Fake it till you make it? How does an innovative Longitudinal Integrated Clerkship affect student perceptions of the ‘educational authenticity’ of their experience?

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ABSTRACT

Background: In 2016, Imperial College launched an innovative Longitudinal Integrated Clerkship (LIC), which placed 24 year 5 students in GP practices for one day/week for the entire year. Students accrued a patient caseload, whom they cared for and followed into secondary care where appropriate. There is a growing evidence base for such LICs worldwide, but very little research within the UK, where authenticity in medical education has been decreasing over many decades.

Summary of Work: A qualitative research method was used, with a phenomenological approach. Semi-structured interviews were conducted with 6 of the 24 students, aiming to broadly define the concept of authentic learning and explore students’ perceptions of the development of professional relationships within the LIC. Thematic analysis was undertaken using open and axial coding. The Cognitive Apprenticeship model by Collins et al (1989) was used as a framework to interpret the data.

Summary of Results: Four main themes relating to educational authenticity were identified: ‘Authenticity Through Relationships’, ‘Time as a Vessel for Authenticity’, ‘Reality of Apprenticeship’ and ‘Value of Apprenticeship’. This presentation will concentrate on the value of creating a liminal space for creation of student paraprofessional relationships. Students perceived themselves as bridges between the patient and their care and between primary and secondary care. Such relationships between tutor, student and patient reinforced authenticity and can lead to a transformative learning process.

Discussion and Conclusions: The nuances of the UK healthcare system and the innovative design of the hybrid LIC model appeared to allow time for students to experience beyond the usual situated learning available in most ‘block’ rotations. The liminal space created within this paraprofessional context allowed students to negotiate roles with authentic power and agency. Students can develop meaningful roles within authentic settings if they are afforded time and continuity with peers, patients and tutors.

Take-home Messages: Undergraduate learning should include long-term, negotiated paraprofessional relationships, where students are afforded the opportunity to do more than passively observe within a situated context. Such opportunities lead to the creation of transformative learning environments with authentic student agency.
Can Longitudinal Integrated Clerkships help protect against a decline in professional attributes in medical students? Evidence from a longitudinal cohort study

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ABSTRACT

Background: There is evidence of a decline in professional attributes in medical students and a lack of students’ preparedness for practice. The model of Longitudinal Integrated Clerkships (LICs) promotes the development of attributes such as patient-centredness and resilience in medical students. Since 2016, Imperial College has run a novel LIC in 5th year of the MBBS, entitled the 'Integrated Clinical Apprenticeship' (ICA), to better prepare our students for their transition to practice. ICA students develop an authentic and meaningful role with their patients and reflect on professional attributes e.g. managing risk and uncertainty. We therefore researched: 1. Is there a change in professional attributes in our medical students? 2. Does an LIC model impact these attributes?

Summary of Work: In 2016 and 2017, 5th year MBBS students were invited to complete validated inventories at the beginning and end of the years, looking at the following: tolerance of uncertainty, risk-taking, patient-centredness, empathy, resilience and work-based empowerment. Paired data from students on the ICA and not doing the ICA (control) were analysed using paired student T-tests.

Summary of Results: ICA students had an improved tolerance of uncertainty (p<0.05), with no change in the control group (p=0.13). Control students become more risk-averse (p<0.02), less resilient (p<0.002), and less empowered on clinical placements (p<0.0002) with no significant change in the ICA group in any of these attributes. There were no significant changes seen in either group regarding patient-centredness or empathy.

Discussion and Conclusions: This longitudinal study in a UK medical school adds to the evidence base showing a decline in professional attributes of medical students, with students becoming more risk-averse, less resilient and less empowered. Results suggest that LICs may be a model that protects this decline, however further research is needed to evaluate this.

Take-home Messages: This study adds to the international evidence, supporting the notion that medical students’ professional attributes are eroded during their clinical placements. As UK medical students enter a challenging, fragmented healthcare system with an increasingly complex and multi-morbid workload, LICs could be an important educational intervention that protects medical students against this phenomenon and better prepares them for clinical practice.
The Dundee Longitudinal Integrated Clerkship - a phenomenological exploration of the experiences of patients

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ABSTRACT

Background: The Dundee Longitudinal Integrated Clerkship (LIC), in which medical students spend their fourth year attached to a GP practice, is the first of its kind in the UK, although it is a model of medical education employed by a number of medical schools worldwide. Longitudinal clerkships aim to increase continuity of care and patient centeredness by allowing students to consult with patients in general practice and to follow them into secondary care as they receive further investigations or treatment. The LIC is currently a pilot in its third year. Initial research has found that students value the immersive experience offered by the LIC. This study will explore the patient experience of the LIC. There is limited literature exploring the patient experience of longitudinal clerkships.

Summary of Work: The study is a qualitative exploration of the patient experience of the Dundee Longitudinal Integrated Clerkship. It will explore three main areas: 1. the impact of involvement of LIC students on patient care; 2. the impact of the involvement of the LIC student on patients’ understanding of their illness or disease and its management; 3. the effects of patients’ relationships with LIC students on their experience of healthcare. The evidence gained from the study will contribute to the development of the LIC in future years, enhancing the experience for future students and patients.

Summary of Results: Results are not yet available. Patient interviews will be carried out towards the end of the current academic year (May/June 2019), with results available for presentation at AMEE 2019.

Discussion and Conclusions: Discussion of the patient experience of seeing medical students involved in the longitudinal clerkship, in particular with regard to the impact the students involvement had on patients care, understanding of their illness and experience of healthcare.

Take-home Messages: Patient centredness, continuity of care and longitudinality are central features of the longitudinal clerkship model of undergraduate medical education. There is limited literature exploring the patient experience of involvement in the clerkship model of undergraduate education. This study will increase our understanding of patients experiences of the longitudinal clerkship including impact on their experience of healthcare.
#7L  Short Communications - Longitudinal Integrated Clerkships

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Comparing the personalities of medical students in rural and urban education programs highlights differences in perfectionism: Implications for nurturing competence and confidence in medical students

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ABSTRACT

Background: Rural longitudinal integrated clerkship (LIC) programs have contributed to our understanding of selecting and training students for rural practice. Studies have explored personality profiles of students who participate in rural LICs although few have compared them with classmates who have not. This study compared personality and psychological characteristics of four consecutive cohorts of students in the LIC Rural Physician Associate Program (RPAP) with their non-RPAP classmates.

Summary of Work: In a longitudinal cross-sectional comparative design (2013/2014 through 2016/2017), RPAP and non-RPAP medical students completed identical questionnaires measuring temperament and character traits, Perfectionism-CoM: (concern over mistakes) and Tolerance of Ambiguity (ToA). T-tests, ANOVA and post-hoc tests compared groups.

Summary of Results: Gender and age were not different between groups (RPAP=128, non-RPAP=158). More RPAP reported a rural background and strong interest in rural practice. RPAP were significantly lower in levels of Perfectionism-CoM (driven by goals and achievement versus fear of failure), and higher in Cooperativeness (tolerant, empathic) compared to non-RPAP classmates. ToA levels were moderately high and not different between the groups. Significant (p<0.001) correlations (>0.3) were negative between Perfectionism-CoM and Cooperativeness and ToA, but positive with Harm Avoidance (anxiety proneness).

Discussion and Conclusions: The influence of personality is context dependent. Lower Perfectionism-CoM and higher Cooperativeness in RPAP students point to advantages in coping with particular aspects of rural practice. Higher Perfectionism-CoM and its association with anxiety can provide insight into behaviours such as coping with challenging environments and gaining confidence in ambiguous situations. Nonetheless, all students appear to be managing ambiguity, which is encouraging given its ubiquitous role in medical practice.

Take-home Messages: Physicians are constantly required to act decisively - even at the risk of making a mistake. Putting our findings into the context of a rural LIC suggests that students who are highly perfectionistic and overly concerned with mistakes may feel uncomfortable in, or even avoid situations with limited resources and consultation. Curricular modifications that support students in tasks outside their comfort-zone may be helpful for those particularly high in perfectionism. A goal as educators is to nurture competence and confidence in all students whatever the environment.
Participation, interpersonal relationship and interaction among medical students in longitudinal integrated clerkship and rotation-based clerkship

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ABSTRACT

Background: Longitudinal integrated clerkships (LIC) is an innovative educational model and its curriculum design is different from traditional rotation-based clerkships (RBC). The purpose of this study was to explore the impact of curriculum design on students’ participation in clinical activities and interaction with medical team members.

Summary of Work: The survey was conducted in April 2018, the second to last month of M5 clerkship. All students finished their first-year internal medicine (IM) rotation. In academic year 2017/18, there were 15 LIC students and 97 RBC students. All LIC students were enrolled, and 29 RBC students were enrolled by using convenience sampling. The data were collected using an anonymous questionnaire. In the first part, the students were asked to list a typical daily schedule (from 7:00 am to 5:00 pm) of IM rotation. In the second part, the students would draw an ecomap of clinical team members. The reference was a patient who was illustrated by a circle (1cm in diameter) located in the center of the map. The size of the circle meant the importance of this member. The distance between circles showed the relationship between members. The number of connecting lines between circles demonstrated the interaction between members.

Summary of Results: LIC students spent more time on direct patient care and participating in outpatient clinic/operation room. For the importance of clinical team members, there was no difference in the circle size of attending, resident, intern among LIC and RBC students. But the circle of nurse was larger in RBC students. For the interpersonal relationship, LIC students were closer to attending but more distant to intern. For the interaction between team members, LIC students had more frequent interaction with patient and attending.

Discussion and Conclusions: In this study, there are significant differences in the clinical participation and interpersonal relationship and interaction among LIC and RBC students during IM rotation. The curriculum design had an effect on students’ participation and interpersonal interaction.

Take-home Messages: The LIC students had more opportunity to care patients directly and more frequent interaction with patients and attendings.
The Undergraduate Clinical Skills Progress Test: First Outcomes of Longitudinal Student Skill Assessment

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ABSTRACT

Background: Testing student progress through longitudinal examination serves as a formative assessment tool to understand current curriculum outcomes and improve student evaluation. Next to assessing theoretical knowledge it is becoming more important to assess clinical skills knowledge. Objective structured clinical examination (OSCE) is a method to assess the level of clinical skills knowledge. The purpose of this study was to evaluate in a low-stakes formative assessment the clinical skills level improvement of finishing medical students prior to and after their 9 week Internal medicine clerkship.

Summary of Work: Medical students (n = 34) voluntarily participated in this study during their mandatory Internal medicine clerkship. Each student was assessed in three different clinical skills before and after the clerkship. OSCE was used to grade students in history taking, venipuncture and rectal examination. Our study analyzed the correlations of students’ knowledge in clinical skills before and after the clerkship. Data was analyzed using the SPSS program.

Summary of Results: Our study shows a significant improvement in history taking score (p=0.001) and in total OSCE score (p=0.006) on the second testing. A significant reduction in time needed to complete the task was observed in rectal examination (p=0.003) and history taking (p=0.013) compared to the first testing. There was no significant difference between the score on the first and the second testing in rectal examination (p=0.924) and venipuncture (p=0.096).

Discussion and Conclusions: This data is first data of ongoing implementation of a clinical progress test in our intermediate and final medical students. Our study indicates that students improve in history taking as a consequence of performing this skill most often during clerkship. Thus, also improving time management on history taking. We hypothesize that other skills were not practiced by students as often, therefore there was no observed improvement.

Take-home Messages: The results of the study show, there was a progress in history taking after completing the Internal medicine clinical clerkship. No progress was observed in performing the rectal examination and venipuncture. In order to improve these clinical skills, training activities should be considered.
What do medical students learn in Shadowing Modeled Inter-Professional Education (SMIPE)? A preliminary report of SMIPE Project

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ABSTRACT

Background: Currently, schools implemented a nurse-shadowing program, in which participants observe professionals at work, to help medical students learn more about the role of nurse in health care. Few studies used shadowing-based curriculum to build up IPE attitude in medical students. The purpose of this study described the shadowing modeled inter-professional education in medical students in Taiwan.

Summary of Work: We developed the SMIPE project for five-year medical students in Taipei Medical University in 2018. The 8-week project involved nurses, pharmacists, physical therapists, respiratory therapists, dietitians, case managers of discharge preparing, members of hospice term and social workers. Participants (N=55) were grouped (3 to 4 students/group) and separately participated 3-hours shadowing with one healthcare professional every week. Each section consisted of 4 phases including the explanation of learning purpose, the observation toward preceptors, the discussion at the end of each section, and the reflective assignments. They finished a satisfaction questionnaire (range 1 to 5) after this project. To understanding the learning of SMIPE, content analysis was performed for categorical of reflective assignments.

Summary of Results: Students reported a high satisfaction in SMIPE (M=4.7, SD=0.2). Three highest satisfactions were shadowing with pharmacists (M=4.92, SD=0.02), respiratory therapists (M=4.88, SD=0.01), and nurses (M=4.81, SD=0.02). In their reflections, the majority (82%) reported that learning inter-professional collaboration was necessary between physicians and other healthcare providers in clinical. They must respect more other healthcare providers, especially nurses, case managers of discharge preparing, and term members of hospice care. They learned great communication skills from nurses and social workers. 30% of students reported that they learned more about hospice care on hospice care section since they didn't take those before in school. They noted that they got a lot of interesting knowledge and understanding of job's roles on respiratory therapists (25%), pharmacists (20%), and dietitians (20%).

Discussion and Conclusions: The results suggested that SMIPE might have the effectiveness on IPE attitude in medical students. They learned the roles of other healthcare professionals on inter-professional collaboration and then to redraw their professional position in clinical practice.

Take-home Messages: We plan to exam the effectiveness of this project to determine whether it influences medical students' behavior on inter-professional collaboration.