Challenges and Responsibilities of Clinical Teachers in the Workplace: An Ethnographic Approach

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ABSTRACT
This study aimed to explore the complex role of the clinical teacher in the workplace, with a view to identifying effective teaching practices. An ethnographic case-study approach was taken, including participant observations and semi-structured interviews with three participants that were selected from two participating veterinary institutions. The clinical teacher has several responsibilities, such as establishing a rapport with learners and maximizing the use of case-based learning opportunities to provide instruction and support to individual learners in a safe but challenging environment. Associated difficulties include balancing the competing demands of students’ learning needs and patients’ welfare, as well as maximizing the learning opportunities within available case material. Participants in this study demonstrated a reflective approach, adjusting their teaching approach “in action” and “on action” as appropriate.

Key words: clinical teaching, clinical placements, workplace learning, veterinary education, qualitative approach

INTRODUCTION
Clinical teaching on intramural rotations (IMRs) consists of unplanned opportunities, which emerge from cases that present themselves, complemented by structured, organized sessions that include ward rounds, seminars, and case presentations.1 Learners work alongside clinical teachers (clinicians, nurses, interns, and residents) and learn in a variety of ways from their experiences in the workplace.2 Clinical teachers have two main roles in the workplace: to teach students and to provide clinical care for patients.1 One of the strengths of clinical teaching is that students benefit from the contributions of a variety of staff with various perspectives and backgrounds.3 Research shows that clinical teaching is perceived as a demanding and difficult role to balance, with the provision of clinical care superseding the role of teaching.4,5 Nevertheless, there is general agreement that there are many challenges to working in the clinical environment.1

Previous research on clinical teaching has described the characteristics of an effective clinical teacher from the perspective of the learner.6–8 Several of these papers document common teaching strategies used in a busy clinical workplace as well as common mismatches between clinical teachers and learners based on quality and quantity of teaching and teaching style.3,6,7,9,10 One study found that teaching strategies employed in the clinical environment included questioning, demonstrating, lecturing, piloting, prompting, and intervening.7,11

Recently, the authors of this article have added to the evidence relating to this topic through engagement with a project funded by the Higher Education Academy’s National Teaching Fellowship Scheme. Enhancing Clinical Learning in the Workplace was a collaborative study between the School of Veterinary Medicine and Science (SVMS) at the University of Nottingham and the Royal Veterinary College (RVC) at the University of London, with additional support provided by the School of Education in Nottingham. The first phase of the project aimed to produce a better understanding of the experience of workplace learning, mainly from the student perspective.5 The themes that emerged acknowledged the significant value of the workplace as a safe, authentic environment where students are able to develop their clinical and professional skills. Evident challenges involved preparing students for the workplace and maximizing their ability to take advantage of a rich source of opportunistic learning. The project findings highlighted the need to further explore the complex role of the clinical teacher, and therefore recommendations for the second phase of the project included capturing clinical teachers’ perspectives. There is limited qualitative research (and few collaborative studies) exploring the experiences and reflections of clinical teachers at different institutions. The underpinning research question of this study was “What is the role of the clinical teacher?” Therefore, the study sought to explore the complex role of the clinical teacher in the workplace by identifying the responsibilities and challenges associated with clinical teaching in the workplace. An ethnographic approach was used to guide the research process and to gain a better understanding of complex phenomena in the clinical workplace.
METHODS

Context
The study was set across two institutions and involved clinical teachers employed by the RVC and the SVMS. The RVC has a predominately traditional model (university-owned and managed hospitals) for delivery of clinical IMRs. Clinical teaching is conducted mainly in referral hospitals where students work alongside clinical specialists, residents, interns, and nursing staff. SVMS has adopted a community-based, distributed model that delivers clinical IMRs predominantly through a small number of privately owned veterinary establishments. Staff involved in teaching include practice and university staff, with a mix of recognized specialists, non-specialist practitioners, residents, interns, and nursing staff.

Participants
Several criteria were used to identify potential participants, including involvement in clinical IMRs and degree of experience as a clinical teacher. Five or more years of clinical teaching was the required degree of experience. Suitable individuals were approached by the main researchers (KM and RW) at each institute, where a verbal briefing was given regarding the overall purpose of the study.

Methodological Approach
An ethnographic case study was conducted at both institutions between December 2010 and January 2011 to explore the complex role of the clinical teacher in the workplace. Ethnography aims to explore and describe a particular social phenomenon through research methods such as observation and interviews. Using an ethnographic case-study approach for data collection allowed the researchers to embed themselves within the learning environment (the context of the study) to capture and interpret the personal experiences of the clinical staff. Participant observation and semi-structured interviews were used to investigate the clinical teachers’ perspectives on teaching.

Data Collection
Both researchers had more than 7 years of experience in educational research and were trained in ethnographic methods (observation and interviews). Initially, written permission was obtained from clinical teachers in response to an E-mail invitation to observe their teaching, and then signed consent was gained from the final-year students on the clinical IMRs observed. Dates were then agreed upon for researchers at each institution to observe and conduct interviews with the participants. In addition, digital audio recorders were given to participants to record their thoughts. Confidentiality and anonymity were ensured for all participants. Given the low-risk nature of the study, approval was granted by the chairs on behalf of the ethics committees of the RVC and the University of Nottingham.

Observations
The researchers shadowed the participants for 5 days on a clinical IMR. Observation differed across each institution in relation to the dates and the clinical setting. The researcher at the RVC monitored the participants continuously for 5 consecutive days (35–40 hours) in December 2010. Observation at the SVMS was dependent upon the teaching schedule of the participant; therefore, the researcher observed the participant for 5 non-consecutive days (35–40 hours) conducted over a 3-week period in January 2011. The majority of observation in the RVC was in an on-site referral hospital, while that for SVMS was conducted in a first-opinion hospital and a referral hospital.

Researchers at both institutions observed daily activities in these clinical settings, taking handwritten notes and using a digital video camera to capture teaching in progress. These daily activities included interactions between the clinical teachers and the learners, specifically teaching and learning opportunities that occurred spontaneously or were formally arranged. The understanding gained by the researchers from the observations in addition to any supporting material on video were used as examples to inform what would be discussed with the participant at the end of each day.

Interviews
Interviews were semi-structured and framed around themes rather than a rigid set of structured questions, thus providing the opportunity to capture personal views on aspects of teaching and learning in the clinical setting and allowing the participants to reflect on their own practice (see Appendix 1). “Reflection-in-action” is described by Schön as thinking on our feet, looking at experiences, and attending to theories in use, whereas “reflection-on-action” is described as a process that occurs after the encounter, exploring why we acted as we did and what was happening in the group. Interviews were conducted in parallel with the observations, either at the end of the clinical day’s activities or the next morning, and were structured according to the researcher’s observations during the day and the conversations between the interviewee and interviewer about the teaching and learning events that had occurred that day.

Data Analysis
A process of thematic analysis was employed to identify themes emerging from the data set (researchers’ observations, interviews, and personal participant reflections). Observations, interviews, and reflections were fully transcribed and manually coded by both researchers (KM and RW) at each institution. Manual coding required grouping data (in this case, segments of text) together under individual “codes.” The codes were then organized into categories based on their related meaning. The researchers revisited the data set several times to further conceptualize their thinking processes. Coding was then performed by a third researcher (VD), and a process of negotiation resulted in a set of agreed-upon codes and
categories. From the ensuing discussion emerged the overarching themes. The primary researcher (KM) then re-coded interview transcripts and observation notes against the new set of agreed-upon and verified codes.

RESULTS

Clinical teachers who met the selection criteria and who agreed to participate included one small-animal first-opinion veterinary surgeon at SVMS (Participant 1) and two referral veterinary surgeons at the RVC, with equine (Participant 2) and small-animal (Participant 3) expertise. Each of the participants were experienced clinical teachers with at least 5 years of experience teaching in more than one workplace. In addition, digital audio recorders were given to participants to record their thoughts; only Participant 2 used this method. A total of 13 interviews were conducted, six with Participant 1 (SVMS), four with Participant 2 (RVC), and three with Participant 3 (RVC). The interviews ranged from 15 to 45 minutes in duration.

Three major themes emerged from thematic analysis of the interview transcripts and observations: (1) the teaching responsibilities of clinical teachers, (2) the challenges associated with teaching in the clinical workplace, and (3) the importance of reflecting in and on teaching. Quotes and observations from participants and researchers at both institutions have been used to illustrate these themes.

(1) The Teaching Responsibilities of Clinical Teachers

In relation to their role as clinical teachers, participants perceived that their main responsibility was to support student learning in the workplace. Interviews and observations revealed that participants fulfilled this responsibility by providing a supportive and challenging learning environment.

Creating a Supportive Learning Environment

Participants expressed the importance of an induction session at the beginning of the IMR in establishing an early rapport with learners and creating a positive learning environment where learners and participants could question, discuss, and review cases in an open and easy manner. One participant observed,

I find that if you make the effort with them and learn their names on day one then they will often start talking straight away. If you ignore them for the first 6 hours of the day and then expect them to engage with you, it won’t happen. (Participant 2)

Observations revealed that participants continually supported learners by being sensitive to their learning needs and treating them like work colleagues. Participants focused their teaching around cases and used several different strategies to increase the likelihood of learning. These strategies included preparing, questioning, demonstrating, prompting, explaining, providing explicit instructions, observing, providing feedback, and reviewing (Table 1).

Preparation occurred mainly before a consultation, with students being briefed about a case by the clinical teacher. After the consultation, the clinical teacher debriefed the student(s) to ensure that they understood the key elements of the case. Questioning occurred in all settings in the workplace (wards, seminars, surgery), the purpose being to assess the students’ level of knowledge before honing in on their specific learning needs, targeting them with further questions, or providing an explanation if required. Demonstrations from the clinical teacher were more likely to be undertaken in clinical scenarios that were perceived to be high risk (emergencies), whereas prompting and providing explicit instructions to a learner to undertake a task were characteristic of low-risk scenarios (e.g., taking blood). Prompting and providing explicit instructions often occurred after a learner had observed a clinical teacher demonstrating and explaining the skill, thus facilitating the student’s progression to becoming a competent and independent learner. When learners were observed, clinical teachers provided instructions (if required) and feedback after the session to ensure that the students could learn and improve. The debriefing mentioned is similar to reviewing and is where the clinical teacher discussed, for example, procedures or cases and tried to summarize and reiterate what students had learned by asking them.

Throughout the interviews, it became clear that participants (clinical teachers) valued all of the strategies mentioned above and perceived that providing learners with specific, concise, and timely feedback was of the utmost importance as it reinforced knowledge and skills while at the same time increased learners’ confidence in their skills. Participants recognized that they gave feedback to learners “all the time” in the clinical workplace, but learners did not always recognize when they were being given feedback.

Creating a Challenging and Safe Learning Environment

Participants considered that providing a challenging but safe learning environment for learners promoted learning. They acknowledged that they created a supportive atmosphere where learners could practice their skills in a low-risk environment. They perceived that being able to step back from their primary role as a teacher to more of a facilitator role and to not intervene was difficult. Participants tried to maximize any learning opportunities that arose, and when learners were unable to participate, they used the opportunity to promote active observation, still creating a challenging learning environment for learners. For example, during a complex surgery, the participant still managed to question learners about the procedure to assess their anatomic knowledge and took the opportunity to explain certain structures:

I try to engage them, the learners that are not involved in the procedure. We don’t get a lot of opportunities to get them involved in the procedures because there’s a lot of things we are just not allowed to let them do for safety and management reasons, so I tend to try and get them to talk and answer questions while those procedures are happening so that they do get something out of it. (Participant 2)

Participants continually monitored the progress of the learners, and as learners became more competent and
experienced, participants noted that their role changed from being a provider of instruction and feedback (teacher/supervisor) to a facilitator whose role is to support, discuss, and review a case when learners required.

(2) The Challenges Associated with Teaching in the Clinical Workplace
Participants acknowledged several challenges associated with clinical teaching in the workplace; these included managing individual learners and the group, managing case load, and balancing professional (clinical) and teaching responsibilities.

Management of Individual Learners and the Group
Participants reported that the management of individual learners and the dynamics associated with small groups was very challenging. Managing learners in terms of addressing their individual differences (e.g., quiet vs. dominant students) was expressed as a struggle:

I find it really hard if I’ve got a really difficult student. Sometimes it is just quite hard work, and it is easier just to take over than constantly go, “Come on, what are we going to do next?” … It’s a lot of work because you’ve got one who’s doing alright and you’ve got one that’s doing really badly—80% of your attention’s got to be on the bad one because they’re going to be missing stuff. (Participant 1)

Managing small groups frequently involved helping learners share their learning opportunities, a task often perceived as difficult by participants:

It can create quite an atmosphere among the students about who is to scrub in … when there are limited opportunities, it is more of a situation for the students rather than for me. As it is not up to me to decide, they usually decide among themselves. (Participant 2)

Management of the Case Load
Participants frequently mentioned difficulties associated with a variable case load (particularly the number and type of cases). Case load varied across each participant’s species area, with a low case load posing challenges for creating practical opportunities for learners. Despite expressing concern about this, participants maximized any learning opportunities that arose, including giving the students more practical experience. An increased case load provides abundant opportunities for practice but also creates timing difficulties and compromises as participants felt they were unable to conduct debriefing and review sessions with learners at the end of every case due to the busyness of the clinics. One participant observed,

We don’t always have that much time after each case to discuss because we have lots of throughputs of cases, so it is a compromise of “Do I slow
things down?” so the students are only doing four
consults each so we have more time to chat about
each case afterwards, or let them have the experi-
ence of more consults? (Participant 1)

This challenge was linked to the difficulties reported
by participants in balancing their clinical and teaching
responsibilities.

Balancing Professional (Clinical) and Teaching
Responsibilities
Clinical teachers perceived their role to be a balancing
act between their teaching and their professional (clinical)
responsibilities. One participant noted,

My job comprises research and teaching, lecturing,
doing seminars, having tutees, and being expected
to interview learners, being on committees, helping
other colleagues, and I find it really time consum-
ing and challenging balancing all these responsibil-
ities. (Participant 2)

Participants perceived that clinical responsibilities and
timing pressures had a negative impact on different facets
of their teaching and professional roles. The clinical
requirements of a case took priority over teaching and the
educational needs of the learners:

This issue of being torn, I often feel I am short
changing the learners because I always like to be
there all day doing clinical cases or teaching them.
(Participant 2)

Difficulty balancing teaching and clinical responsi-
bilities also meant that participants had limited time to
reflect on their teaching; however, they recognized reflec-
tion to be an important part of their role as educators.

(3) The Importance of Reflecting in and
on Teaching
Participants perceived that reflecting and developing re-
flective abilities were important for improving their clin-
ical teaching; however, they also recognized that it was
a difficult process, and finding the time to do this was
often limited by other responsibilities. Interviews re-
vealed that participants used a combination of reflection-
on-action and reflection-in-action as illustrated in the
following quotes, respectively.23 Participant 2 noted,

I used a different approach towards a discussion I
had with the students and I think it did not go so
well; a few of the students found it really challeng-
ing and some initially put up a barrier in response
to some of the terms I was using. I think I would
probably be more flexible with my approach the
next time. (Participant 2)

The same participant also remarked,

I think about previous material and prior under-
standing from the literature and also previous cases
and experience which you have had and then
bringer that back into what the current case is
about, integrating bits of knowledge from different
areas and cases then and there to help you make
your decision on a case. (Participant 2)

Participants engaging with reflection-on-action spe-
cifically related their thoughts and observations to their
teaching practices and strategies that they used with
learners and reflected on whether or not these strategies
worked. Participants also reflected on what they had
learned from their students and how they should feed
this forward into their teaching approach:

I feel that it went well with the learner and that
holding up the leg worked really well for the ban-
daging; I think that I would do that again. I learned
that this was actually a really good way of doing a
foot bandage with a learner and that the learners
are more than capable to apply bandages with spe-
cific instructions. (Participant 2)

Further reflections focused on participants’ interactions
with professional colleagues and the benefit of a team
teaching approach for the learners in the workplace by,
for example, bringing in residents to help support the
students in their acquisition of clinical skills.

DISCUSSION
This study sought to dissect the complex role of the clin-
ical teacher in the workplace. What has emerged is an
overview of the responsibilities of clinical teachers and
the challenges associated with this role in an unpredict-
dable and demanding environment. Our study suggests
that clinical teachers believe that providing a supportive
but challenging learning environment is central to devel-
oping learners who are autonomous and self-directed,
which fits well with the scaffolding approach consistent
with Vygotsky’s zone of proximal development.15 Devel-
oping this type of supportive learning environment and
providing teaching appropriate to the developmental
level of the learner are recognized as difficult; reducing
support and stepping back to give learners the owner-
ship of the task and the freedom they require to develop
rather than intervening is viewed as a balancing act.16
Our results suggest that the role of the clinical teacher
changes from primarily being a teacher to being more of
a facilitator as the students develop confidence in per-
forming their clinical skills. It is worth noting that even
though development of this type of learning environment
was viewed as challenging, it was perceived by clinical
teachers to be essential in preparing learners for the real-
ities of the clinical workplace.

Engaging learners in the clinical workplace has been
viewed as an important motivator for learning.14,17,18 Re-
results suggest that clinical teachers highly valued students’
active observation or participation in learning opportuni-
ties. Interviews and observations from our study suggest
that clinical teachers were flexible and believed they ad-
justed their teaching approach or strategies according to
the capabilities of individual learners. Engaging the learner
in the workplace requires the clinical teacher to consider
the individual learner’s needs and to tailor teaching to
meet those needs.20

Several challenges were associated with clinical teach-
ing, such as time restraints and managing the unpre-
dictable nature of the workplace. Restrictions on clinical
teachers’ time related to their competing teaching, re-
search, and clinical responsibilities. Participants described
feeling torn between their responsibilities to their students’ learning and their patients’ welfare. The status of the case (e.g., emergency) and the busyness of the environment often meant that clinical duties took precedence over educational endeavors. Research shows that clinical teaching is seen as an exacting and difficult role to balance with other work responsibilities.\(^4,5\)

Creating more time for teaching or finding ways to address the issue of busy clinical days may help overcome one of the main challenges in clinical teaching. Previous suggestions for addressing this issue include the incorporation of independent learning using online resources and reading materials and “case-of-the-week” presentations to help when clinical teachers are busy with clinical duties.\(^21,22\) Student preparation and orientation with IMR induction meetings to discuss learner expectations and goals will also help deliver time-effective teaching.\(^10,21\) In medicine, a three-step teaching process has been advocated in which clinical teachers use various strategies to (1) identify the needs of each learner; (2) teach according to that need through selection of a model (e.g., the 1-minute preceptor model, the activating observations and demonstrations model, or the SNAPPs model [summarize the case, narrow the differential, analyze the differential, probe the receptor, plan management, and select a case for self-directed learning]); and (3) provide feedback on student performance.\(^19\) All of these suggestions target learners’ needs; however, they still take time to be developed and implemented in the clinical workplace.

A further implication related to time restraints was clinical teachers’ opportunities to reflect on their teaching practice. The ability to become a more effective clinical teacher is linked to a teacher’s ability to reflect.\(^19,23\) Our findings suggested that clinical teachers were willing to reflect and change their teaching; however, finding the time to do so was often difficult due to conflicting teaching and clinical responsibilities. Finding the time to listen to students’ feedback and implement changes is important for professional development and the key to quality improvement of teaching.\(^20,21\)

The final challenge mentioned was managing the unpredictable nature of the clinical workplace. Clinical teaching is characterized by being unstructured, opportunistic, and dependent upon the number and type of cases that enter the clinical workplace.\(^8,24\) Having a flexible and adaptable approach to teaching in the workplace and maximizing learning opportunities enable clinical teachers to manage this type of unpredictability. This may be achieved by promoting the use of a framework that teaches the general rules of a case and reinforces these with learners by ensuring that learners retain the most important points of a case.\(^25\)

**Limitations of the Project**

Our main aim with this article was to highlight themes that arose from the data and to explore how those themes relate to current literature about the complex role of the clinical teacher in the workplace. This qualitative approach has produced rich data, which have enabled the researchers to develop a fuller understanding of the roles and responsibilities of clinical teachers in the veterinary context. This approach has its limitations regarding the small sample size of clinical teachers interviewed; therefore, no attempt to generalize is made. We anticipate that the findings of this study, which parallel those of previous studies, will stimulate further research on clinical teaching in the workplace.

**CONCLUSION**

This qualitative, ethnographic case study sought to explore teachers’ perspectives on their role throughout their experience of, and reflection on, their everyday responsibilities in the clinical workplace. There are several responsibilities and challenges that emerged from this case study that may help guide clinical teachers in terms of mastering the complexities and challenges associated with their role. A clinical teacher’s main educational responsibility is helping students to learn in the clinical workplace by creating a supportive but challenging learning environment. Clinical teachers in this study fulfilled their responsibilities by identifying learners’ individual needs and using appropriate and varied teaching strategies to engage learners in the clinical workplace. Clinical teachers also examined and improved their own teaching practice by incorporating student feedback and acting as reflective practitioners. In developing this engaging and supportive learning environment, several challenges around clinical teaching were exposed relating to time constraints and the unpredictability of the clinical workplace.

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**REFERENCES**

APPENDIX 1: INTERVIEW THEMES

1. Teaching/supervision that the participants were involved in and how they felt that it went:
   - What did you feel went well with regards to your teaching? Why do you think it went well? If you could do it differently, how would you do it?
   - What did you feel went well with regards to your teaching? Why do you think it went well? If you could do it differently, how would you do it?

2. Student performance and preparation and outcomes for activities:
   - What did the students learn from this practice?
   - What did you do to ensure quality teaching in this clinical setting?

3. Participant feelings on being observed:
   - Has being observed had any impact on your own teaching practice? [last interview]