Developing an e-induction passport for doctors in training in the South West of England

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Background: Doctors in training rotate round different organisations, sometimes for short periods of times. Face to face induction and requirements for statutory and mandatory training can be very time-consuming. Streamlining these processes has potential to increase the amount of times junior doctors can spend on direct patient care, particularly important at the key times when new cohorts of doctors start work.

Summary of Work: In 2012, the hospital in Bath developed an on line e-induction package that also met all the requirements for statutory and mandatory training, which was completed by junior doctors prior to starting work in the hospital. The package was based on interactive patient scenarios, with in built assessment. In 2015, the e-induction package was implemented in 17 hospitals.

Summary of Results: Early evaluation demonstrated that 87% of doctors completed the induction prior to and 90% within one month of starting work. Compliance levels with statutory and mandatory training reached 100% within 2 months of starting. There was a reduction in face of face induction time of 90 mins, resulting in an estimated additional 216 hours of availability of junior doctors hours on the first day of work. In 2015, 1244 trainee doctors and 219 non training grade doctors completed the e-induction programme with positive feedback.

Discussion: When originally developed, the e-induction package was designed to meet Statutory and Mandatory Learning needs. However, in 2015 it was implemented solely as an e-induction package. Work is now underway to develop the package to meet Statutory and Mandatory Training Requirements. This will allow the development of a passport arrangement, whereby training undertaken in one hospital will be recognized in another.

Conclusion: Induction and statutory and mandatory training requirements for junior doctors who rotate through many different hospitals can take up a disproportionate amount of time and remove them from clinical care.

Take Home Messages: An innovative interactive e-induction package can reduce face to face induction time and increase the amount of time doctors can provide clinical duties.
Junior doctors changing complex hospital settings: An activity-theoretical analysis

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**Background:** The hospital setting comprises a complex working environment under constant change. This explorative case study employs Cultural-Historical Activity Theory (CHAT) to investigate junior doctors’ perspectives on workplace learning and organisational change at Aalborg University Hospital, Denmark, derived from an institutionalised innovative process (3-hour-meetings).

**Summary of Work:** Data consisted of records (1062 word pages) of 1886 junior doctors’ reflections and action plans for change from the yearly 3-hour meetings during the period 2006-2014. Records were analysed using a CHAT analytical tool called ‘Change Matrix’, which focuses on the object of change and assisted us in the analysis of change events taking place through the years as well as structural and cultural barriers.

**Summary of Results:** Junior doctors were successful in changing the learning objects by being instrumental in changing division of work, rules and their learning environment supported by management. Four themes relating to junior doctors’ workplace learning were found: Supervision, skills acquisition, participation and continuity. Contradictions and central problems in the activity systems were delineated e.g. lack of resources.

**Discussion:** CHAT provided us with an analytic tool to identify and redefine the objects of activity and the positive as well negative organisational structures surrounding complex work practices. The historical analysis showed how changes in patients care pathway from in-patient care to out-patient care and educational reforms challenged how and where junior doctors participate in medical work as participants in specialist training.

**Conclusion:** CHAT is helpful in analysing the complexity of hospital workplace learning, amongst others by identifying organisational contradictions and tensions.

**Take Home Messages:** To redesign hospital workplace learning junior doctors are important contributors and they can often perceive the need for change, as they are experiencing first-hand the often conflicting demands of care and learning. Innovative methods of change interventions that include stakeholders and incorporate methods aligned with action research or in CHAT e.g. the Change Laboratory, could be recommended.

**Disciplinary boundaries and integrating care: using Q methodology to understand trainee views on being a good doctor**

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**Background:** Rising numbers of patients with multiple-conditions and complex care needs (Greenaway 2013) mean that it is increasingly important for doctors from different specialty areas to work together alongside other members of the multidisciplinary team, to provide patient-centred care. However, intra-professional boundaries and silos within the medical profession may challenge holistic approaches to patient care (Liberati et al. 2016). A better understanding of the views and perspectives of medical trainees from different specialty areas may help us to identify how to bridge disciplinary gaps and foster interdisciplinary work.

**Summary of Work:** We report Q-sort data and associated factor analysis (Watts and Stenner 2012) from post-graduate trainees (n=38) from a range of different specialty programmes. We explore whether trainees from different specialty areas have distinct views on what makes a good doctor.

**Summary of Results:** Despite high levels of overall commonality, three groups of trainees emerged, each with a distinct perspective on being a good doctor. Key differences relate to characteristics of patient-centredness, generalism and specialism.

**Discussion:** Our results show some divergence between those trainees planning to become specialists in a particular body area/system, compared to those seeking a career in primary care or specialising in a particular type of patient (e.g. paediatrics). However, our analysis also recorded high levels of similarity between groups, suggesting a high degree of shared values and priorities amongst these trainees.

**Conclusion:** Whilst distinct, the priorities and values of trainees in this study share some important aspects, which can be built on in a way that enhances interdisciplinary working.

**Take Home Messages:** A nuanced understanding of trainee views on being a good doctor, across different specialties, may help us to bridge gaps and foster interdisciplinary working.
Mentorship of quality improvement experiential projects in resident training: Faculty perceptions and experiences

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Background: The Co-Learning Quality Improvement (QI) Curriculum has the dual aim of teaching QI knowledge and skills to medical residents and faculty, as well as increasing faculty capacity to mentor and teach QI. A core element of this one-year curriculum, as in other QI training programs, is an experiential project. This study aimed to explore faculty's perceptions and experiences mentoring residents' projects from 2012-2015 to increase our empirically based understanding of this teaching approach and the factors that influence its overall effectiveness.

Summary of Work: This study used an interpretive approach in the data collection and analysis of 36 qualitative interviews with 28 faculty from 13 subspecialty graduate medical education programs who participated in the Co-Learning QI Curriculum. A conventional content analysis approach was used.

Summary of Results: The findings demonstrate that faculty discussed the QI project in relation to the topic being ‘resident’ versus ‘division’ driven and as a contained one-year initiative versus a component of a longer-term initiative. Faculty described successful and missed opportunities for interprofessional collaboration in the QI work, and variation in explicit attention to this issue. The findings also demonstrate the insights faculty gained over time in their mentorship role such as managing group dynamics and faculty leadership in topic selection and project progress.

Discussion: This study contributes insights to the empirical data of how experiential projects intended to support QI learning are carried out in practice, and the range of learner, faculty and organizational factors that shape this process.

Conclusion: A deeper understanding of the factors shaping the QI experiential project experience can optimize the use of this learning approach for QI training.

Take Home Messages: This study illuminates the learner, faculty, interprofessional and organizational factors that need to be considered as part of a QI experiential learning project.

Does a pre-visit, document-based review predict program quality? A pilot project of Canadian postgraduate medical education (PGME) accreditation

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Background: Accreditation of Canadian PGME programs involves both review of program documentation and an onsite peer review. However, the need for every program to have the onsite review was unclear. We conducted a randomized educational trial of paper versus onsite review of PGME programs at three Canadian medical schools undergoing accreditation.

Summary of Work: We set a priori rules to review programs’ documentation for eligibility for exemption from onsite review; 178 programs were evaluated. 51 programs were automatically scheduled for onsite review; 127 were reviewed for exemption. 40% (28/71) of the programs recommended for exemption were then randomly selected for onsite review. We then compared the accreditation outcomes of programs as determined by onsite and document review. Sensitivity and specificity were calculated, for the ability of the document-based review to accurately predict the onsite review outcome.

Summary of Results: Document review had 80% sensitivity and 36% specificity when onsite review was used as the gold standard. The positive predictive value was 21%; the negative predictive value was 89%. Accuracy was 42.5%. 79% (44/56) programs identified as needing onsite review received a positive accreditation outcome (RS). 11% (3/28) of the randomly selected onsite programs received a negative accreditation status; two had serious concerns regarding the learning environment.

Discussion: Onsite program exemption was associated with modest accuracy, specificity and positive predictive value; several programs that could have been exempted were not, resulting in duplication and decreased efficiency. In addition, while associated with relatively high sensitivity and negative predictive value, the document review process resulted in some programs with serious concerns being recommended for exemption.

Conclusion: A document-based review cannot replace onsite reviews in the Canadian accreditation process.

Take Home Messages: The value of onsite review is espoused in medical education accreditation; this study was the first to examine effectiveness of another method as compared with the onsite visit, with implications for accreditation systems worldwide.