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Shri B. M. Patil Medical College Hospital
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Medical Education Unit

'Being a Competent Medical Teacher'

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13 BED SIDE TEACHING

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Bedside teaching has long been considered the most effective method to teach and assess clinical skills and communication skills in learners. The credit of initiating the concept of Bedside Teaching goes to Sir William Osler. He introduced clinical clerkship for first time in history of medicine. He wrote "In what may be called the natural method of teaching, the student begins with the patient, continues with the patient, and ends his studies with the patient, using books and lectures as tools, as means to an end"[1].

A medical teacher starts teaching in medical college immediately after clearing master degree without any formal training in teaching. Apart from being clinician, he has responsibility to impart knowledge of clinical skills to learners and assess the learning process in terms of correct techniques and process being followed. The learner too has expectation from clinical teacher. In this context Irby DM [2] has suggested certain skills in a teacher to be excellent in bed side teaching.

They are

1. Share a passion for teaching
2. Are clear, organized, accessible, supportive and compassionate.
3. Demonstrate clinical competence
4. Utilize planning and orienting strategies.
5. Posses a broad repertoire of teaching methods and scripts.
6. Engage in self evaluation and reflection.
7. Are able to establish rapport; provide direction and feedback; exhibit integrity and respect for others.

8. Draw upon multiple forms of knowledge; they target their teaching to the learners level of knowledge.

Goals of Clinical Teaching[3]

1. Accumulate and recall information about patients
2. Perform complete and orderly physical examination
3. Perform skill procedure
4. Interpret data
5. Solve scientific and professional problems
6. Communicate information reliably
7. Develop familiarity with health care services and facilities
8. Develop appropriate attitudes to patients and allied health care workers
9. Accumulate factual healthcare knowledge
10. Acquire positive attitude to independent learning.

Why bed side teaching?

Off late many clinicians are of view that when accurate and rapid diagnostic methods are available for making a diagnosis in a given case, why spend time in history and physical examination?

This notion is not healthy for our profession and should be curtailed. Bed side teaching is of paramount importance since medicine is taught.

I refer to two "T"s to my students. One T stands for Talk to patient and another T is for Touch the patient. Both of the T will serve purpose of History taking and Physical Examination. Also use of special senses like Hearing, Smelling, Feeling and Seeing are of paramount importance in clinical practice and should be used in co ordination, so that more precise and accurate diagnosis is reached.

Now the scenario in clinical setting is changed. A person when is sick seeks home remedies initially, then gets drugs from medical shop, then from a quack , then from non allopathic doctors and then consults a physician. During this time the classical signs and symptoms of a given disease are masked or altered, which in turn leads to dilemma in diagnosis. In such situation a elaborate history and thorough clinical examination helps a clinician to reach a diagnosis.

Secondly, diseases like Epilepsy, Angina pectoris etc are more of a clinical diagnosis and only history taking will help reach diagnosis. Bed side teaching has been a boon for clinician and also benefits the patient.

Thirdly, claims are made that diagnosis is arrived only after relevant investigations are done, but the point lies in which investigation to order. This decision again requires a detailed history taking and physical examination.

Although advanced technologies are replacing bedside teaching, numerous studies have demonstrated that technology has not necessarily improved the quality of patient care, both in diagnosis and management. A study by Combes A et al [4] showed diagnostic error of 32% of patients despite extensive investigations. This study was done in 167 patients admitted in ICU and on autopsy the diagnostic errors were uncovered.

Another study by Kirch W [5], demonstrated that history-taking and physical examination are the most important factors in arriving at a correct diagnosis, where as lab tests and imaging studies play only minor roles.

Hence history taking and physical diagnosis which is learnt at bedside teaching serve as the foundation for all clinical decision making and their significance should not be discouraged or forgotten.

I quote Allen RB [6] "while in many cases laboratory findings are invaluable for reaching correct conclusion, the student should never be allowed to forget that it takes a man, not a machine, to understand a man.

There are four models currently used world wide for bedside teaching. All the four models are discussed here.

1. **MiPLAN**
2. **A Structure for Bedside Teaching**
3. **OMP Model**
4. **Best Bedside Teaching Practices**

MiPLAN [7]

It is a three part model for bedside teaching.

It is designed to enable clinical teachers to simultaneously provide care to patients while assessing learners, determining high yield teaching topics, and providing feed back to learners.

It was first described by Chad Stickrath in 2011[7].

MiPLAN is acronym for

M – Meeting
It refers to preparatory meeting between teachers and learners before engaging in patient care or educational activities.

I refers to five behaviors for the teacher to adopt during learners bed side presentations. They are introduction, in the moment, inspection, interruptions, andindependent thought.

PLAN

It is a algorithm to establish priorities for teaching subsequent to a learners presentation

Patient care, Learners question, Attending agenda and Next steps.

This model helps to increase faculty confidence in conducting bedside rounds and combines a number of patient care and teaching techniques.

2.A structure for Bedside Teaching [8]

First described by Cox in 1993

This model divides teaching activities in to three categories

1. Before the bedside
2. At the bedside
3. After the bedsideDeborah Gill [9] has added "Before the session" to ensure teacher and patient are fully prepared.

Before the session

Brief the patient:

Check what they are happy to discuss/expose. Are they happy with the number of students who will be involved in the session?.

Explain that these are learners and may suggest unlikely diagnosis etc.

Brief yourself:

Check the clinical findings; check that the students have not been taught on this patient already. Check that experience with this patient is appropriate for their needs.

Before the bedside

- Establish the students' knowledge base
- Brief the students –Ground rules of what to discuss and not, in front of patient
- What are they expected to be learning
- May even discuss that this patient has the following features to look out for.

At the bedside

Role model good doctor – patient relationship

Try to involve all the students all the time

Focus on clinical experience and less on pathology

After the bedside

Give constructive feed back to the students

Explain findings –what did the findings mean?

Which findings help discriminate between differential diagnosis

How do findings fit with diagnosis

Debrief the students-what did the students find

Did every one detect the key features? Any students uncertain?

Working knowledge –what should students do differently next time.

Thank the patient for being part of the learning.

3.OMP Model [10]

The One Minute Preceptor model

It is widely used method for improving clinical teaching

It was first introduced by Neher et al in year 1992.

It is used to impart clinical skills for both undergraduate and Postgraduate students

The main feature of this model is, the teacher first focuses on diagnosis of patient, then on diagnosing the learning needs of the students and finally provides targeted instruction in the context of this diagnosis.

This model has five components called microskills
It helps the mentor guide the teaching interaction. The five micro skills are

1. Get a commitment –ie ask the learner to articulate his/her own diagnosis or plan.
2. Probe for underlying reasoning- evaluate the learners knowledge or reasoning.
3. Teach general rules –teach the learner common take home points that can be used in future cases aimed preferably at an area of weakness for the learner.
4. Reinforce what was right – Provide positive feed back
5. Correct mistakes-provide constructive feedback with recommendations for improvement.

The first two micro skills assess learners' knowledge and reasoning and remaining three skills offer tailored instructions.

Advantages [11]
1. It is brief, easy to learn, improve key teaching behaviors
2. It overcomes lack of feed back
3. It enhances the clinical reasoning process of a learner

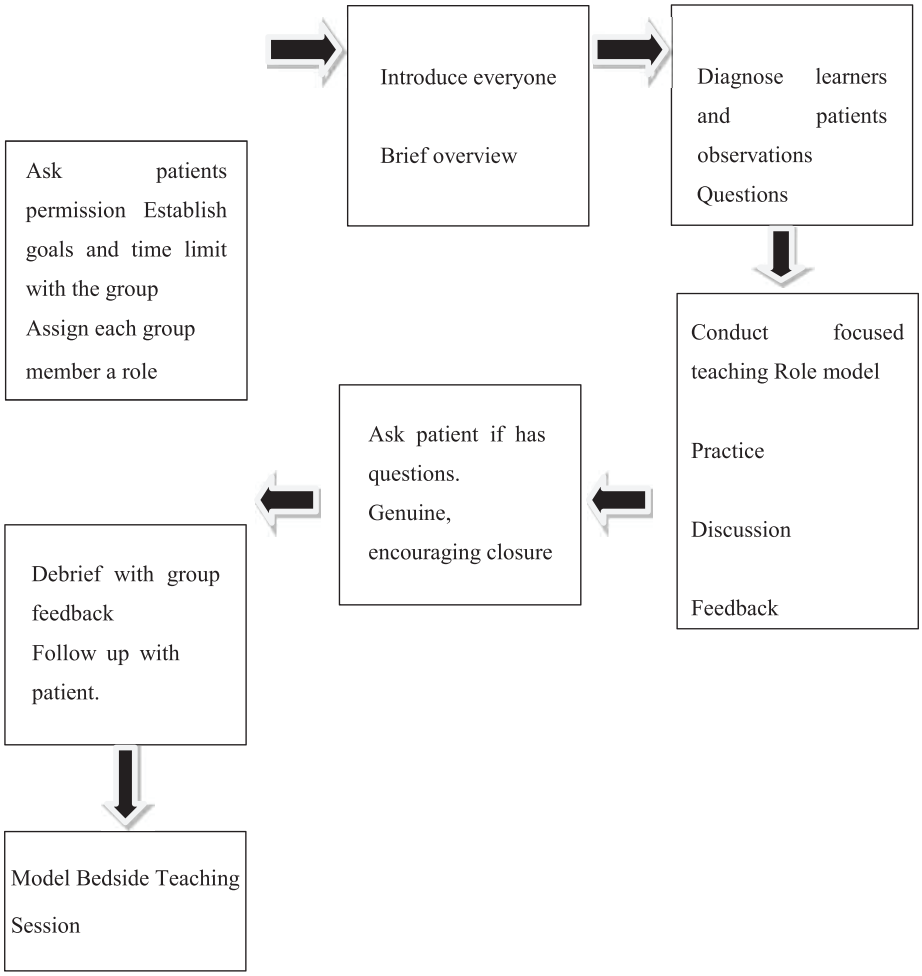
Disadvantages
1. Mainly used for final year undergraduates and postgraduates.
2. Not for teaching the skills
3. Preferred for outpatient setting.

4.Best Bedside Teaching Practices [12]
This model is developed by Janicik RW and Fletcher KE in year 2003. It has three domains and each domain has specific goals and skills.

1. Attending to patient comfort
2. Focused teaching
3. Group dynamics.

Goals of each domain

1- To remain patient centered and respectful, which will maximize outcomes for both learner and patient.
2- To conduct an effective teaching session in a focused manner that is relevant to an individual patients and learners need.
3- To keep entire group active during the session.



Attributes of an effective Clinical Teacher [9]

- Encourages active participation rather then passive observation
- Emphasis on teaching of applied problem solving
- Integrates clinical medicine with basic science
- Close observation of students during examination
- Provides adequate opportunity for students to practice skills
- Provides good role model for inter personal relationships with patients
- Teaching is patient oriented rather than disease oriented
- Demonstrates positive attitude towards teaching

Benefits of Bedside teaching

For students

1. Teaching rounds are memorable and motivating
2. Integration of theoretical knowledge with practical skills
3. Helps students see disease as an illness happening to a human being
4. By example they learn to become good doctor
5. Learn proper behavior

For Patient

1. It helps them promote communication
2. They feel their fears are addressed and anxieties soothed.
3. They appreciate that teaching is important function of hospital
4. Feel they are source of interest and concern too.

For teacher

1. It helps teacher to learn
2. It helps train future doctors.

Advantages of Bedside Teaching

1. It helps learn clinical skills
2. It also helps to directly observe skills in student and there by correcting faulty examination techniques.
3. It is an active learning process in which adults learns best.
4. It helps to gather more information from patient
5. It instills confidence in patient too.

Barriers that prevent teachers from venturing to teach at bed side.

There are many reasons why teachers are reluctant to teach bed side. Some of barriers are mentioned here by Janicik RW [12].

1. Fear of patient discomfort.
2. Lack of Privacy, Confidentiality.
3. Work demands and time constraints.
4. Patient related challenges- short hospital stay, patient too sick,or unwilling to participate in teaching encounter.

Bedside Teaching

Do's	**Don't's**
Teacher should arrive in time	Teach while there is meals, Cleaners or visitors are expected in wards.
Case for discussion should be informed to students in advance	Give derogatory remarks
Introduce yourself	Scold students in front of patients
Privacy of patient to be maintained while teaching examination skills	
Teachers should share their experience	Discuss theory
Teach	Expect answers from students which they don't know
Make sure all participants can see and hear you	
Involve all participants	Distractors – Mobile phone.
Listen	Interrupt the learner repeatedly
Problem oriented questions	
Give Feedback	
At end thank patient	

Conclusion

If a clinician ignores the very basic bedside teaching learning process, he is like to accept the illogical laboratory finding with question.

Bedside teaching can be made more interactive and fruitful if the session is learner centered and not using the session to demonstrate teaching eloquence on medicine.

"To study the phenomenon of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all "[13].

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