EDITOR'S CHOICE

Teaching and learning in outpatients and beyond: how ambulatory care teaching can contribute to student learning in child health

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> It is sad that this area where teaching is of the greatest importance, is the one where the needs of the patient and the needs of the student conflict most.

While this quote from Professor Sir Roy Meadow[1] dates back to 1979, the sentiment still holds, although the challenges we face in delivering high quality undergraduate teaching in today's NHS are different.

CURRENT CHALLENGES AND PROBLEMS

Medical school teaching in child health has traditionally been focused on the clinical problems seen in children, as inpatients, in tertiary care teaching hospitals. In recent years there has been a move to reduce inpatient stays and develop a more ambulatory model, with children being seen in rapid access or review clinics, to try to minimise the frequency and duration of inpatient stays. It is therefore even more important that the teaching we offer in these outpatient settings is of high quality and exposes students to a wide range of paediatric health and illness profiles.

Current experiences of teaching in paediatric outpatient departments may be less than satisfactory for both students and clinicians. The traditional model of students 'sitting in' clinic alongside a specialist has the potential to be a powerful learning opportunity, but this may not always be realised. There may be insufficient time to teach due to the demands of service provision, a lack of available space for students to see patients on their own and, for the clinician, the feeling that there is no one else with whom to share the teaching load. Dedicated 'teaching clinics' are often perceived as a luxury in an NHS focused on service delivery.

To ensure quality of practice in the future care of children and young people, it is necessary that our medical students acquire competence in relating to children and their carers.

KEY ISSUES FOR THE STUDENT

Children's ages

Tomorrow's Doctors[2] states that "medical graduates should be able to communicate clearly, sensitively and effectively with individuals and groups regardless of their age". The diverse age range of our patient population imposes particular demands on students, who have to learn to relate to children of a different ages in addition to the inherent challenges of dealing with adolescent patients. This requires a portfolio of skills in communication and examination and repeated practice to achieve this goal.

Triangulation of consultations

Paediatrics differs from adult specialties in that one of the key aims of paediatric undergraduate attachments is to equip students with the skills to triangulate their consultation to relate to children and their families/carers. This can appear as a 'softer' learning objective for students who are often used to a checklist approach to learning skills. The students have to refine their skills in relating to more than one person and experience the challenges that this can sometimes create and develop strategies accordingly. The paediatric outpatient clinic is therefore perceived as a different, and potentially threatening, learning environment by students.

Facilities

The outpatient rooms need to be sufficiently large to accommodate children and their families and to provide sufficient space for medical students to actively participate in the consultation. Students put great store on seeing patients by themselves so, importantly, there must be a supportive environment conducive to learning with additional space for students to carry out some initial consultations.[3]

STRENGTHS AND OPPORTUNITIES

Alternative venues

Participation in clinical experiences leads to the development of practitioner confidence. Inpatient encounters are valuable but with reduced patient stays there is a need to widen and enhance all available learning opportunities for our undergraduate students.

The wider community affords opportunities to deal with a broad range of commonly seen child healthcare issues and placements should reflect the changing pattern of healthcare.[2] It is necessary to identify the venues which provide students with the opportunity to develop the core knowledge and skills as outlined in their paediatric curriculum.

Student access to sufficient numbers of children may be facilitated by using alternative venues such as:

- Community placements – general practitioners, special schools, mainstream schools and nurseries
- Other clinical specialties – orthopaedics, dermatology, surgical day case unit, radiology department
- Home visits – with specialist or community based nurses
- Child development centres
- Allied health professionals – physiotherapy/occupational therapy/speech therapy, dietetics, orthotics
- Waiting rooms
- Ward 'play rooms'.

Some venues have often been overlooked or underutilised and are untapped resources for teaching.

Educational concepts

The teaching and learning opportunities provided should include a holistic approach to child health. This will involve exploring common issues including core clinical problems, child health surveillance, and also exposure to neonatal and adolescent medicine.[4] In addition to this, there should be some insight into the role of community based teams; this may be under the auspices of clinical nurse specialists or community based nursing teams or by visits to educational institutions such as special schools or nurseries. By seeing children in a wide range of settings, students will be more aware of the impact of social factors on children's (and parental) health and their access to health services. A variety of educational strategies may be used to aid student learning, but these are not always widely known or appreciated and opportunities for staff development for teaching may not be able to compete with other demands on a clinician's time.

- **Empowering learners**: Simple introductory materials and face-to-face inductions can help students to be independent learners in an unfamiliar environment. They can orient students to the venue by providing a site plan, a list of staff members and a rough timetable of weekly activities indicating the learning opportunities available. Many students have an inkling of which career path they wish to follow and it is important to offer subspecialty experience, where available, to them during their child health attachment. For example, they could be provided with a list of visiting specialists (eg, cardiologists, paediatric surgeons and endocrinologists) or spend time in the radiology suite observing paediatric imaging and procedures.
- **Prelearning**: Learning is likely to be facilitated when students come to any new clinical teaching venue having been briefed about what to expect and having prepared themselves for the range of clinical cases they may encounter. Study guides are a good way of introducing students to the clinical problems expected and to direct their initial thoughts about the learning issues they present.[5] In an outcome-based approach, a wide variety of learning outcomes may be identified in the experiences available and can be actively identified by tutors. For instance:
  - Examination skills
  - Multi-professional care – reinforced by a visit to diabetic clinic, for example
  - Data interpretation
  - Diagnostic and management decisions
  - Counselling/communication skills.
- **Structured learning**: Log-books can be used to direct student learning to required outcomes or desired learning aspects of a clinical problem. They can also provide a way for students to document what they have seen and learned prior to assessment.[5]
- **Virtual patients and tutorials:** These can be used to supplement the student's clinical experiences. As the clinical problems with which patients present are often unpredictable, virtual patient problems or recorded case presentations or tutorials can be used to provide additional learning material or to augment cases seen.
- **Collaborative learning and multidisciplinary input:** Opportunities can be created for students to work together in the clinical setting to solve diagnostic or management problems. Clinical activities with other members of the healthcare team are another way of diversifying learning.

Staff development requirements

As clinical teachers we have opportunities to provide information, to help students learn and to be professional role models.[6]

We may also have opportunities to assess clinical competence, but this is more difficult to do in the context of the outpatient department (see problem scenario 3 below).

Knowledge of the medical school curriculum and its educational objectives are required to help clinicians focus tuition towards the most student-relevant objectives and should be readily available from the medical school or university website.[7]

How to facilitate or stimulate student learning, carry out short, focused, on-the-spot assessment of student performance,[8] using for example the mini-CEX,[9 10] and then give constructive feedback, are all skills required of the clinical tutor. Of these, student assessment is the most difficult to

find time to carry out in the context of the outpatient department (OPD), but may be a more feasible option than performing a workplace-based assessment during a frenetic post-take ward round.

The medical school may provide resources for staff development for teaching by offering short courses for attendance or for distance learning.[11] However, accessible, practical help for aspects of clinical teaching at the moment of need is also appreciated. The *Getting started...*[12] series of booklets recently commended by the General Medical Council[13] provides on-the-spot instruction for effective teaching in a range of clinical teaching venues.

Putting it into practice

What to do before you start

Scene setting

- Ensure children/young people and their families are aware that medical students may be present during their consultation and allow them to decline
- Create a welcoming environment for students[14]
- Ensure outpatient nurses are aware of student attendance and provide them with a list of student names and/or photos.

Preparation

- Check beforehand that visiting specialists are not bringing their own trainees along to the clinic to which you have assigned students. Have a 'back-up' option for the students should this happen, or if their timetabled session is cancelled for whatever reason
- Involve nursing staff in devising the student programme/timetable
- Identify a 'link' person (medical or nursing) for each timetabled session.

What to do during the teaching session (delivery)

- Identify inter-professional learning opportunities
  - Nurse-led activities may include: urinalysis, weighing and measuring then plotting growth parameters, blood pressure measurement
  - Nurse-led clinics – for example, asthma, enuresis, etc
  - Dietician/therapist teaching.
- Use any available space – is there a free room for a student to see a patient/family on their own?

What to do when it is over

- Summarise at the end of the session. Suggest and agree further reading/development to reinforce key points[14]
- Ask yourself (and the students!) what went well and what didn't go so well. How could you do this better next time?

Food for thought

Most clinicians will probably be expected to continue to deliver undergraduate teaching while being under increasing pressure to see more and more patients in the OPD setting.

- **Teaching venues:** It would be helpful if opportunities in other ambulatory care venues could be made available or if a dedicated ambulatory care teaching space could be provided.
- **Paediatric nurse educators:** Could you recruit an experienced nurse or other healthcare professional, with an interest in education, to deliver some teaching? Paediatric nurses have a wealth of experience in caring for children and their families and can offer useful teaching on many clinical domains, in addition to communication skills teaching. They often have longstanding and rich relationships with many children and their families. They can facilitate access for students to these families and also provide students with honest, formative feedback about their performance from this 'expert patient and parent' cohort.
- **Volunteer patients:** The provision of volunteer 'real' patients has proved invaluable in these situations in other centres[15 16] and the idea could be extended to provided volunteer 'real' families to visit, at home, where students could explore the impact of chronic illness on family life.
- **Adolescent consultations:** Use the outpatient setting to highlight the differences between consultations with younger children and with adolescents (see box 1). It is important to stress the fact that consultations with adolescents can provide communication challenges. They may have different priorities, consent and confidentiality issues can arise and sometime their problems can appear insoluble.[17]
- **Use of interpreters:** In response to our increasingly multicultural society, we need to train our future practitioners to have the skills to communicate effectively with non-English speaking patients and their families. The outpatient setting can offer the ideal opportunity for students to gain experience of consultations with the help of a trained interpreter. Ask students to reflect on the consultation:
  - How did I structure my consultation when the interpreter was present?
  - To whom did I address my questions?
  - How did I arrange the seating?
  - What about my body language?

  in addition to directing them to useful references such as *How to do it: work with an interpreter*,[18] which can maximise the learning opportunity.

Box 1 Adolescent consultations

Ask students to think about:

1. The appropriateness of the environment/facilities for young adults
2. Who is in charge of the consultation?
3. Should you see the young person on their own, without their parent/s?
4. Triangulated consultation – patient/parent/doctor focus
5. Strategies used by the clinician to empower the young person
6. Transition to adult services – at what age should this happen? How might the patients and their families feel?

PROBLEM SCENARIOS

1. You are 2 h into your busy clinic and have so far spent time teaching the medical student who has been with you. The nurse tells you that a parent has just complained that they have been waiting for 50 min. You have five case notes piled up representing waiting patients… you need to speed up, but what about teaching the student?

Possible strategies 1

Encourage the student to actively participate by:

- Clerking new patients themselves
- Weighing/measuring children and plotting their parameters on growth charts
- Viewing recent laboratory reports and deciding how they support a diagnosis or compliance with recent treatment
- Spending time in the play area of the waiting room
- Accompanying a family to the pharmacy and discussing issues related to their prescription, for example, use of a new asthma inhaler
- Discussing issues with specialist nurses, dieticians and therapists as these arise.

2. The students have identified a learning objective around developmental milestones that they would like to achieve by attending your clinic today. You are preoccupied with an on-going issue with a mother who has declined to see students with her child. How could the students work towards achieving their personal objective while you spend time with this family?

Possible strategies 2

Encourage the student to actively participate by:

- Spending time with a child to determine their developmental age (? in the waiting room play area)
- Observing children at play
- Using felt-tips and paper in the waiting room and observing children's fine motor skills at different ages
- Giving the student the task of working out which shapes young children are able to copy at various ages.

3. You don't often hear from your medical school but today the new medical school secretary has sent you a copy of the recent student feedback on their placement in your paediatric unit as part of a quality assurance process. Although students have enjoyed seeing patients with you in the OPD, you feel annoyed that they complain that they have not had opportunities to see children by themselves or to be assessed by you on their interview and physical examination skills. Not surprisingly, you feel that such a request is going to be difficult to accommodate in the context of the paediatric OPD. How can your paediatric clinical group respond to these comments?

Possible strategies 3

- Invite the teaching dean of the medical school to visit your trust to give an update on what interview and physical examination skills the curriculum requires students to achieve during their child health attachments
- Arrange a lunch time meeting with your paediatric colleagues to review the resources of space, tutors and time available for student teaching in the paediatric OPD
- Consider whether a separate space or a different time could be made available to provide individual students with the opportunity to carry out aspects of a child/parent interview or a mini-CEX focused clinical examination procedure
- Arrange to attend a staff development day focusing on the role of formative assessment and feedback. Contact your local deanery/medical school for details of courses/study days.

4. You have spent the first half of clinic seeing a plethora of young children with a variety of clinical problems and have been involving the attending medical student accordingly. You notice the next patient on your list is a 14-year-old girl, Zaira, whom you recently saw on the ward with 'chronic abdominal pain'. How can you harness this opportunity to optimise student learning around consultations with adolescents?

Possible strategies 4

Encourage the student to actively participate by saying:

- During the consultation I want you to consider the strategies/phrases I use to help me ask sensitive questions of 14-year-old Zaira.
- I want you to listen to the history given by Zaira and tell me what you think are her, and her parents, main concerns. Are they the same? Did I address them?
- How did her demeanour, or her willingness to talk, change when we saw her without her parents?

SUMMARY

The arena of paediatrics and child health can provide plentiful and rich opportunities for student learning. With adequate preparation and by utilising the different learning environments available, we can ensure that students have a varied

and comprehensive placement, which will equip them with the necessary core skills in paediatrics. Good undergraduate training in paediatrics has implications for our future work force, in that students who experience enthusiastic and stimulating training in paediatrics may be more likely to become paediatricians.[19 20] We owe it to our patients to help train 'tomorrow's doctors' to be child-centred in their approach, be they general practitioners, orthopaedic surgeons or paediatricians.

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