regulation activity analysis following in-situ clinical learning. This research project is interested in the activity of physiotherapists' mentors in relation to students, in the context of mentor regulation and exchange between tutor and tutee following a clinical learning situation. In the context of clinical practice, what are the pedagogical mentoring practices implemented for physiotherapists in a clinical situation management to assist students in their learning process? What are the regulation practices among physiotherapists' mentors to guide students through their professional learning? What type of feedbacks does the mentor use to assist students in their learning process? What does the tutor favour in terms of form and substances or content?

The results of this study may contribute to know and understand the mentoring regulation process of professional practices in particular as regards the initial training of physiotherapists.

Context

Physiotherapists initial training's aims

The training of physiotherapists is a sandwich-course training. Its aim is to train autonomous, responsible and reflexive practitioners.

Physiotherapist care requires a medical doctor prescription. There is no access direct in France. The physiotherapist's scope of intervention, is large: rehabilitation, prevention, social and professional reintegration, educational therapy, and care.

These activities contribute to the promotion of health, prevention, screening, diagnostic, treatment and research. The therapeutic approach consists of different sequences including: clinical assessment, physiotherapist's diagnostic, therapy project development, and treatment (Gedda, 2014; Gedda, 2001). The physiotherapist's aim is also to make the patient responsible and autonomous.

The physiotherapist takes care of the patient and considers the patient's psychological, social and cultural context in a global approach (Ministère des Affaires Sociales, de la Santé et des Droits des Femmes, 2015).

Seven roles have been identified in the physiotherapist's occupation: expert, practitioner, health educator, communicator, trainer, supervisor and manager (Gatto, Roquet, & Vincent, 2015). The physiotherapist is not a mere doctor's operator, he/she is a treatment developer with complex skills enabling to guide, raise, and take care of.

The physiotherapist operates in an environment that promotes healthcare cost control, and in a context of assessment of professional practices and evidence-based practices (François, Boussat, Guyomard & Seigneurin, 2015; Massiot, 2005; Parent et al, 2013; Gedda, 2017). Health problems and patient-physiotherapist relationships are changing. The patient becomes an actor of his/her own health, he/she co-decides and co-assesses, he/she is a partner (Gatto, 2006; Pelaccia, 2016). There is also an injunction to lifelong learning for healthcare professionals (Coulet, 2016). The new training referential and the specific context of health professionals contribute to the evolution of the practices of physiotherapists. It entails a continuous adjustment of their practises.

The physiotherapist's tutor

The tutor's role is to assist the trainee in his/her professional skills acquisition ant to assess them. The mentor implements the assessment process and helps the student in his/her self-assessment process (*Ministère des Affaires Sociales, de la Santé et des Droits des Femme, 2015*). He/she uses regulation of learning in order to facilitate professional practice learning.

The enlargement of the physiotherapist's skills added to these new pedagogical practices have consequences as regards the change of position of all the actors involved in the process of physiotherapist training. Reflexive practice, activity of one's analysis, self-assessment, formative assessment and regulation become the guiding principles of physiotherapist training. The objective is to develop the student's responsibility and his/her autonomy (*Ministère des Affaires Sociales, de la Santé et des Droits des Femmes, 2015*).

The training of physiotherapist tutors is recommended but not compulsory. The professionalization of the tutors implies acquiring social, relational, pedagogical, reflexive and organisational skills (HAS, 2014).

For some authors (Plazolles, 2016), most physiotherapist tutors have not yet had the opportunity to access pedagogical training, therefore many of them have limited knowledge about pedagogy according to this physiotherapist. They have no formal training and they learn "on the job", by experiencing.

Physiotherapist tutors currently are physiotherapists in active employment. They work in traditional and independent establishments. They do not have extra time or have not identified specific time to manage tutees, they tutor their trainees during their physiotherapist activity practice.

There are currently roughly as many women as men working in the field of physiotherapy (49% female and 51% male: CNOMK, 2017, 2016, 2011): the profession of physiotherapist is increasingly opening up to women.

French physiotherapist practices are varied. Some of them are specialised, others have some diversified acitivity (Matharan, Micheau & Rigal, 2009). Their work organisation also differs: practices are varied among physiotherapists.

Theoretical framework and research updated aims

Mentoring

The tutor's role is to help, guide, introduce to physiotherapist work and participate in the student socialization process (Filliettaz, Rémery & Trébert, 2014). Some authors identify several duties for tutors: host, support, assessment, transmission, and communication (Adam & Bayle, 2012). They provide psychological and pedagogical assistance (Paul, 2003, 2002).

Some authors consider the main roles are to assist the trainee in the acquisition and assessment of skills (Pelpel, 1995; Benoit, 2011; Berrahou & Roumanet, 2013). Other authors emphasize that the tutee must be active. The mentor guides, adapts the level of the task, motivates, provides arguments (Kunégel, 2011; Orly Louis, 2009; Bruner, 1983). He/she favorises the development of understanding. He/she makes sense without substiting himself/herself to the tutee's reasoning (Mahlaoui & Lorent, 2016). He initiates the tutee into the real activity of the occupation and its further evolution (Bilett, 2011; ChampyRamoussenard, 2005; Oursel, 2016).

The tutor's task is to involve the tutee in a reflexive process and in the analysis of his/her practise. The tutee assesses himself/herself and makes the situations encountered explicit. He/she explains and increases his/her clinical reasoning (HAS, 2014; Brignon et Ravestein, 2015). The tutor supports the reflection and the logical interlink (Becerril, Ortega, Calmettes, Fraysse, & Lagarrigue, 2009). For that purpose, the tutor questions (Mayen, 2000) and interacts with the tutee in order to trigger the regulation process (Allal,2007, 2010; Gettliffe & Toffoli, 2011; Guichon & Drissi, 2008).

We note the tutor's ambiguous position which oscillates between help and assessment, guidance and transmission, formative and normative approaches.

The mentor solicits students' analysis of their own professional activity. For that, tutors have to manage students' emotions to maintain a climate of dialogue.

The research question developed to become: what are the regulation practices among physiotherapists' mentors to guide students through their professional learning?

Regulation of learning as a conceptual framework

The regulation of learning is a concept studied by Allal (2007, 2010). Allal explains that regulation is a gesture to facilitate one's activity analysis in order to perform one's practice. It differs from regularisation which implies a standard, not a personal approach or process. The target of the regulation is to help students to progress in their reflection and practice. It is related to formative assessment and it can facilitate and guide self-regulation. This approach focuses learners'needs and takes into account cognitive, cultural, social dimensions of the individual. The objective is to confirm, redirect the action, redefine the aim in an interactive framework. The goal of the regulation is for the trainee to access a new way of looking at things (Paquay, 2010; Jorro & Mercier-Brunel, 2011). The formative intent of the mentor must be dominant. Allal underlines the psycho-affective aspect of mentoring related to the tutor's assessment task (Allal, 2007, 2010).

Many authors (Crahay, 2007; Jorro & Mercier-Brunel, 2011; Jorro, 2009, 2006, 2002; Schneuwly & Dolz, 2009; Sensevy & Mercier, 2007) consider that students' learning is linked to the quality and efficient delivery of feedback during their exchanges with their tutors. When feedback helps a student to understand his or her errors, to learn from his or her mistakes, and glimpse a new way of looking at things, it can facilitate student self-regulation (Paquay, 2010; Jorro & Mercier-Brunel, 2011).

Allal (2007, 2010) identifies two categories of mental processes: the first one is the metacognition process (the questioning related to practice) and the second one is the socio-cognition process (the questioning related to the reasons inherent to practice).

The tutor who regulates the tutee uses some feedback to communicate with him/her. There are many feedback categorizations: positive or negative; general or specific to the situation; linguistic or corporeal; those with reflexive or judgement criteria; qualitative or quantitative; those which manage cognitive or emotional aspects; those which are related to the person or to his/her production; simple or complex; externally assessment or use self-assessment. They are also ranked by their objectives: guidance, control, adjustment, or task reorientation (Allal & Lopez, 2007) or by their form: prescriptive or not, depending on what element they have an effect. They are also categorized with a specific classification assessment gesture (Georges & Pansu, 2011; Jorro & Mercier-Brunel, 2011).

Trohel and Saury (2009) study mentoring interactions. They highlight several types of interactions between the tutor and the tutee: informative sequences; evaluative sequences; interactional sequences and contractual sequences.

Resarch updated aims

The updated research questions are:

- What are the types of regulation feedback used by mentors in order to assess a student's professional skills and help him to acquire the necessary skills?
- What are the elements regulated by the mentor, and in what form?

The purpose of this research is the substance and the form of the regulation used by the mentor for tutorial relationships following initial clinical practice, or even the formative goals of this mentoring.

The aim of this thesis is to improve knowledge of physiotherapists mentoring regulation practises and more understand this regulation process. The goal is to study the form and the

substance of the physiotherapists mentoring regulation. Therefore, we explore the topics brought up during the exchanges between tutor and tutee.

We look at the effective realization of the regulation. We also seek to identify the motivation, dilemma, difficulties of the tutor and of the tutee during regulation interviews.

Methodology

Qualitative research methodology

We studied the regulation practice of four tutors who work in traditional and independent establishments. To carry out our survey, we chose four mentors, two of whom are salaried workers and two who are self-employed. It concerns students in the third year of training who do two training courses during the year. The study lasted from September 2018 to April 2018.

We will visit the mentor four times during training course(s) with the aim of producing sixteen video regulation interviews, sixteen self-autoconfrontation interviews with the mentor (four per mentor) and as many with the students (two per student, one in the middle of the training course and one at the end).

Before the regulation interviews, we question mentor and student about their age, completed training courses, career path and family situation. We also ask the mentor about their professional and mentoring experience, their job and training as a tutor, and the circumstances of the clinical situation that he regulates with the student (themes, the reason for this choice, the context, instructions and recommendations given), - thus looking at all the information available.

At first, the tutor prepares a clinical learning situation with a patient. He/she gives instructions to the tutee who must come up with a proposal to take care of the patient. Afterwards we film the regulation interviews between the tutor and the tutee about this clinical learning situation. We follow their evolution in time studying four regulation interviews per tutor (16 all in all) after a learning clinical situation. With this purpose in mind, the methodological approach also to be used is self-confrontation interviews. The survey is completed by 16 self-confrontation interviews with tutors and 16 self-confrontation interviews with tutees.

This method which both combines videos regulation interviews and video self-confrontation interviews enables us to study interactions between mentor and student as well as informing us about mentoring pedagogical practices in the post clinical context. Self-confrontation interviews method allows us to understand the reasons which explains the tutor and tutee's positioning during the interviews. It allows to delve into the tutor and tutee dilemma relative to regulation interviews.

Self-confrontation interviews allow us to show the mentor his activity through video re-runs. This film is commented on by the mentor who explains what he does and his motives, his intentions, his reasoning relative to his choice (knowledge, previous experience…) and his dilemma. The tutor's freedom of speech is very important in order that he/she will tell us what makes sense for him (Pastré, 2007; Barges et Bouthry, 2014; Champy-Remoussenard, 2005).

Analysis of his/her activity is a learning tool as much as the action itself (Pastré, 2007; Carré, & Caspar, 2011; Bonnemain, Perrot, & Kostulski, 2015).

The mentor speaks of what he could have done but didn't, what he would like to do or what he wanted to do but he could not do, what should be done, what is to be redone and even what he unintentionally did. Clot (2001) and Goigoux (2007) call that real activity in opposition to accomplished activity. It also addresses values, what is considered legitimate, and what is well regarded in the physiotherapy profession.

Attention is paid to the mentor's perceptions, to any evidence of astonishment or distress (Clot & Faita, 2000), and to difficulties, whether internal conflicts or preoccupations (Leblanc, Ria, Dieumegard, Serres & Durand, 2008).

We created a means of interpreting regulation thanks to a grid which is composed of several items regarding the intents of regulation: knowledge (intent of knowledge regulation), activity (intent of activity regulation), psycho-affective (intent of psycho-affective regulation). On top of these direct intents, indirect ones are also identified: metacognitive, socio-cognitive and totally open.

We categorise feedbacks along three types: informative, evaluative or reflexive. We thus study mentor practice regulation and we also examine regulation signs in tutee's speeches which correspond to the regulation intents. The second analysis grid of self-confrontation interviews is based on: motivation, dilemma and difficulties about regulation interviews.

Results and discussion

We have not finished transcribing all of the corpus, so we have not yet finished the processing of the data collected during the survey.

The mentor considers the clinical learning situation as a tool for professional skills assessment as well as a tool which contributes to their acquisition.

We note tutors often take up much more speaking time than tutees. The trainee often shows his/her agreement with the tutor's comments without further substantiating his/her point. When this is the case, we cannot conclude that the trainee's regulation is effective.

During regulation interviews, the mentor does not systematically search for student reasoning and activity analysis. He/she sometimes uses self-assessment, however, the questioning, reflexive practice and metacognition process are not frequently implemented by tutors.

Our first results show that the mentor favours informative feedbacks. Reflexive feedbacks are the least used by the tutors. Psychoaffective regulations are frequent. It appears that regulation focuses as much on efficient relationship activity as on the physical aspect of physiotherapist practice itself.

The topics most often discussed within the framework of regulation interviews are : the structure of the student's oral presentation and the potential ways for improvement and enhancement; the confirmation of the adequacy of the trainee's rehabilitation practices; the quality of interaction between the patient and the physiotherapist (the accuracy of the instructions and guidance, appropriate feedbacks, the patient's confidence-building); the patient's involvement, self-determination, and empowerment (the patient's project, the patient's understanding of the rehabilitation objectives to be achieved); the patient's education and self-rehabilitation; the physiotherapist's practical knowhow in rehabilitation of gesture (the precisions of the physiotherapist's physical stimulation, the correcting of the patient's gesture, the patient's safety); a global and individualized approach with an appropriate rehabilitation of the patient (the consideration of the patient's singular problematic); the priorization of therapeutic objectives, the pooling of relevant information, the relevance of arguments expounded); the factors influencing the physiotherapist's

practices which are very diverse (evidence based practice, theoretical models, time management, the organisation of the workplace).

We have not yet studied self-confrontation interviews. We can only tell trainees show a real understanding of the tutor's remarks. We will examine the role of self-confrontation interviews as a tool for stimulating reflection about mentoring practice for the tutor and about physiotherapist professional practice for the tutee.

This study is carried out in a specific context.

The main limitations of this survey is the specific regulation context. There are several different approaches to study regulation practices. Indeed, regulation situations which are surveyed are carried out with one mentor and not several, without student peer input. Moreover, the studied regulation situation takes place after the clinical situation and not during the clinical situation.

It does provide suggestions for further research. It might be interesting to undertake studies related to physiotherapists' mentor regulation practices while the trainee implements a patient's care.

Conclusion

This PhD project aims at mentoring pedagogical practices in a training course context. This study concerns physiotherapist initial training. This research focuses on physiotherapist mentors regulation practice towards tutee and also studies exchanges between tutor and tutee after a clinical learning situation.

The interest of this methodology used is twofold: one the one hand we study the interactions between the tutor and the trainees, on the over hand, we gather informations about the mentoring pedagogical practices in a context of management after onstage professional activity.

Mentors make little use of the practice of analysis of their own professional activity, which would allow them to understand the reasons of the trainee's choice related to their practice. Mentors do not frequently search for the tutee's expression of the reasoning related to their practice. The survey results indicate that mentors have a real desire to transfer knowledge and favour sharing their own practice and reasoning.

This research allows us to take stock of the current state of regulation practices among physiotherapists'mentors and this stocktaking could form the basis for the development of a mentor training course.

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