WATCH Scrubs: a video observational study of workplace-based learning at Sacred Heart Hospital

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Abstract

Introduction

Workplace-based learning remains the cornerstone of clinical training. Teaching in the clinical environment promotes active engagement as trainees have to combine their competences e.g. skills in history taking, examination and clinical reasoning to determine an appropriate course of action. High quality clinical teaching supports and scaffolds trainees' learning in clinical workplaces

This study aimed to explore the quality of clinical teaching at a large teaching hospital.

Methods

A retrospective video observational study of nine years of workplace-based learning at Sacred Heart Hospital, a large private teaching hospital. Each academic year was observed by one researcher. Clinical teaching encounters were identified and analysed using the Warwick Assessment insTrument for Clinical teacHing (WATCH). Descriptive observation notes were recorded and analysed thematically.

Results

131 teaching encounters were identified, provided by 12 tutors. The 15-item instrument demonstrated a Cronbach's alpha of 0.89. The hidden curriculum, role modelling and reflection played a prominent role in trainees' personal and professional development

Discussion

Trainees' learning in clinical workplaces reaches beyond the formal teaching they receive to include developing professional behaviours through role modelling, and reflection on clinical encounters.

Introduction

Learning in the clinical workplace forms an integral component of medical training, this is because it contextualises real-world problems and, in doing so, motivates learners through the topics' relevance. Teaching in the clinical environment also promotes active engagement as trainees have to combine their core competencies e.g. skills in history taking, examination and clinical reasoning to determine an appropriate course of action. In these scenarios, however, it is not only knowledge gained by trainees but also the attitudes, teaching styles, behaviours and many other attributes of a tutor that may be modelled by the trainee. Despite all the positives of workplace-based learning; weakness in the delivery, organisation and implementation can result in less beneficial learning experiences.[1] As a large proportion of medical training is dependent on workplace-based learning, there is a significant risk posed by poor quality teaching.

Trainees' learning and development in clinical workplaces is not confined to deliberate episodes of teaching, rather learning takes place all the time.[2] Participating in work, observing colleagues and mentors, practising under guidance, and honing skills through repetition, remain the commonest learning activities for trainees. Opportunities to undertake these activities will depend on both the learning environment and learners' individual motivation.[2]

This study aimed to explore the quality of clinical teaching and workplace learning at a large fictional teaching hospital.

Methods

Sacred Heart Hospital (SHH) is a fictional private teaching hospital in San DiFrangeles, California.[3] In addition to providing medical care to the local population, SHH serves as a base for postgraduate and, more recently, undergraduate clinical training, and the setting for the popular television comedy *Scrubs*.

We undertook a retrospective non-participant remote observational study of workplace based learning over a nine year period (2001-2010) at SHH. Each academic year was observed by one researcher. Tools used to support data collection were: WATCH tool, buttered popcorn, grease stained paper, pens and a TV remote. Clinical teaching encounters were identified and analysed using the Warwick Assessment insTrument for Clinical teacHing (WATCH), a validated peer observation of teaching instrument in which 15 items (table 1) are scored on a ten-point likert scale anchored at 1=poor and 10=excellent.[4] All settings, tutor grades, number of learners, topics and type of teaching were recorded. Teaching sessions had to be medically-relevant to be included. Participant consent was not sought and contributions not anonymised, as all participants were fictional.

We undertook a pilot study in which all four researchers observed and analysed three episodes and tested inter-rater reliability by analysing all 4 assessors ratings in relation to the same clinical teaching events (n=12).

For each of the criteria in the WATCH instrument the quality and breadth of teaching was analysed using descriptive statistics. We calculated the reliability of the instrument using Cronbach's alpha.

All statistical analyses were conducted using SPSS (IBM Corp. v21.0. Armonk, NY).

Through observation it became apparent that much of the learning took place outwith the boundaries of formal teaching encounters, and even beyond the confines of the clinical environment. Therefore descriptive notes were made regarding trainer-trainee interactions and the effects these interactions appeared to have on learning. We subsequently met to discuss emergent themes from the analysis of the observations.

Ethical approval was not sought as the data used was readily available in the public domain.

Results

131 teaching encounters were identified, provided by 12 tutors. The mean scores for each item can be found in table 1. The 15-item instrument demonstrated a Cronbach's alpha of 0.89. Paradoxically, role-modelling scored second highest of the items, while demonstrating professional and ethical behaviour scored lowest

The observation, whilst initially focusing on the quality of clinical teaching, identified a number of other trainer-related factors that influenced trainees' workplace-based learning.

The hidden curriculum was identified as playing a prominent role in the trainees' professional development.[5] This became increasingly evident as the trainees progressed clinically, with the observed quantity of clinical teaching decreasing. The trainees' interactions with tutors and healthcare professionals

led to their acceptance of hierarchy, adoption of a professional identity and appreciation of implicit rules within SHH.

The development of professional identity was a central theme that emerged from observation. A pivotal trainer-trainee relationship, that of Dr Cox (attending physician) and Dr Dorian (trainee), demonstrated the impact of role-modelling on identity formation. Dr Dorian appeared to admire Dr Cox's distinctive, no-nonsense clinical approach, and was seen to mirror this mentorship style when he acquired his own trainees. However, role-modelling also resulted in less favourable practices being adopted.

Dr Cox's no-nonsense approach manifested itself in the form of ritual humiliation; this culture of bullying being evidenced by the frequent use of discrimination and personal criticism (mean (SD) score for avoiding criticism and discrimination = 6.4 (2.5)). Interestingly, this elicited different responses from each trainee.

Dr Cox (to Dr Dorian, in song): 'Do you know how much you annoy me? The answer is a lot. Should I list the reasons why? Well I don't see why not. It's your hair, your nose, your chinless face, you always need a hug, not to mention all the manly appletinis that you chug. That you think I am your mentor, just continues to perplex…'

Despite unrelenting demasculination suffered at the hands of Dr. Cox, Dr Dorian accepted criticism and strived to improve his performance

Dr Dorian (to Dr Cox): ''In my mind, you're the one who made me the man I am today'.

In contrast, Dr Reed, another trainee, responded less positively, resorting to avoidance coping and finding refuge in a store cupboard.

*Dr Reed (to Dr Cox): 'With me you've never been anything but an unsupportive b****rd, and you know it'*

In addition, she sought to develop an online community for those affected by the institutionalised humiliation at SHH. Unfortunately for Dr Reed, 'www.ihatecox.com' failed to reach its intended audience. This and other attempts by Dr Reed to discredit her senior was symptomatic of a wider culture of unprofessional behaviour that is endemic at SHH.

Dr Cox (to Dr Reed): 'Hows abouts we act like adults here and lay our cards on the table, you know that you're not exactly my favourite person in this dump, and I say that knowing full well that you feel the same way about me.'

Dr Reed (to Dr Cox): 'I started an 'I Hate Cox' chat room, it hasn't really worked out the way I planned, it's me, two interns and fourteen thousand lesbians.'

Finally, the practice of reflection and discussion was an important contributor to workplace-based learning. Dr Dorian, demonstrated excessive use of reflection, both in-action and on-action. Whilst reflection is frequently seen to aid Dorian's learning from clinical experience, his in-action reflection, easily mistaken for absence seizures, is often seen to hamper his productivity.

Discussion

Current clinical settings are frequently understaffed, with clinicians under significant time pressures and increasing commitments between clinical, administrative, research and teaching roles. Teaching in this setting is often opportunistic and good teachers are poorly recognised.[1]

Main findings

We observed that trainees' development depends on more than just the teaching they receive, but includes the role-modelling effects of tutors alongside the degree of motivation and reflective practice undertaken by the trainees themselves.

The workplace culture appears to have a significant impact on trainees' learning and development. Each trainee, however, may be affected by this culture in different ways. Hence the differing responses of Dr Dorian and Dr Reed's to Dr Cox's mentoring style. Whereas Dr Dorian strives to live up to Dr Cox's high expectations, Dr Reed often appears defeated and on the brink of giving up. Trainers must therefore recognise the effect different mentoring styles have on trainees and tailor their approach to foster the best development in each of their learners.

While there appears to be some deficiencies in the professional and ethical behaviour of trainers at SHH, there do still appear to be positive role models. However, the hierarchy breeds role-modelling, that is at times detrimental at SHH as some in positions of responsibility do not behave accordingly.

The aforementioned observations serve to highlight not only the presence of, but also the noticeable influence the hidden curriculum has on trainees at SHH. These observations are, perhaps, unsurprising; the formal curriculum is known to only account for a small percentage of the overall instruction received by medical students.[6] In addition, the hidden curriculum has also been observed at Chicago County Hospital and Grey-Sloan Memorial Hospital, featured in the 'fly on the wall' documentary series *ER* and *Grey's Anatomy* respectively.[7] Ethnographic studies at these institutions also highlighted role-modelling, professional (or in many cases unprofessional) behaviour and hierarchy as being key aspects of the hidden curriculum which, serves to add weight to the findings at SHH.[7] Given the extent to which the hidden curriculum can impact upon trainees, it remains important for medical educators to consider the influence of these experiences upon trainees and how they may interact with formal education.

Strengths and limitations

This study benefits from having used a large dataset of video observations over the course of nine years of clinical training. Mixed methods methodology was employed to describe the quality of teaching and explore how trainers impact on trainees learning. Furthermore as the observations were of clinicians' actual practice, we have been able to observe the highest level of Miller's pyramid what people actually do.[1]

These strengths not withstanding, this study is limited by its focus on a single (fictitious) centre, with a relatively small number of trainees. While we have endeavoured to provide data exploring how trainers' behaviour impacts on

learning, further studies using qualitative methodology could shed more light on this area.

Conclusions

Trainees' learning in clinical workplaces reaches beyond the formal teaching they receive to include developing professional behaviours through role modelling, and reflection on clinical encounters. This should be borne in mind when considering appropriate clinical areas and personnel for the provision of clinical placements.

References

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Table 1 - Mean (SD) scores for teaching at Sacred Heart Hospital assessed using Warwick Assessment Instrument for Clinical teaching

Item		Mean	Standard deviation
1	Communicates effectively with trainees	8.1	1.5
2	Teaches concepts and skills in an organised manner	7.6	1.7
3	Promotes active engagement of trainees during learning	7.6	2.2
4	Maintains polite and considerate attitude with trainees	5.6	2.7
5	Demonstrates clinical competence (sound analytical, diagnostic, therapeutic, and reasoning skills) appropriate for the stage of training	6.5	2.5
6	Expresses enthusiasm towards teaching and learning	5.4	2.7
7	Provides constructive feedback to trainees	7.0	2.1
8	Avoids favouritism, criticism and discrimination	6.4	2.5
9	Is a good role model for trainees	8.2	1.6
10	Stimulates reflection and problem solving skills	6.0	2.4
11	Demonstrates appropriate use of teaching aids and resources	8.3	1.4
12	Adjusts teaching to learners' needs	6.6	1.8
13	Is able to teach in diverse settings (bedside, operating theatre, wards) and involves patients in teaching (if relevant)	5.1	2.6
14	Demonstrates professional and ethical conduct	4.8	2.5
15	Remains up to date with knowledge of developments in the field	5.4	2.9