What does it mean to be a good teacher and clinical supervisor in medical education?

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Abstract The aim of this study was to describe the different ways medical teachers understand what constitutes a good teacher and a good clinical supervisor and what similarities and differences they report between them. Data was gathered through interviews with 39 undergraduate teachers at a medical university. The transcripts were analysed using a phenomenographic approach. Three categories regarding what it means to be a good teacher and clinical supervisor respectively were identified. Similarities between the two hierarchies were seen with the most inclusive categories of understanding what it means to be a good teacher or supervisor focuses on students' learning or growth. In the third category a good teacher and supervisor is seen as someone who conveys knowledge or shows how things are done. However, the role of being a clinical supervisor was perceived as containing a clearer focus on professional development and role modelling than the teacher role did. This is shown in the middle category where a good clinical supervisor is understood as a role model and someone who shares what it is like to be a doctor. The middle category of understanding what it means to be a good teacher instead focussing on the teacher as someone who responds to students' content requests in a partially student-centred perspective. In comparing the ways individual respondents understood the two roles, this study also implies that teachers appear to compartmentalise their roles as teachers and clinical supervisors respectively.

Keywords Clinical supervisor · Medical teacher · Phenomenography · Student-centred · Teacher-centred · Undergraduate · Ways of understanding teaching

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Introduction

Teaching, patient care and research are often considered to be the cornerstones of professional life in medicine and the allied health professions. However, the role of clinician or researcher often takes priority over teaching (Blatt and Greenberg 2007; MacDougall and Drummond 2005; Stark 2003; Taylor et al. 2007). Nevertheless, the teaching role is a complex one as it involves being an information provider, role model, facilitator, assessor, planner, as well as a resource developer (Harden and Crosby 2000). Clinical supervision is a central and similarly complex task for many medical teachers (Nilsson et al. 2010; Taylor et al. 2007). This type of teaching is characterised by the fact that it is often unplanned or opportunistic due to the unpredictable nature of medical cases. When introducing students to clinical practice, supervisors may see themselves as guides, coaches, mentors or role models (Mann et al. 2001) and their identity as supervisors has been found to be influenced by their image of themselves as teachers, their familiarity with adult learning principles, the perceived benefits and drawbacks of teaching, and humanitarianism (Stone et al. 2002). Excellence as a clinician has been reported by some as necessary for excellence in teaching (Stone et al. 2002). In other studies the role model function of the clinical supervisor is emphasised (Parsell and Bligh 2001; Prideaux et al. 2000). Others argue, however, that even if the skills, attitudes and behaviours needed for teaching and clinical work are related, they are not necessarily identical, and to become an effective teacher, additional goals, directions, attitudes and behaviours are needed (Ursano et al. 2007).

Studies which focus on residents' or faculty's perceptions of the ideal clinical teacher highlight characteristics such as enthusiasm, inspiration, commitment, support, being a role model, a clear and organised presenter, active researcher, clinically competent, and passionate about teaching (Boor et al. 2008; Buchel and Edwards 2005; Busari et al. 2002; Duvivier et al. 2009; Irby 1978; Knight and Bligh 2006). In a recent literature review (Sutkin et al. 2008), five main themes of characteristics of good clinical teaching were described as (1) medical/clinical knowledge, (2) clinical skills, (3) positive relationships with students in a supportive learning environment, (4) communication skills and (5) enthusiasm. Medical teachers are often unaware of what shapes and gives meaning to their practice. Studies which address medical teachers' ways of understanding teaching and how they think about their educational roles are rare (Mann et al. 2001; Sutkin et al. 2008; Taylor et al. 2007; Williams and Klamen 2006). However, when broadening the perspective to higher education in general, more empirical studies are available.

A number of studies show that the differences in understanding teaching in higher education appear to range from a strong control on the part of the teacher to a strong emphasis on students' influence over form and content. These differences can be described as teacher-centred or student-centred, where the focus lies on either the teacher and his/her strategies or the students and their learning (Kember and Kwan 2000; Postareff and Lindblom-Ylänne 2008; Samuelovicz and Bain 2001; Trigwell and Prosser 1996; Wood 2000; Åkerlind 2004). In the literature review, Kember (1997) similarly found these two orientations, but with a linking category labelled student—teacher interaction. Pratt's (1998) findings, however do not match this range of orientations. He presents five perspectives on good teaching: The *transmission* perspective is characterised as the notion that good teaching is equal to a deep engagement with the content of the teaching. The *apprenticeship* notion brings with it an ambition of enculturating students into a set of social norms and ways of working. The *developmental* perspective is an approach to teaching which entails planning and implementing teaching according to students' current

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knowledge with a focus on helping learners develop their abilities in critical thinking. This requires that the teacher knows how learners think and reason about content. Teachers holding a *nurturing* perspective emphasise creating a climate characterised by safety and support which minimises feelings of failure among the students. Finally, the *social reform* perspective provides a society oriented perspective where the function of teaching is to reform practice and/or society. The focus is therefore on the collective rather than the individual. Students are encouraged to take a critical stance to empower themselves to take social action.

In a study set in a medical school, Williams and Klamen (2006) found three conceptions of teaching among the teachers. Similar to previous studies in higher education these were described as being student-oriented, content-oriented, and performance-oriented where the content-oriented category can be described as teacher-focused. Williams and Klamen found links between their three conceptions and Pratt's (1998) nurturing, transmission, and apprenticeship perspectives. Taylor et al. (2007) focused on teaching in a clinical setting and found support for Pratt's (1998) developmental, apprenticeship, and transmission orientations. However, in many of these previous studies in higher education, no distinction is made between being a teacher or a clinical supervisor and in some studies the two roles are combined.

It is hard to achieve certainty regarding what influences student learning (Mohanna et al. 2007). However, teachers' ways of understanding teaching have been found to influence their approach to teaching (Kember and Kwan 2000; Trigwell and Prosser 1996). The teacher's approach may also be related to students' approaches to learning as a teacher-centred teaching approach has been associated with reproduction and a surface approach to learning whilst a student-centred teaching approach may instead support understanding and meaning making and thereby better learning outcomes (Kember 1997; Martin et al. 2000; Trigwell et al. 1999). Going back to clinical supervision Nilsson et al. (2010) explored how this was carried out in authentic situations and identified seven pedagogical strategies. These strategies were linked to ways of understanding teaching and learning as student- or teacher- focused and each of these teaching perspectives bear consequences on the teacher's focus in clinical teaching (Nilsson et al. 2010).

An increased understanding of the phenomena of teaching and clinical supervision is needed when training new teachers and supervisors and as common ground when discussing teaching and learning (Mann et al. 2001; Taylor et al. 2007; Williams and Klamen 2006). Furthermore, it is commonly suggested today that focusing on ways to develop our understanding of teaching is also the most effective way to approach teaching development (Ho et al. 2001; Kember and Kwan 2000; Trigwell and Prosser 1996; Åkerlind 2008). An awareness of one's own approach has been found essential in improving practices (Postareff et al. 2007) and similarly an awareness of what activities that are involved in teaching may be useful to help make explicit the many activities that do not involve direct contact with students and are therefore often forgotten (Ross and Stenfors-Hayes 2008).

Most studies so far within this field have focused on teaching per se, whilst few focus on *being* a teacher. By focusing on teaching only, important aspects of being a teacher have therefore gone unreported (Åkerlind 2004). The aim of this study is to explore the different ways of how undergraduate teachers at a medical university understand what constitutes being a good teacher and a good clinical supervisor and how they relate the two roles. Many of the studies in this field are successfully based on a phenomenographic approach (see for example (Trigwell and Prosser 1996; Wood 2000; Åkerlind 2004).

Respondents, method of data collection and analysis

This study was conducted at a research intense medical university. The university offers over 20 undergraduate medical and health care programmes, several master programmes as well as an extensive postgraduate education. Teaching takes place on campus or at associated teaching hospitals. A mixed group of respondents were chosen to ensure variety and breadth in the material so that variations in ways of experiencing the phenomena under study could be assumed. The respondents were therefore recruited from different contexts to achieve maximum-variation sampling (Kuper et al. 2008). Furthermore, some of the respondents had extended experience of teaching and clinical supervision whilst others were newer in their role. Their experience ranged from a few years of irregular teaching and supervision to up to 20 years of weekly teaching. Some had participated in staff development training of different kinds and others had not. Some of the participants had been rewarded for their skills in supervision and teaching whilst others were not regularly praised for their skills. Participation in the study (i.e. to be interviewed) was voluntary. Ethical approval was sought and ethical guidelines were followed. The respondents consisted of 19 medical doctors, 11 dentists, eight basic science teachers and one nurse.

Empirical data was gathered through semi-structured interviews, which means that the interview guide was comprised of a relatively small number of questions followed by different kinds of preferably content neutral probing to capture the respondents' way of experiencing the phenomena under study. The key question was: *What does it mean to be a good teacher*? Teachers who also were clinical supervisors were also asked: *What does it mean to be a good clinical supervisor*? In addition, these respondents were asked to elaborate on similarities and/or differences between the two roles. The interviews were transcribed *in extenso* to constitute the final material for analysis.

For this study, and at the university where the study took place, clinical supervision was defined as teaching and supervision in a clinical setting where the doctor/dentist meets and treats patients together with one or a small number of students. 'Traditional' teaching in this study refers to teaching in lectures or seminars, usually with no patients present and in a context organised for teaching.

Phenomenography is a qualitative and empirical research approach designed to answer certain questions about how people make sense of their experiences and the world around them. The most essential feature of phenomenography is the descriptions of the different ways in which people experience the world around them. Using such an approach, this study is based on the assumption of an ontology emphasising human thinking as a manworld relationship (Marton and Booth 1998) i.e. meaning is subjective and constituted by the relationship between an experiencing person and the world. The different ways of experiencing the phenomena of teaching and clinical supervision is the current object of research. These were described and analysed with regard to qualities of their content (Marton 1981; Marton and Booth 1998).

The outcome of a phenomenographic study is categories which describe respondents' differences in how they understand the research object. The different ways of understanding represent different breadths of awareness of teaching and supervision and are thereby hierarchically inclusive in their relation. To identify a variety of understandings, a wide selection of respondents is advisable, therefore this study included teachers from various contexts and with varying training and experience. In the analysis all transcripts are treated as a whole rather than as 39 different sets of data. The descriptions are therefore related to the group rather than the individual respondents (Marton and Booth 1998). However, after the main analysis, the responses were analysed on an individual level as

Familiarisation	Reading all transcripts	
Condensation	Identifying meaning units for purposes of further scrutiny	
Comparison	Comparing units with regard to similarities and differences	
Grouping	Allocating answers expressing similar ways of understanding the phenomenon in question to the same group	
Articulating	Capturing the essential meaning of each category	
Labelling	Expressing the core meaning of the category	
	Step 3-6 are repeated in an iterative procedure to make sure that the similarities within and differences between categories are discerned and formulated in a distinct way	
Contrasting	Comparison of categories with regard to similarities and differences	

 Table 1
 Seven steps of data analysis

well. The analysis followed the procedure proposed by Dahlgren and Fallsberg (1991) which comprises seven steps as described in Table 1. In reality, however, there is a constant interplay between the steps.

Ten interviews were analysed by two of the authors independently and the findings discussed before the remaining data was analysed by the first author. An analysis of 19 of the included interviews has previously been published with a focus on other aspects of the data (Stenfors-Hayes et al. 2010; Weurlander and Stenfors-Hayes 2008).

Findings

In this section, the categories of description of what it means to be a good teacher and clinical supervisor are presented. The different categories are related and can be described in terms of the number of aspects of 'being a good teacher' and clinical supervisor considered. The section ends with an analysis of the relationship between the ways of understanding held by individual respondents in regards to teaching and clinical supervision, respectively.

Being a good teacher in medical education

A good teacher focuses on students' learning

This category includes a focus on the student and his/her questions and needs, and the teacher lets the student explore the subject in his/her own way. The respondents emphasised active participation not only in answering questions, but also in contributing and asking questions themselves. The focus is on 'the bigger picture' and how that can be created. One respondent described this way of conceiving of good teaching by referring to the Socratic dialogue, where similarities are made between being a teacher and a midwife in terms of helping students deliver their own ideas. Even though teachers expressing this way of understanding good teaching do not necessarily assume that all knowledge is innate in humans, they nevertheless prefer to let the learner have a first try at dealing with the learning task. The role of the teacher is rather one of supporting students' learning efforts and to pose critical questions, as opposed to providing the answers. This way of conceiving of a good teacher is illustrated by the following quotations:

I think that I should point out the direction, but it is the student who should walk the road.

Participation (for the students) is important, that you feel part of the teaching session, you are not just a spectator, but a participator, you contribute to the quality of the session, so both the teacher and the students are working. I find that important.

A good teacher responds to students' content requests

This category may be described as a kind of student-centred approach, however, it is characterised by some important limitations. The teacher opens a dialogue with the students in order to get guidance about what parts of the syllabus to emphasise. This openness, however, does not include the method of teaching, or the degree of student involvement, but rather the choice of issues to give priority to. The teacher maintains his/her power over how to deal with the content. Similarly, in the second quotation below, it is the teacher who interprets how well the students understand, and adapts his/her teaching accordingly. He/ she is flexible regarding the way the material is presented or what is included, but this is always based on his/her own assumptions rather than the students' actual needs. The teacher is responsible for observing the students' understanding and adjusting the teaching accordingly. The whole initiative in the teaching situation rests with the teacher.

I think you should be rather open-minded and listen to what level the students are on and what they want to know.

I have quite a lot of 'free time' in my teaching so that I can be flexible. If I notice that they don't understand, I want to be able to change my teaching plan quite radically so that they follow me.

In this category, the content as well as the outcomes are considered from a student rather than a teacher perspective, whereas the process still remains in the teacher's control. The students lack full influence regarding the process of learning compared to the first category as it is the teacher's assumption of how learning should proceed that has a decisive impact on the students' learning process.

A good teacher conveys knowledge

You need to have good clinical knowledge and skills. It is not enough to be an excellent teacher, first of all you need to know the content of what you are teaching.

The core feature of this category is that the teacher is seen as the person in charge of the students' learning. The teacher is the knowledgeable party of the two and the basic assumption is that knowledge as well as experience is to be transmitted from the teacher to the student. The corresponding role of the student may be assumed to be that of someone who is acquiring the knowledge provided by the teacher. This means that what is most important in being a good teacher is the knowledge and skills of the teacher in the topic he/ she is teaching. When elaborating on what is important to him/her as a teacher one respondent answered with the quotation below which highlights his/her role as a presenter which indicates that it is the performance of the teacher that matters. Another respondent explains that if he/she would try to become a better teacher he/she would focus on being more fun in his/her presentations as many students appreciate that.

It is always nice when they applaud after a lecture, well, it happens. Or that the grade is good on the course evaluation, and that they turn up, are there and don't fall asleep. Well, those are my criteria I suppose.

Engagement, by for example responding to questions from students, using modern technology to communicate, and updating the course material are also actions that may reflect being a good teacher according to this category. One step towards the more inclusive middle category of being a good teacher may be a change of focus from content to learning outcomes.

You need to change focus from content to learning outcomes...What they learn rather than what you teach. And that is so difficult. I don't think PowerPoint presentations are very good, still I use them a lot. That's what happens if you don't have full commitment; you don't have time.

Being a good clinical supervisor in medical education

Fifteen of the respondents (ten medical doctors and five dentists) were also asked to describe what it meant to be a good clinical supervisor.

A good clinical supervisor stimulates students' growth

I think a supervisor should be someone who stimulates development and growth. You are a facilitator and it is not necessarily about telling what is right and what is wrong, but about making the students think for themselves and make their own decisions.

Not just telling them what to do or checking up on them like a policeman. I want to give them feedback, get them to tell me what they plan to do and afterwards if they are happy with their work (a tooth filling). Have a dialogue with them and try and understand what level they are on.

This category has as its core that the students are strengthened and develop through positive feedback on their work. By spending more time on reflection and discussion after seeing a patient, rather than a strict focus on clinical skills, one supervisor thought he/she could help students to create a good platform where they feel secure in their professional ability, both mentally and with their clinical skills. The aim of teaching in this category is described as training good people rather than good professionals. This notion of a good supervisor seems to include a more inclusive picture on what teaching is about and what to focus on, whether it is becoming a better person or always keeping what is best for the patient in mind, rather than detailed knowledge or skills.

A good clinical supervisor shares what it is like to be a doctor

This way of conceiving what it is to be a good supervisor is characterised by comprising all aspects of the professional role as a doctor. These aspects range from basic science knowledge to social and emotional aspects of the profession.

Interest in the student, ability to listen to them, and that you want to share your experiences with them, whether it is medical knowledge or practical skills or

emotional or something else. Help them learn how to handle different situations, to listen to them and to be humble.

Help the students understand your work, bring him/her along. 'Look this is what I do now, this is what I do during my break (I get the lab results)'. Share with them how you need to think, if you don't want to end up with 150 lab results at the end of the day. Bring the students along in your thinking.

This understanding of supervision includes being a role model for the students. The role modeling may include everything from greeting the patient to the actual care. It also includes bringing the students along both in action and thought regarding all aspects of the profession.

A good clinical supervisor shows how things are done

You need to be short and concise with theory and for the practical tasks they need to get to try themselves. I know students appreciate that. But it may easily become too much for them so perhaps for each patient you can offer some kind of learning, for example 'three reasons to operate' instead of trying to explain and discuss...it is better to stick to the most important or common things, not all alternatives.

This understanding of teaching is based on an understanding of the teacher's role as one of explaining to the students what is going on, what they should do, and what they should learn. Information to the students may be provided as 'mini-lectures' and external changes in the clinical situation were suggested as motivating factors rather than any student activity or activity in the form of questioning or reflecting.

Summary of identified categories

In the present study, 39 teachers have been interviewed about their ways of understanding what it means to be a good teacher and 15 of them were also interviewed about what it means to be a good clinical supervisor. The identified categories are shown in Table 2.

Perceived differences between being a teacher and a clinical supervisor and relationships between ways of understanding the two roles

As a final analysis, the interview data from each of the 15 respondents who held both the role of clinical supervisor and teacher was revisited. Each of the 15 transcripts was mapped to the most representative category of being a teacher versus being a supervisor. This was done by coding all manuscripts according to the different way of understanding they best represented, using the criteria of position, frequency and emphasis (Sjöström and Dahlgren

	A good teacher	A good clinical supervisor
A	Focuses on students' learning	Stimulates students' growth
В	Responds to students' content requests	Shares what it is like to be a doctor
С	Conveys knowledge	Shows how things are done

 Table 2
 Identified outcome spaces of what it means to be a good teacher and what it means to be a good clinical supervisor

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2002). The patterns of combinations of ways of understanding being a good teacher and a good clinical supervisor that were identified showed that ways of understanding teaching and clinical supervision held by individual respondents varied. For example, a respondent matching the most developed understanding of being a teacher ('focuses on the students' learning') may not match the corresponding understanding of being a clinical supervisor ('stimulates students' growth'), but instead match the middle category of ways of understanding clinical supervision. However, the ways of understanding were only expanded with a maximum of one step of the hierarchy, meaning that no respondent ranged from the least developed understanding on clinical supervision to the most developed understanding of being a good teacher, or vice versa.

In the interviews, the respondents were also asked to elaborate on the differences between these two roles. For example, one respondent corresponding to the least developed understanding of both being a good teacher and a good clinical supervisor focused on the difference in teaching environment only, claiming that clinical supervision was easier since there are so many things going on around you. This shows his/her teacher- and information focus in both roles.

It is easier for clinical supervisors to teach since there is always something going on. Lectures are so boring that you need to come up with something to catch their attention. But in a clinical situation that is easy, you talk to patients, do examinations etc., there are always things going on.

Another respondent described the two roles quite differently in saying, as previously quoted, that clinical supervision is about facilitating development and growth whilst the starting point for being a good teacher is to be interesting to listen to.

Some respondents described the difference of the two roles in terms of the supervisor also being a role model. Being a good supervisor, thus, means to demonstrate the professional role in its entirety, whereas the role of a teacher is different from the role of a doctor/dentist because it only means showing a limited number of aspects of the professional role.

To be a clinical supervisor you also need to be a role model. If you are lecturing it is enough (enough or enough) with good teaching technique, even if you are a bad clinician you can still be a great lecturer, so that is a big difference.

Others emphasise the similarities by suggesting that even as a lecturer it is important to not only know 'what the book says', but also the clinical praxis. In both roles you need to have both the theoretical background and the clinical experience. Although some respondents thought that basic theoretical knowledge sometimes suffered from too much emphasis on practical problems and clinical realities.

Discussion and conclusions

As in most phenomenographic studies, the identified categories in this study are hierarchical, which is an important distinction compared to Pratt's previous findings (1998). This means that in this study the first category includes awareness of aspects of being a good teacher or clinical supervisor described in the preceding categories, but not vice versa. For example, in the first category, understanding of being a good teacher includes awareness of many aspects concerning the students as well as the teachers, whilst in the last category focus is on the teacher's perspective only. The commitment to students similarly decreases as a clinical supervisor from facilitating their learning and development to 'good people' as well as 'good professionals' to providing them with information and answering their questions during, for example, a presentation. Another example is the respondents' perceived aim of supervision which range from supporting students' personal and professional development, to providing information and clinical knowledge. The hierarchy in terms of inclusiveness can also be seen in the number of roles (Harden and Crosby 2000) and activities of being a teacher (Ross and Stenfors-Hayes 2008) that are mentioned by the respondents. Similarly, teachers linked to the first categories refer to a larger number of teaching activities than teachers in the latter ones.

Two of the three categories that were identified regarding being a good teacher are similar to the teacher vs. student-centred dichotomy often found in the literature. The middle category in the present study, a good teacher responds to students' content requests, however, has no direct counterpart in previous research. This way of conceiving of good teaching is interpreted as an adaption to the prevailing Zeitgeist about teaching, i.e. a kind of partial student-centred perspective on teaching among teachers who do not fully adopt this perspective on teaching. At first glance, sections of the transcripts representing this category may seem student-centred. It is only by looking closer that the subtle difference is noticed in the strict limitations of student-activity. This category may also be characteristic to contexts of undergraduate medical programmes and the like where the main problem students struggle with is the overwhelming quantity of learning content. Teachers who assist students in prioritising are presumably very much appreciated. The middle category identified by Kember (1997) allows for more student influence in terms of learning processes whilst the middle category as identified in this current study only allows for student influence regarding what content is included. A teaching session in this category bears similarities to the type of lecture that is sometimes used in problem based learning (an in-depth lecture) where the content of the lecture is based on students' written questions, but the process is controlled by the teacher (Fyrenius et al. 2005).

Many of the characteristics of being a good clinical supervisor that have been highlighted in previous studies were also found in this study, such as the importance of medical knowledge, enthusiasm, and supporting the students. The most advanced understanding of being a clinical supervisor identified in this study includes a focus on stimulating students' growth, personally as well as professionally. The middle category of clinical supervision (*'shares what it is like to be a doctor'*) reflects the apprenticeship perspective identified by Pratt (1998). One respondent can also be matched to Pratt's social reform perspective by saying that his/her aim with supervision is to help people in healthcare create better working conditions and "feel better," thus improving patient care. Similarities between this perspective and the underlying humanitarianism as identified by Stone et al. (2002) also exist. Compared to the least developed category of clinical supervision, the middle category focuses more on creating a good relationship with the students. The other three aspects of teacher identity (Stone et al. 2002) were also found in this study as components or themes in the categories.

A comparison of the most and least inclusive categories of being a good teacher and of being a good clinical supervisor shows that they are almost identical in terms of their focus on either the student or the teacher. Similarities between the two middle categories also exist, such as the focus on trying to help the students understand by providing support in their knowledge construction, even though the process is clearly guided by the teacher/ supervisor rather than by the student. In the middle categories, however, there is a difference among clinical supervisors who identify themselves as role models as well. This role has also been previously identified (Harden and Crosby 2000; Irby 1978; Mann et al.

2001; Parsell and Bligh 2001; Prideaux et al. 2000). As the categories are hierarchical, this difference between a teacher and a supervisor remains in the most inclusive category where clinical supervisors continue to emphasise students' personal and professional development whilst the corresponding teacher role is limited to supporting student learning. Even if the student focus is the same both for teachers and supervisors in the most developed understanding of the two roles, the role as a teacher is different from the role as a doctor/ dentist and only involves demonstrating a limited number of aspects of the professional role. This difference suggests that the two least developed understandings of being a teacher and a clinical supervisor can also be described as the two most similar in that they both focus on the teacher/supervisor as the expert who demonstrates and tells the students what they think they need to know and be able to do.

As well as identifying three understandings of good teaching and supervision, respectively, this study has also shown that teachers in medical education appear to compartmentalise their roles as teachers and clinical supervisors. A plausible reason for this may be the differences between the two contexts of teaching and supervision. The former involves bigger groups of students whereas the latter very often is a one-to-one relationship. Besides this, the content also varies between teaching and supervision. Clinical supervision often comprises situations where the teacher demonstrates a certain way of acting, after which the student is asked to try for him/herself. This chain of events is concluded by some kind of feedback from the teacher. This calls for a focus on what the student says and does, which is also consonant with a student-centred approach to supervision. Clinical supervision naturally involves the patient. The presence of a patient influences the way the supervisor experiences the situation. This study therefore supports the notion that ways of understanding a phenomena are dynamically shaped by the context and not necessarily transferred beyond it (Entwistle et al. 2000). Nevertheless, the respondents' ways of understanding what it means to be a good teacher and a good clinical supervisor only vary to a certain extent, or by a maximum of one step in the hierarchical categories.

This study contributes to the existing research in the field of understanding teaching by focusing on how *being* a teacher is understood within the context of a medical university where such studies are rare. This study also explores understandings of what it means to be a clinical supervisor and the link between the various ways of understanding this and of being a good teacher. In previous studies about being a teacher, these two roles are sometimes blurred. The three categories of understanding teaching and clinical supervision range from a teacher-focused to a more inclusive student-focused understanding. The main difference in the understanding of being a good teacher and clinical supervisor was found in the middle category where a good teacher was identified as a respondent to students' content requests, whilst a good clinical supervisor contained sharing the meaning of being a doctor. These two roles of teacher and supervisor have not previously been compared in a similar manner. Individual teacher's understanding of the two roles was found to be compartmentalized, meaning that a respondent with an understanding of being a good teacher found in to the most inclusive category did not necessarily have an understanding of being a good teacher found in to the most inclusive category did not necessarily have an understanding of being a clinical supervision.

The respondents of this study were comprised of a mixed group of medical teachers. Some of these had participated in teacher training 1 year prior to the interview, some had no such training, and others might have participated in similar training more recently. Participating in such training may have brought to the fore discussions on what being a good teacher and supervisor consists of, whilst others may never have consciously reflected upon these questions. The aim of a phenomenographic study is to capture the range of variation within a group. The focus on critical aspects of and structural relationships between different ways of understanding a phenomenon is seen as having a significant value in facilitating insights into teaching and learning (Åkerlind 2004). By using a mixed group of teachers, the possibility to capture the full outcome space or range of understandings increases as well as the transferability of the findings. However, not all health professions were represented in the sample and other factors such as contextual ones, also play a role in the outcome space found. Furthermore, all respondents taught at the same university.

The teachers' ways of experiencing being a teacher and a supervisor are reflections on both themselves as individuals and of the context in which they operate. Teaching has previously been found to operate on a mainly tacit level for clinical teachers (Taylor et al. 2007) and similarly, the way teaching is experienced is mainly unconscious by academics (Kember 1997). Mastering a repertoire of ways of understanding what constitutes good teaching and supervision may be an asset for teachers to help them reflect on their own performance, consider new directions for development, communicate with peers, and improve their practice. It may be assumed that teachers' understanding of good teaching guides the way they approach a teaching situation in practice (Nilsson et al. 2010). The variations in understanding teaching thus have a counterpart in the ways teaching practice may vary. An awareness of their own way of understanding teaching and the impact of context also provides the teacher with more control over their practice which means that they can more easily respond to the needs of students. An understanding of these categories is also a useful tool for educators and developers facilitating teacher development to help support students' learning.

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References

- Åkerlind, G. (2004). A new dimension to understanding university teaching. *Teaching in Higher Education*, 9(3), 363–375.
- Åkerlind, G. (2008). A phenomenographic approach to developing academics' understanding of the nature of teaching and learning. *Teaching in Higher Education*, 13(6), 633–644.
- Blatt, B., & Greenberg, L. (2007). A multi-level assessment of a program to teach medical students to teach. Advances in Health Sciences Education, 12, 7–18.
- Boor, K., Teunissen, P., Scherpbier, A., van der Vleuten, C., van de Lande, J., & Scheele, F. (2008). Residents' perceptions of the ideal clinical teacher: A qualitative study. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 140(2), 152–157.
- Buchel, T., & Edwards, F. (2005). Characteristics of effective clinical teachers. Family Medicine, 37(1), 30–35.
- Busari, J., Prince, K., Scherpbier, A., van der Vleuten, C., & Essed, G. (2002). How residents percieve their teaching role in the clinical setting: A qualitative study. *Medical Teacher*, 24(1), 57–61.
- Dahlgren, L. O., & Fallsberg, M. (1991). Phenomenography as a qualitative approach in social pharmacy research. Journal of Social and Administrative Pharmacy, 8(4), 150–156.
- Duvivier, R., van Dalen, J., van der Vleuten, C., & Scherpbier, A. (2009). Teacher perceptions of desired qualities, competencies and strategies for clinical skills teachers. *Medical Teacher*, 31, 634–641.
- Entwistle, N., Skinner, D., Entwistle, D., & Orr, S. (2000). Conceptions and beliefs about 'good teaching': An integration of contrasting research areas. *Higher Education Research and Development*, 19(1), 5–26.
- Fyrenius, A., Bergdahl, B., & Silén, C. (2005). Lectures in problem-based learning: Why, when and how? An example of interactive lecturing that stimulates meaningful learning. *Medical Teacher*, 27(1), 61–65.

- Harden, R. M., & Crosby, J. (2000). AMEE Education Guide No 20: The good teacher is more than a lecturer -the twelve roles of the teacher. *Medical Teacher*, 22(4), 334–347.
- Ho, A., Watkins, D., & Kelly, M. (2001). The conceptual change approach to improving teaching and learning: An evaluation of a Hong Kong staff development programme. *Higher Education*, 42, 143–169.
- Irby, D. (1978). Clinical teacher effectiveness in medicine. Journal of Medical Education, 53(10), 808-815.
- Kember, D. (1997). A reconceptualisation of the research into university academics' conceptions of teaching. *Learning & Instruction*, 7(3), 255–275.
- Kember, D., & Kwan, K.-P. (2000). Lecturers' approaches to teaching and their relationship to conceptions of good teaching. *Instructional Science*, 28, 469–490.
- Knight, L. V., & Bligh, J. (2006). Physicians' perceptions of clinical teaching: A qualitative analysis in the context of change. Advances in Health Sciences Education, 11, 221–234.
- Kuper, A., Lingard, L., & Levinson, W. (2008). Critically appraising qualitative research. BMJ, 337(20 Sept), 687-689.
- MacDougall, J., & Drummond, M. J. (2005). The development of medical teachers: An enquiry into the learning histories of 10 experienced medical teachers. *Medical Education*, 39(12), 1213–1220.
- Mann, K., Holmes, D., Hayes, V., Burge, F., & Viscount, P. (2001). Community family medicine teachers' perceptions of their teaching role. *Medical Education*, 35(3), 278–285.
- Martin, E., Prosser, M., Trigwell, K., Ramsden, P., & Benjamin, J. (2000). What university teachers teach and how they teach it. *Instructional Science*, 28, 387–412.
- Marton, F. (1981). Phenomenography: Describing conceptions of the world around us. Instructional Science, 10, 177–200.
- Marton, F., & Booth, S. (1998). Learning and awareness. New York: Erlbaum.
- Mohanna, K., Chambers, R., & Wall, D. (2007). Developing your teaching style: Increasing effectiveness in healthcare teaching. *Postgraduate Medical Journal*, 83, 145–147.
- Nilsson, M., Pennbrant, P., Pilhammar, E., & Wenestam, C.-G. (2010). Pedagogical strategies used in clinical medical education: An observational study. *BMC Medical Education*, 10(9).
- Parsell, G., & Bligh, J. (2001). Recent perspectives on clinical teaching. Medical Education, 35, 409-414.
- Postareff, L., & Lindblom-Ylänne, S. (2008). Variation in teachers' descriptions of teaching: Broadening the understanding of teaching in higher education. *Learning and Instruction*, 18, 109–120.
- Postareff, L., Lindblom-Ylänne, S., & Nevgi, A. (2007). The effect of pedagogical training on teaching in higher education. *Teaching and Teacher Education*, 23, 557–571.
- Pratt, D. (1998). Five perspectives on teaching in adult and higher education. Melbourne: Krieger publishing.
- Prideaux, D., Alexander, H., Bower, A., Dacre, J., Haist, S., Jolly, B., et al. (2000). Clinical teaching: Maintaining an educational role for doctors in the new health care environment. *Medical Education*, 34, 820–826.
- Ross, M. T., & Stenfors-Hayes, T. (2008). Development of a framework of medical undergraduate teaching activities. *Medical Education*, 42, 915–922.
- Samuelovicz, K., & Bain, J. D. (2001). Revisiting academics' beliefs about teaching and learning. *Higher Education*, 41, 299–325.
- Sjöström, B., & Dahlgren, L. O. (2002). Applying phenomenography in nursing research. Journal of Advanced Nursing, 40(3), 339–345.
- Stark, P. (2003). Teaching and learning in the clinical setting: A qualitative study of the perceptions of students and teachers. *Medical Education*, 37, 975–982.
- Stenfors-Hayes, T., Weurlander, M., Dahlgren, L., & Hult, H. (2010). Medical teachers' professional development -perceived barriers and opportunities. *Teaching in Higher Education*, 15(4), 401–410.
- Stone, S., Ellers, B., Holmes, D., Orgren, R., Qualters, D., & Thompson, J. (2002). Identifying oneself as a teacher: The perceptions of preceptors. *Medical Education*, 36, 180–185.
- Sutkin, G., Wagner, E., Harris, I., & Schiffer, R. (2008). What makes a good clinical teacher in medicine? A review of the literature. Academic Medicine, 83(5), 452–466.
- Taylor, E. W., Tisdell, E. J., & Gusic, M. E. (2007). Teaching beliefs of medical educators: Perspectives on clinical teaching in pediatrics. *Medical Teacher*, 29(4), 371–376.
- Trigwell, K., & Prosser, M. (1996). Changing approaches to teaching: A relational perspective. Studies in Higher Education, 21, 275–284.
- Trigwell, K., Prosser, M., & Waterhouse, F. (1999). Relations between teachers' approaches to teaching and students' approaches to learning. *Higher Education*, 37(1), 57–70.
- Ursano, A., Kartheiser, P., & Ursano, R. (2007). The teaching alliance: A perspective on the good teacher and effective learning. *Psychiatry*, 70(3), 187–194.

- Weurlander, M., & Stenfors-Hayes, T. (2008). Developing medical teachers' thinking and practice: Impact of a staff development course. *Higher Education Research & Development*, 27(2), 143–153.
- Williams, R., & Klamen, D. (2006). See one, do one, teach one -exploring the core teaching beliefs of medical school faculty. *Medical Teacher*, 28(5), 418–424.
- Wood, K. (2000). The experience of learning to teach: Changing student teachers' ways of understanding teaching. *Journal of Curriculum Studies*, 32(1), 75–93.