

BEDSIDE TEACHING

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INTRODUCTION

'Like old Alcibiades said: *He who does not teach, a dubious expert is!*

AIMS

The aim of this article is to provide a background to the wide range of factors that influence a teaching/learning programme in clinical settings, paying special attention to bedside teaching and taking into consideration the student's perspective.

OBJECTIVES OF BEDSIDE TEACHING

The main objective of bedside teaching is the teaching/learning of *attitudes and skills related directly to the patient* who is present during the learning exercise. This was so ably expressed by the renowned 17th century physician Sylvius:

"My method ... (is to) lead my students by the hand to the practice of medicine, taking them every day to see patients in the public hospital, that they may hear the patient's symptoms and see their physical findings" (*Sylvius, in Linfors and Neelon, 1980, p. 1231*).

There are **five** fundamental objectives in any bedside teaching interaction:

1. Base all teaching on data generated by or about the patient;
2. Conduct bedside rounds with respect for the patient's comfort and dignity;
3. Use bedside teaching particularly for the learning of psychomotor skills; and
4. Provision of feedback to learners during bedside teaching,
5. Transmit values of the profession and your enthusiasm for patient care

UNIT OUTCOMES

On completion of this unit you will be able to:

- Plan an effective bedside teaching session that meets the needs of all participants in the interaction.
- Conduct a bedside teaching session using methods that promote active participation
- Promote reflective activity in your clinical teaching
- Provide effective feedback
- Serve as a role model in dealing with ethical and professional issues at the bedside
- Conduct an assessment of learning in clinical settings
- Reflect upon your own teaching and consider ways to increase your effectiveness

Bedside teaching has long been considered the most effective method to teach clinical skills and to have numerous other benefits such as ethics, humanism and professionalism, communication skills and role modelling. It is a form of interpersonal communication between a teacher and a learner who are *both* involved in a dynamic relationship. To be successful it requires that the teacher understands four important factors in this relationship:

1. The role of the teacher and the knowledge, attitudes and skills of the teacher
2. The role of the learners and the experiences and knowledge that they bring to the relationship,
3. External influences which influence the teaching-learning process, and,
4. The nature of the interaction between teacher and learner.

This interaction takes place in any field of clinical practice, be it a hospital ward, outpatient department, old age home, or community setting where learners interact with patients.

THE LEARNING ENVIRONMENT

In what may be called the natural method of teaching, the student begins with the patient, continues with the patient and ends his study with the patient, using books and lectures as tools, as means to an end. For the junior student in medicine and surgery it is a safe rule to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself

Sir William Osler 1903 – *quoted in Bliss (1999)*

Medical students learn in a wide range of settings: at the bedside, in the wards, the community, in outpatient clinics and in office practice. They use books, journals, computers, videos, television, laboratories, microscopes and dissection. But in clinical settings, they mostly watch doctors carrying out the tasks they will themselves undertake when qualified. Once students have qualified, learning continues along with clinical experience, often unstructured, hurried, and with poor learning. In a recent study Nendaz and Bordage (in Bligh 2002) wanted to find out more about how students learned rather than what they learned. The variables investigated in the study included space for examining patients, the number of students involved, organizational quality, patient mix and supervision provided. *While each of the variables was important, it was the influence of supervision that emerged as the most important factor, suggesting that 'sitting and watching' in the outpatient department is a lot less useful than 'doing' and receiving feedback on performance.*

Bedside teaching and learning is focused on, and usually directly involves patients and their problems in the health care environment. At the undergraduate level, medical schools strive to give students as much exposure to clinical learning as possible; in recent years they are also permitting student contact with patients at an earlier stage in their learning course. Also student numbers have increased considerably with an inevitable increase in the size of small groups and an ever diminishing pool of clinical tutors. The days of one –to –one clinical apprenticeships are all but gone. Furthermore the recent shift in focus to problem solving and problem- based learning is directing the attention away from teaching at the bedside; this is believed to be one reason for the decline in the clinical skills of student trainees.

For an inspiring narrative account of the bedside teaching round by Michael A LaCombe: click on this link:

http://cte.umdj.edu/clinical_education/clined_bedside.cfm

ACTIVITY 1

1. In what ways would you consider bedside teaching different from classroom teaching? Can you describe three advantages of this method of teaching?
2. Can you think of some of the problems that you encountered as a student during your clinical medicine block? Differentiate between organisational issues which impacted on, and those directly arising out of the teaching session. Check your answers at <http://bmj.bmjournals.com/cgi/content/full/326/7389/591>

TEACHING OPPORTUNITIES: TIME AND VENUE

For the above reasons the modern clinical tutor has much more to do than deliver a one hour tutorial per week, and is faced with the task of optimizing teaching and learning opportunities as they arise in daily practice. The modern tutor is being increasingly called upon to play a more holistic role in student education, ranging from course planning to evaluation and even curriculum design.

Learning opportunities need to be arranged so that there is minimal disruption to staff, patients, and their relatives in the ward. Teaching may be done on ward rounds (either dedicated teaching rounds or during "business" rounds). In preparation for their teaching session students should see patients on their own prior to the tutorial; it is preferable for students to work in pairs since they learn a lot from each other, and then report back. Key issues are careful selection of patients; ensuring ward staff know what's happening; briefing patients as well as students; using a side room for discussions about patients; and ensuring that all relevant information (such as records and x-ray films) is available.

At the outpatient clinic teaching during consultations is very appealing since students get a chance to see patients in the ambulatory setting, but students need to participate more actively if they are to avoid being bystanders. They may write down their thoughts about differential diagnosis or further tests. Alternatively they may see the patient alone in a separate room, and are then joined by the tutor. The student then presents their findings, and discussion follows.

CHALLENGES ASSOCIATED WITH BEDSIDE TEACHING

In a recent postal survey a London medical school (Hendry 2005) reported that numerous difficulties were encountered by hospital consultants participating in the teaching commitment. Although many consultants enjoyed teaching students, their ability to deliver high standards of teaching were compromised by time and resource constraints. For many the situation was aggravated by the perceived inadequate preparation of students for clinical practice. The shift away from a 10-15 week placement with a single firm to a more modular basis produced a 'fragmented curriculum'. Students are not longer seen as part of the firm – they no longer 'belong' to the team.

Some have argued that the development and implementation of integrated curricula, and the emphasis on self-directed learning have impacted on the learning of the core basic sciences, and that this has compromised learning in the clinical environment. Under half (43%) and only 15.7% of respondents felt there was sufficient time available to teach students at the bedside and in outpatient clinics, respectively. A recurrent theme was the difficulty of fitting teaching into existing workloads. Many consultants noted that this prevents them from having enough time *to get to know their students*.

Since most clinical teaching takes place in the context of busy practice, with time at a premium teaching models that use time more effectively need to be adopted. Refer to unit 5 for one such

model, the "one-minute preceptor," which comprises a series of steps that form an integrated teaching strategy. Also read an account of the challenges of teaching in the changing learning environment at the UBMS: R G Hendry et al (2005) Consultant attitudes to undertaking undergraduate teaching duties: perspectives from hospitals serving a large medical school (*Medical education*; 39: 1129-1139)

Common problems with clinical teaching sessions

- Lack of clear objectives and expectations
- Focus on factual recall rather than on problem solving skills
- Teaching pitched at the wrong level
- Passive observation rather than active participation of learners
- Inadequate supervision and provision of feedback
- Little opportunity for reflection and discussion
- "Teaching by humiliation"
- Informed consent not sought from patients
- Lack of respect for privacy and dignity of patients
- Non-alignment with the rest of the curriculum

HOW DO DOCTORS TEACH AND STUDENTS LEARN

A recent study (Macdougall 2005) of 10 experienced medical teachers revealed that medical teaching is, in fact, learned by observing others. It is the teachers' previous experiences as student learners that influenced their subsequent development as teachers. Their training was mostly unsupervised and rarely assessed. However, all described an emotional response to teaching that supported their enthusiasm for teaching. The sobering thought is that medical teachers have little or no formal training in the pedagogy of modern educational theory and principles.

It is therefore not surprising that a paper from Toronto showed that teaching by intimidation and humiliation is still prevalent in surgical training. Elnicki and colleagues (in Spencer et al 2005) surveyed medical students completing an internal medicine and found that 11% reported some kind of abuse; less than one-third had reported the episodes to someone for fear of retaliation. Work-place bullying is still present. Potential consequences included a poor learning environment, and feelings of depression, anger and humiliation. Musselman (2005) et al's paper highlights that there is more to do specifically to deliver good quality surgical training in a conducive and supportive learning environment, recognizing that an educational rather than punitive approach is most likely to succeed. In the UK 'training the trainers' courses are encouraging teachers and trainers to move away from the 'see one, do one, teach one' approach, and are actively discouraging teaching by humiliation.

Suggested Reading

- Jane MacDougall & Mary Jane Drummond (2005):The development of medical teachers: an enquiry into the learning histories of ten experienced medical teachers. *Medical Education*: 39: 1213-1220
- John Spencer & Tom Lennard (2005) Editorial: Time for gun control *Medication Education* 39: 868-869
- Musselman LJ et al (2005)You learn better under the gun: intimidation and harassment in surgical education *Medication Education*, 39, pp926-934

Challenges of clinical teaching : organisational

- Time pressures
- Competing demands: clinical (especially when needs of patients and students conflict); administrative; research
- Often opportunistic: makes planning more difficult
- Increasing numbers of students
- Fewer patients (shorter hospital stays; patients too ill or frail; more patients refusing consent)
- Often under-resourced facilities
- Clinical environment not "teaching friendly" (for example, hospital ward)
- Poor rewards and recognition for teachers

EXPERIENTIAL LEARNING

The basic tenet of the experiential learning theory is that learning is often most effective when based on experience. Spencer (2003) has described how the Kolb learning cycle **which links** concrete experience with abstract conceptualisation through reflection and planning (see experiential learning in the previous session) may be applied in the clinical situation. Reflection is standing back and thinking about the experience (What it meant, or felt and how it relates previous experience?) Planning involves anticipating the application of new skills in the future encounters. (What will I do next time?). The experiential learning cycle provides a useful framework for planning teaching sessions.

THE ROLE OF THE TEACHER

In module 5 you were introduced to several terms that were used interchangeably with the term clinical teaching. *Those terms include clinical supervision, preceptorship, mentoring and student clinical accompaniment.* Many medical educators think that the only role of the teacher is to be a reservoir of knowledge and skills that have to be imparted to students. Ullian (in Schwenk) found that excellent clinical teachers assume multiple roles in their interactions with their students: that of Physician, Teacher, Supervisor, and Person.

Spencer (2003) views the *Physician* as the expert and the source of knowledge, who at the same time upholds professional standards as a member of a professional discipline. As a *Teacher*, the medical educator is acutely aware of the needs and aspirations of students. The Teacher can listen, question, paraphrase, encourage or doubt students but cannot always provide for them. As a *Supervisor*, the medical educator demonstrates procedures, provides practice, observes and assesses performance and provides feedback. Finally, as a *Person*, the educator develops an atmosphere of sufficient trust that the students are comfortable sharing ideas, feelings and thoughts.

How to use cognitive learning theory in clinical teaching

Help students to identify what they already know

- "Activate" prior knowledge through brainstorming and briefing
- This may mean getting students to read around a topic before exposure to a clinical experience

Help students elaborate their knowledge

- Provide a bridge between existing and new information using clinical examples
- Progress from a concrete clinical experience to formulation of abstract concepts
- Presentation: gives the student an opportunity to articulate in the language of the discipline
- Promote discussion and reflection by getting students to engage in the summarizing process
- Feedback : links practice with theory and highlight gaps in understanding which need to be addressed by appropriate reading

Planning: Help students apply learning in new situations

- Provide relevant but variable contexts for the learning
- "What have I learned?" and "How will I approach such a patient next time?" Such questions prepare students for the next encounter and facilitate
- Evaluation of the session

Effective teaching depends crucially on the teacher's communication skills, which include questioning and giving explanations, attentive listening, and encouraging learners to express their difficulties.

How to use questions

- Restrict use of closed questions to establishing facts or baseline knowledge (What? When? How many?)
- Use open or clarifying/probing questions in all other circumstances (What are the options? What if?)
- Allow adequate time for students to give a response
- Follow a poor answer with another question
- Resist the temptation to answer learners' questions—use counter questions instead
- Statements make good questions—for example, "this may not be easy to understand" instead of "Do you understand?" (which may be intimidating)
- Be non-confrontational—you don't need to be threatening to be challenging

Explaining and Questioning

Teaching usually involves a lot of explanation. Often "thinking aloud." is a powerful way of "modelling" professional thinking, giving the novice insight into experts' clinical reasoning. There are close analogies between teacher-student and doctor-patient communication, and the principles for giving clear explanations apply. Like mentoring listening may be the teacher's most powerful intervention. Listening and appropriate questioning help the student to voice ideas and to engage in reflection. Closed questions (questions that test recall) may elicit no response at all (for fear of the listener being wrong). Open questions are more likely to promote deeper thinking. Clarifying and probing questions help the learner in understanding and reaching self-realisation.

How to give effective explanations

- Check level of understanding before you start, and as you proceed,
- Give information in small manageable amounts
- Put things in a broader context when appropriate
- Summarise periodically ("so far, we've covered . . .")
- Checking their understanding at the end by asking learners to summarise
- Have a take home message,
- Ask students to give you feedback on what has been learnt

THE ROLE OF THE PATIENT

Traditionally patients have played a passive role in the learning process. In present day learning the patient is seen as an opportunity not only to tell their story and show physical signs, but they can also give a better insight into their problems (currently the rheumatology department runs a patient-partner programme in which patients demonstrate their physical signs of joint involvement to students).

Also, through their interactions with patients, clinical teachers have a powerful influence as role models on learners. Bedside rounds can be used for demonstrating the psychosocial interaction between doctor and patient as the physician attempts to educate and reassure them, while maintaining their respect and dignity. Linfors and Neelon (1980) found that 95 percent of patients saw bedside rounds as a positive experience. They offer the opportunity for demonstrating psychosocial techniques of physician- interaction while learners observe directly.

PROFESSIONALISM

In addition to medical knowledge and skills, medical professionals should present psychosocial and humanistic qualities such as caring, empathy, humility and compassion, as well as social responsibility and sensitivity to people's culture and beliefs. Respecting the patient's trust in the physician implies adherence to a set of values, which include acting in a patient's interest, and being responsive to the health needs of society, while maintaining the highest standards of excellence in the practice of medicine (Professionalism). In one study of physicians' teaching behaviours a resident commented : "He has this very deep concern for people's total well-being: physical, emotional, psychological, and spiritual. It is something that you have, and can develop, but it can't be taught except by example" (Mattern et al., 1983, p. 1131).

Ethical issues with patients

- Is it necessary to have a discussion at the bedside?
- Always obtain consent from patients before the students arrive
- Brief the patient about the purpose of the teaching session, level of students' experience, how the patient is expected to participate
- Ensure that students respect the confidentiality of all information relating to the patient.
- Involve the patient in the teaching as much as possible
- Ask the patient for feedback—about communication and clinical skills, attitudes, and bedside manner
- Ask the patient after the session— whether they have any questions, since sensitive issues may have been raised

SUGGESTED READING

- Cox K. Planning bedside teaching. (Parts 1 to 8.) *Med J Australia* 1993;158:280-790
- Parsell G, Bligh J. Recent perspectives on clinical teaching. *Med Educ* 2001;35:409-14.
- Wayne Ramsey & Cathy Owen (2006): Medication Education, 40: 95-96

THE ROLE OF THE LEARNER

All sorts of anxieties, fears and needs influence and interfere with learning in learners. Self-esteem and self efficacy are important motivational factors in the learning process? Awareness of different types of learners, and appropriate adjustment of the teacher's style will be helpful. Mann et al. (1970) have described five types of medical students with different learning styles:

1. **The Compliant Students** - These are the typical "good" learners who work hard and are primarily concerned with understanding the material and complying with teacher requests.
2. **The Anxious Dependent Students** - This type is dependent on the teacher for knowledge and support and anxious about evaluation. The feelings of anxiety and incompetence block these students from actively learning and make them more concerned about grades. They are difficult to engage in discussion, and prefer lectures.
3. **The Independent Students** - These learners seem confident and they favour peer relationships with the teacher and approach the material in calm, objective, and often creative ways. Older medical students with previous graduate work often fall into this category.
4. **The Uninvolved Students** - These learners are uninvolved due to a low level of self-esteem and pessimism about being able to form productive relationships with authority figures.
5. **The Silent Students** - These learners are characterized by what they do not do. They feel helpless and vulnerable, but without the anxiety characterizing the anxious-dependent learners.

ACTIVITY 2

Cast your mind back to the days when you were a student in the wards. How would you describe yourself as a learner? Did you fit into one of the above categories/ Or did you exhibit more than one of the features?

TASK 1

Describe one or two interventions that you would use to address the difficulties faced by students 2, 4 and 5 and which would help them reach category 3.

PLANNING THE TEACHING SESSION

One of the most important principles of good teaching is the need for planning. Planning provides structure and context for both teacher and students, as well as a framework for reflection and evaluation. Preparation is recognised by students as evidence of a good clinical teacher. Structural changes may be made to one or more areas of the bedside tutorial format in order to encourage deeper learning styles. In a recent masters project the structure and format of the bedside tutorial was changed by:

- Allocating a time frame
- Defining teaching aims
- Involving all members in the student group
- Enhancing their abstract concept formation by relating it to visual (concrete) constructs.

Surprisingly students found the organizational changes very appealing because it cut down on time wasted looking for patients and the students were able to focus on their goals for the session. They remarked that setting timelines for the presentation allowed them enough time for active participation and group discussion. The fact that they were all involved in the activity eliminated the boredom of a single student presenting for an hour and encouraged co-responsibility for the discussion period. As a result students felt productive and experienced feelings of self-efficacy. Affective factors had contributed significantly to the success of the bedside teaching. (Naidoo 2004)

TECHNIQUES FOR BEDSIDE TEACHING

The techniques useful to the clinician who wants to be a better bedside teacher can be organized according to the four objectives of bedside teaching.

Base all teaching on patient data.

To extend the previous quotation from Sylvius, "I question the students as to what they have noted in the patients and about their thoughts and perceptions regarding the cause of the illnesses and the principles of treatment" (Linfors and Neelon, 1980, p. 1231).

Case presentations should be made succinctly, so that all data bearing on a particular problem be presented together, but not all problems need necessarily be discussed. Ground rules for presentation should clarify time lines. The presenter should give a clear overview of the patient's situation, and time must be allowed for questions. Should the discussion deviate from the patient, the tutor may point out the need to return to the issue at hand.

Conduct bedside teaching with concern for the patient's comfort and dignity.

Like Sir William Osler advocated in the early 1900's, one should personally examine the patient while at the same time reassuring him. Most patients find bedside rounds to be a positive experience. Linfors and Neelon found that patients wanted the attending physician to introduce himself, to state the purpose of bedside rounds, and to be sensitive to the need to translate technical terms. They suggested following guidelines:

1. Common courtesy: ask the patient for permission and introduce teacher, learners and the proposed activity,
2. Physical examinations and procedures are performed and practised with appropriate explanation and patient exposure.
3. Conversations is made in a way that the patient is included and understands, such that the patient is actively engaged in a three-way dialogue with the teacher and learners, and
4. A student sees the patient afterward, to clarify any concern or misconception

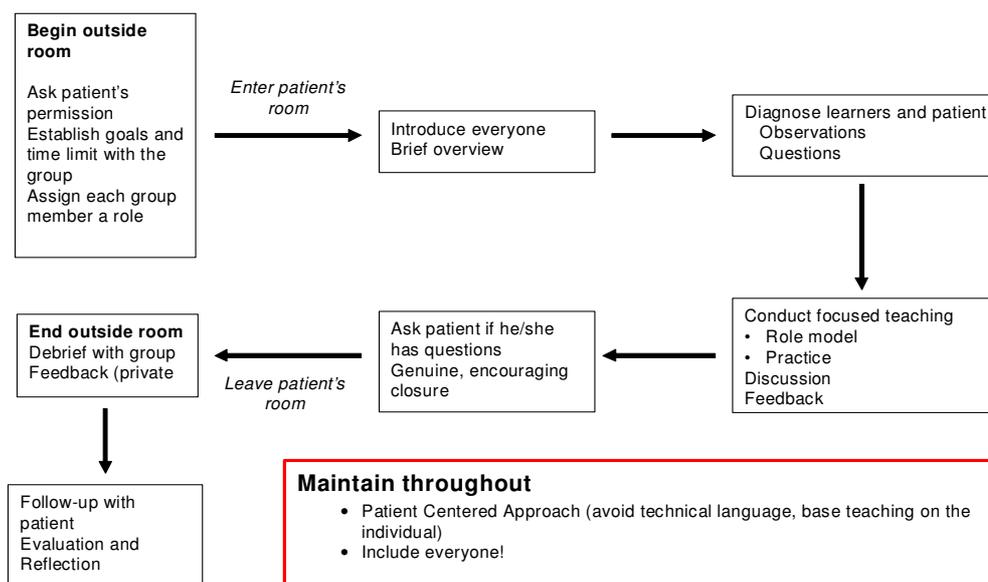
Use bedside teaching opportunities to demonstrate and practice medical and surgical procedures.

The teaching of skills psychomotor skills traditionally according to the old surgical dictum, "See one, do one, teach one." needs more emphasis on practice, so that the revised dictum holds more true: "See one, do one, **do many more**, teach one."

Many medical and surgical procedures are actually a series of sequential steps, each of which must be performed correctly and in proper sequence. In order to teach these procedures effectively, it is important that they be broken into their components which makes learning easier For lengthy procedures it is worthwhile demonstrating the last step first, especially when outcomes are not obvious to the learners

Use bedside teaching as a special opportunity to give learners feedback.

"Feedback" refers to the process of giving learners information about current performance so that they may improve it in the future. Feedback can be either positive or negative. Positive feedback is given to reinforce good behaviour, and negative feedback is used to change bad behaviour. It is important not to confuse positive feedback with compliments and negative feedback with criticism.



Adapted from Janick RW. (2003). Teaching at the bedside : A new *Medical Teacher*, 25, 2, 127-130

CLINICAL TEACHING FOR ROLE COMPETENCE

Discrete psychomotor skills can be taught and learnt in a laboratory setting. For instance, a student can watch a demonstration of a blood pressure being taken, practice it on a friend until the reading is accurate time after time, and be “skilled”. However, professional competence extends far beyond proficiency in a list of psychomotor skills. Mansfield and Mathews describes the competence of a professional as involving the following:

- Technical skills (taking the blood pressure)
- Contingency management skills (what to do when the stethoscope is missing)
- Task management skills (which blood pressures to take and which to leave when the workload is extremely heavy)
- Role environment skills (How to take the blood pressure of a confused patient without putting yourself and the patient at risk).

The clinical setting is the only place where the student can learn the complex roles of a health professional by combining all these skills in a safe environment. Such “safety” is provided by the skilled role model supervising the student, and assisting when necessary.

Example of learning a task management skill:

“I will never forget how a red-headed ward sister in my training hospital taught me an important task management skill by teaching me to observe what is going on in a medical ward in three quick top-to-bottom steps:

1. Check the intravenous containers – are they all still full?
1. Check the patient – are the faces content and healthy?
2. Check the urine/drainage bags – is there a problem there?

“I have always found these three steps very useful in prioritizing my patient-interaction.”

Usually, students are taught psychomotor and even interpersonal skills (such as history taking) in a laboratory setting in the first instance. They then practice the skills in that “ideal” setting until they are competent in the skill. When the student then gets into the clinical setting, a very different process ensues:

1. The student has to decide when a specific skill is needed, and then use it. This usually includes assembling the resources independently, which may be very different story from the equipment being provided in the laboratory setting. This might include interaction with other team members, negotiating the use of certain equipment and the timing of the use, and making decisions about “making do” or taking action for the correct equipment to be made available.
2. At the patient’s bedside, the student has to negotiate the procedure with the patient and then adapt the skill to the particular patient. This might mean doing the procedure differently, at a different time, with more assistance, etc. Completion of the task also includes recording the completion of the procedure in the correct document and according to the prescribed practices of the institution.
3. Finally, the results of the procedure have to be interpreted in the light of the student’s knowledge of the specific patient. This might mean studying the patient’s record, asking some questions if the information is not in the record, and doing further investigations. The decisions involved in this stage of the task, may be very complex and students need to learn how to put together their previous knowledge with the information from the specific patient to make care decisions.

Hurst notes that "the time physicians and students spend with patients should be devoted entirely to the patient. Each patient is unique, and what each says and reveals must be listened to and studied carefully" (Hurst, 1971, p. 464). In all cases teaching is focused on history and physical examination findings, paying special attention to applying skills and knowledge to the specific patient, and demonstrating appropriate interpersonal skills and attitudes.

Teaching at the bedside provides the only opportunity for the application of this model in the teaching/learning of professional competence. When clinical problem solving is described in the absence of the patient students lose the opportunity to relate problem-solving to the clinical examination which provides the necessary scaffolding to reinforce their learning (Weiner and Nathanson, 1976).

ACTIVITY 3: ORGANISING A BEDSIDE TEACHING SESSION

You have been asked to conduct a one hour bedside teaching session on how to do the cardio-pulmonary assessment of adult patients. Your tutorial group comprises 6 students. Detail the processes involved in preparing for this tutorial. Indicate how you would go about teaching this session to the group.

Suggested Plan

Introductory Phase ("See One")

1. State the objective of the teaching about to be done, and the specific performance that is expected at the conclusion of the teaching. "The purpose of this session is to teach you how to perform the cardio-pulmonary assessment of adult patients and I expect all of you to perform one assessment satisfactorily at the conclusion of the session."
2. Explain the rationale and importance of the task. "The cardio-pulmonary assessment is one of the most common components of a patient assessment and you will be doing this daily in your career as health care workers."
3. Make sure that the students have practiced the discrete psychomotor skills in the laboratory setting (taking a blood pressure, listening to heart and lung sounds, taking a pulse). Ask the students to get the equipment together for a full assessment.
4. Introduce the first patient and demonstrate the entire skill. Ask the students how the procedure differed from what they have done in the laboratory. Why were these adaptations necessary?

Practice Phase ("Do One")

5. *Give specific instructions on what to practice and how.* "I am now giving every pair of you a patient. I'd like you to decide which cardio-pulmonary tests you will do in this patient and why, and how you will adapt the procedure and why".
6. Observe and practice closely, but refrain from interrupting unless the student is endangering the patient.
7. *Provide generous quantities of feedback generated by the learner, his peers and the instructor (in that order).* "Now let us get together and see what you experienced." Let each group report what they found. Ask them to compare findings and decisions. Also deal with an interaction you did not give by asking "How did you explain to the patient what you are doing?" and "How did the patient participate in the assessment?" This is important in order to reinforce the essential interpersonal and attitudinal competence. Use your own observations of what they did to augment their own reports.

8. *Allow a period of independent practice time.* "I'll be out of the room for about 15 minutes and want each of you to choose another patient and go through the same process independently."
9. *Reinforce learning:* Get together again and answer any further questions. Spend time with students who are experiencing trouble with a specific skill.

Perfecting Phase ("Do Many More")

10. Provide precision practice under realistic stress situations. "During the next four weeks of your clerkship, I want you to perform 10 cardiopulmonary assessments needed by your ward team."
11. Prompt and give feedback only rarely. "You did a good job on that assessment. Are you quite sure about how to assess peripheral circulation?"

REFLECTIVE LEARNING AND EVALUATION

This model of learning is based on the principle of gaining from the learner's own experience and is significantly different from the traditional model of undergraduate education. Students use their knowledge, skills and attitude to solve problems in the workplace. Many of these problems create surprises. Students review these problems and create alternative hypothesis through a process of "reflection in action." (*Schon*) This leads to a search for more information, followed by a further step which takes place after the problem has been solved - a process of "reflection on action." (*Schon*) The process of reviewing and evaluating information leads to learning and this adds to expertise.

Atkins and Murphy (1995) described three important stages in the reflective process: self-awareness, critical analysis, and the development of a new perspective (synthesis and evaluation). Clinical teachers should not only help students to develop clinical competency but also help to create an environment conducive to reflective learning. This requires that clinical teachers be competent in exercising reflective skills and be able to facilitate learning in different clinical settings. Through such a process, both teacher and learner can continue to develop their teaching and clinical practice and expand their knowledge to wider horizons.

The model proposed and refined by Atkins and Murphy (1995) is attractive in its simplicity. Because of its systematic approach, it is easy for both teachers and students to follow and apply this model in the real-life situation. The tutor should encourage group dynamics for discussion and reflection. Asking students to pair up and take equal amounts of time listening to each other as they think aloud is effective in ensuring that reflection has occurred in the learning process.

'Talking through one's ideas with the thoughtful attention of another person is a powerful way of clarifying confusion, identifying appropriate questions and reaching significant insights.' (Knight S)

A participatory approach demands that greater emphasis should be placed not just *on workplace activity* but also on reflective practice which includes peer group interaction. The obvious solution is therefore to organize things so that the students could listen to each other. One-to-one talking without interruption occupies a central position in the course design and sustains reflective thinking. In this way, it directs student learning and encourages reflection

It has been found that use of diaries or journals promotes reflective learning skills and critical thinking (Patton *et al* 1997 in *Lau 2002*). The content of diaries should focus on any specific event or experience relating to patient problems. The students are given freedom to decide when and what to record in their diaries during their clinical block in the wards. Both diaries and journals serve the purpose of addressing the feelings of students concerning any critical events during their clinical experience (Atkins & Murphy, 1995).

SELF- AND PEER-REFLECTION FOR CLINICAL TEACHERS

Clinical teachers should be familiar with the process of reflective learning in order to apply this technique in the analysis of their teaching strategy. Self-reflection, and the feedback of students as well as peers, will enable them to question teaching principles and integrate theory and practise in teaching. However it does require teachers to confront the negative aspects of their teaching and reflect honestly on perceptions of their teaching style.

EVALUATION

An important learning objective of bedside teaching is the opportunity that the teacher has to *evaluate the learner*. The bedside is the best place to obtain first hand knowledge of the learners' abilities and difficulties. Both verbal and non-verbal cues point to uncertainty on the part of the learner, and can be addressed by the teacher. This is where bedside teaching provides the opportunity to provide timely feedback to learners so that they can adjust their learning. In a survey of medical students about the purposes and fairness of assessment almost all students agreed that ensuring competence was an important purpose of assessment, but they expressed the desire for more feedback on performance in order to guide future learning.

COACHING AND FEEDBACK SKILLS

Bedside teaching lends itself to the giving of feedback, almost immediately, both positive and negative, and is a critical part of the bedside teacher's job. Feedback has both formative and summative purposes, and both have value at the bedside.

For feedback to be effective, it should be *descriptive* rather than evaluative (judgmental). Descriptive feedback is more helpful because it factual, less challenging and provides a good starting point to suggest ways for improvement. Second, feedback should be as *specific* as possible. Third, feedback should be *well-timed*., meaning that it should be delivered as soon after the event as possible. The typical evaluation of medical students is seen by them months after a course or rotation, when students have long forgotten the event.

Effective coaching skills can easily be remembered by the mnemonic BEST for easy recall and application in the work setting(Reilly & Oermann, 1992)

- **B**ehaviour
- **E**ncouragement
- **S**pecific feedback
- **T**imely feedback

Here, **behaviour** of students refers to the skills that they are expected to demonstrate in delivering safe and competent patient care. When deviation from safe practice behaviour is observed by clinical teachers, they should point it out to the students as soon as possible. **Encouragement** should be given by clinical teachers for students' clinical performance. Comments on expected behaviour to be corrected or improved should be given by the clinical teachers to improve students' clinical skills. **Specific feedback** for correcting any nursing practice by students that is not up to nursing standards must be given explicitly by clinical teachers, with the aim of facilitating students to improve their nursing skills. When pointing out a weakness in clinical performance, clinical teachers should remember that positive comments regarding students' strengths must be encouraged and reinforced first, before further comments are made to correct mistakes or suggest improvements. **Timely feedback** should be given while the event is still fresh in the memory of students and clinical teachers, as this will facilitate the acquisition of new understanding by both. In this way reflective learning skills and critical thinking may be exercised.

Feedback - Helping Each Other Improve

Feedback to the Student

- Timing is crucial: should be given as soon after the event as possible. Given “on the run” it is often misconstrued.
- If the feedback is sensitive, wait for an appropriate time and use specific examples of observed behaviours in a private setting.
- Ask the student for his impression first, once you have identified a weakness:
- Get cooperation:
- Ask the student what would help him do better, placing the onus on him
- Be specific:
- Always try to relate the feedback to a specific example or observation. Help the student understand why you are perceiving him/her in a given way.

Student Feedback to the Tutor

- Ask the student for specific feedback during the clerkship. This will confirm your approach or make you modify your teaching approach

Feedback from a Critical Friend

- Ask your teaching colleagues who have also observed your teaching for their critiques and tips on your teaching performance.

Site visits by the HPCSA for accreditation

For a discursive account on feedback click on Schwenk, T.L. Clinical Teaching: Retrieved from <http://www.crlt.umich.edu/publinks/occ1.html>

SUGGESTED READING:

- http://clerkship.fammed.washington.edu/teaching/CTHMain/Clinical%20Teaching%20Handbook.html#_Toc462724239
- Annie Kit Ling Lau, , Kai Cheung Chuk, and Winnie Kwok Wei So, (2002) **Reflective practise in clinical teaching** Nursing and Health Sciences 4, 201–208
- Additional Reading : Ramani S Twelve tips to improve bedside learning Medical Teacher 2003; 25(2)pp112-115

Twelve Tips to improve bedside teaching

Key Strategies involved in bedside teaching

Pre-rounds	Preparation Planning Orientation
Rounds	Introduction Interaction Observation Instruction Summarizing
Post-Rounds	Debriefing Feedback Reflection Preparation

ACTIVITY 4

Can you remember your bedside teaching sessions that you had as a student? List some of the difficulties you encountered as a student.

Barriers to bedside teaching

- Fear of patient discomfort
- Lack of privacy/confidentiality
- Patients are often hard to locate (gone for tests/procedures)
- Learners do not want to go to the bedside
- Takes more time
- Teachers feel uncomfortable in a specific field
- Lack of privacy/confidentiality

CONCLUSION

Bedside teaching is an intense personal and interpersonal experience. It is perhaps the most enriching, intimate form of teaching that a tutor can do. It requires considerable enthusiasm and commitment on the part of both teacher and learner and is governed by certain rules and principles which extend to all clinical settings that involve the patient.

Advantages of Bedside Teaching

- Opportunity to gather additional information from the patient
- Directly observe student's skills
- Role model skills and attitudes
- Humanizes care by involving patients
- Encourages the use of understandable and non-judgmental language
- Active learning process
- Patients feel a part in the learning process
- Improves patient's understanding of their disease

The opportunities for directly demonstrating procedures, directly observing learner skills, and giving immediate feedback to learners are unmatched in other clinical teaching formats. By following the above steps novice clinical teachers will improve their coaching skills and facilitate both competence and the effective use of reflective learning by their students.

Done properly bedside teaching is an efficient, productive and highly satisfying experience.

RECOMMENDED READING

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- <http://bmj.bmjournals.com/cgi/content/full/326/7389/591>

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