The Semi-Structured Conversation by Lynne H. Neitzschman, Ph.D. & Harold R. Neitzschman, M.D.

### Purpose of the presentation

Share

 Interviewing as a part of medical school admissions and residency selection has long been employed as part of the overall process. Why are we interested in this process as part of our overall selection methods:

**A. Experience** This raised important issues regarding

subjectivity

- reliability and validity
  - type of interview format used
    - predictability of selected applicants' performance

### Another reason why.....

Minimum competency standards adopted by the ACGME and the American Board of Radiology.

### The mandate

#### To implement the ACGME Outcome Project

# **ACGME General Competencies**

- Patient care
- Medical knowledge
- Practice-based learning & improvement
- Interpersonal & communication skills
- Systems-based practice
- Professionalism

# These competencies

- Represent a new definition for what it means to be a physician (radiologist) in the 21<sup>st</sup> century.
- Articulate new and clearer benchmarks against which all residents will be measured.

### Premise:

If you are planning to measure a resident according to certain criteria at the end of the residency program, there is a way to measure a predicted outcome based on these same criteria.

# To measure the general competencies, we

- Developed an assessment tool to measure the residents' competencies on a monthly basis;
- Developed this assessment tool to evaluate prospective radiology residents, which we will describe to you this morning.

### Review of the Literature

 Admission interviewing is widely used in the process of selecting medical students (Gabard et al., 1997) An interview may be the best way to select the best applicants from a large group who all fulfill the minimum academic criteria (Youdas, et al. 1996).

### Need another way to discriminate

The interview must be able to provide useful information about the candidates which is not available from other sources (Powis, 1998 and Abbasi 1998). The use of interviewing in the selection process will continue to increase "as a result of recognition that non-cognitive skills of applicants needs to be considered" (Vargo et al. 1996.)

#### Non-cognitive skills are considered better predictors of "good" clinicians (Powis, 1998)

#### **These non-cognitive skills include**

- Verbal communication skills
- Time management and flexibility
- Knowledge of the profession
- Problem solving and Decision making skills
- Values and Integrity
- Attitudes
- Physical appearance including health, speech and poise
- Perseverance
- Self confidence without arrogance

(Powis et al. 1992; Glick, 1994; Youdas et al., 1996)

### Review...

- If you are going to compare applicants, you need to have comparable information for all.
- For interview results to be reliable, you need to be consistent in the types of questions asked to each person.
  - Asking structured questions also protects the interviewer from bias. (Thayer, P. 2000)

### The Issues

• **Subjectivity**: interviewer bias

Reliability: consistency of interview

• Validity: extent to which interview measures what it claims to measure.

# Subjectivity

#### Interviewer bias arises from

- differences in how applicants are rated as well as stereotyping;
  - gender and racial bias
    - over weighting of negative traits.

# Subjectivity can be reduced by

- the use of a standardized semi-structured interview format which includes a range of scores
- independent interviewer scoring and
- an agreed upon weighting of characteristics being assessed
- training the interviewers

# Reliability and validity

continue to be controversial because of

differences among the interviewers

 as well as
 changes within an interviewer over time.

# Most reliable and valid when

- factors for assessment are identified
- questions designed are relevant and unbiased
- four or five point scale used to rate responses
- interviewers are trained

# **Types of Interviews**

Informal: no structure; no control

- <u>Unstructured</u>: some structure, but the basic goal is to put the interviewees at ease and allow them to express themselves.
- Semi-structured: retains the open quality of the unstructured, but is controlled by a list of questions and topics to be covered.
- Structured: includes the list of questions, by answers are to be chosen from a list.

# The semi-structured interview

is best defined as a

- method of data collection which
- involves an interaction between an

interviewer and the interviewee for which

- the purpose is to obtain valid and reliableInformation.
- It is a conversation with a purpose (Kahn & Cannell, 1957).

# To be able to compare results

1. It is important to have comparable questions, so all interviewers should share a menu of questions based on agreed upon topics. The questions should be similar in nature and designed to elicit similar data from each candidate.

### To be able to compare results

Maintain consistency with regard to the types of questions and style of interviewing throughout the process.

# In order to compare results

Avoid interrupting, leading, or showing approval or disapproval. Keep the selection part of the interview separate from information seeking on the part of the interviewee.

# To be able to compare results

4. Listen carefully. The applicant should be doing at least 80% of the talking.

5. Make it clear from the beginning that you are following a guide and will be taking some notes.

# ACGME Criteria as modified:

### 1. **MEDICAL KNOWLEDGE:**

this person has the cognitive ability to succeed as a radiologist. This interview supports the medical record of performance, USMLE score, the dean's letter and letters of recommendation .

#### 2. PRACTICE-BASED LEARNING AND IMPROVEMENT:

This person demonstrates an interest in using a variety of resources to investigate and evaluate patient care practices. This person also shows a curiosity for exploring projects and research, using appropriate resources to obtain information.

### 3. INTERPERSONAL AND COMMUNICATION SKILLS:

This person is genuine, and engaged in conversation with me using good eye contact and appropriate listening and response skills. This is someone who would be enjoyable to work with in training.

#### 4. **PROFESSIONALISM**:

Systems Based Practice and Patient Care. This person demonstrates ethical behavior and a commitment to carrying out professional responsibilities as a member of the health care team. This is a person who would be a credit to the department, institution, and the profession.

# Prospective Radiology House Officer Evaluation Form

Tulane University Health Sciences Center

> developed by Harold R. Neitzschman, M.D. Lynne H. Neitzschman, Ph.D.

# The Sample Questions

- Part of what will be a bank of questions from which interviewers can select;
  - Designed to elicit answers which address at least one of the competencies;
- Answer may provide insight about the candidate on another competency.

# 1. Medical Knowledge

- This person has the cognitive ability to succeed as a radiologist. This interview supports the medical school record of performance, USMLE score, the dean's letter and letters of recommendation .
- Describe one of your most challenging cases during your clinical rotation in medical school.
- Tell me about an experience in medical school where you felt particularly competent.
- What particular skills to you feel you possess that make you feel Radiology is the best specialty for you?
- You have probably interviewed as several places and know that programs can be very different. If you could design a residency program that could best suit your professional needs what would it look like?

#### 2. Practice-Based Learning & Improvement

This person demonstrates an interest in using a variety of resources to investigate and evaluate patient care practices. This person also shows a curiosity for exploring projects and research, using appropriate resources to obtain information.

- Give me an example of how you have used technological resources for gathering information.
- What applications do computer assisted learning and the internet have in your learning process particularly in the field of radiology?
- Tell me about particular issues or topics, diseases or modalities you had the opportunity to explore or wished you could have explored in medical school.
- **Tell me about any particular interests you want to investigate in the future.**
- Tell me about an experience when you took a risk that ended up being successful. What did you do and what was the outcome?
- Tell me about an experience in which you believe you achieved a high degree of success when working on a project or task.

#### 3. Interpersonal & Communication Skills

This person is genuine, and engaged in conversation with me using good eye contact and appropriate listening and response skills. This is someone who would be enjoyable to work with in training.

- Can you recall a time in medical school when you had some doubt about the professional path you had chosen?
- Tell me about an experience in which you helped a colleague by providing your help and advice, even when there was no apparent gain for yourself.
- Can you tell me about a time when you disagreed with someone, but your careful and active listening resulted in a positive resolution to the discussion.
- How would you rate yourself in terms of your ability to establish rapport and maintain healthy relationships with others.

#### 4. Professionalism, which also includes Systems based Practice & Patient Care

This person demonstrates ethical behavior and a commitment to carrying out professional responsibilities as a member of the health care team. This is a person who would be a credit to the department, institution, and the profession.

- Can you recall an incident during medical school where an ethical conflict developed. What happened and what did you do?
- If you encountered an ethical conflict with an upper level resident as a first year resident, how would you handle it?
- *Tell me about a case in which you felt that you impacted the patient or the patient's care.* 
  - Can you tell me about a patient who had an impact on you?
- Tell me about how you see yourself as a member of a health care team particularly how a radiologist impacts the overall health care team.
  - What do you think you give up in terms of direct patient contact as a radiologist?

#### The scale

- 1 Unsatisfactory. Falls below expected abilities
- 2 Average. Meets reasonable expectations of abilities
- 3 Above average. Exceeds expected abilities.
- 4 **Superior**. Outstanding evidence of performance.

# Scoring

Criteria:

	Medical Knowledge	1	2	3	4
	Practice Based Learning	1	2	3	4
	Communication Skills	1	2	3	4
•	Professionalism	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>

Total points: \_\_\_\_\_(add the number of points for each of the four categories).

# Summary of points

- 14-16 points: This person would make an outstanding resident.
- 12-13 points: This is a good candidate to consider.
- 8-11 points: This is a average candidate.
- 4- 7 points: This candidate should not be considered for a residency.

# Methodology

Interviewer training included discussions around

- the rationale for the semi-structured conversation
- sample questions
- scoring range

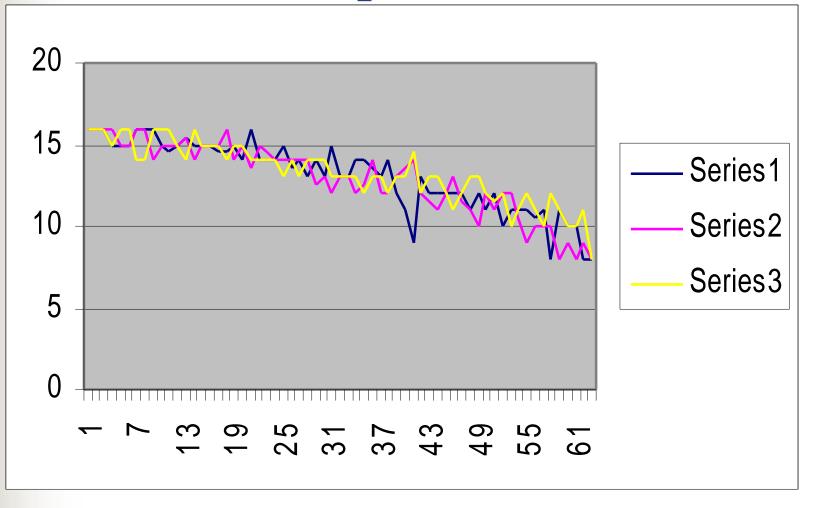
Three person panel instead of single interviewer

Five minute discussion after each interview with independent scoring.

#### **Result:**

Even with independent scoring, range of scores for each interviewee was closer in range than in previous years.

#### Inter-rater response chart



### Pearson product moment correlation coefficient

# Among all ratings for all raters for all candidates interviewed = .776

### Informal evaluation

An informal evaluation of the process by interviewees and chief residents was very positive:

- Process was more consistent and more fair.
- Interviewees did not have to repeat themselves.

#### Questioning is an art

A question not asked is a door not opened.

You can't get good answers without the good questions.

Effective questions get high quality information while maintaining rapport.

(Adams, 1999)

## Questions

• How we question is important.

Good questions help us to listen to what is valuable.

There is always a new question or a different way to ask the same question.

# Group Task

- At your table, review the Criteria for which your table will
- Select a reporter
- Formulate two to three questions
- Write the criteria and one question per card.
- At the end of 15 minutes, reporter to come up to the mike to share.

#### **Open-Ended Question Stems**

- Tell me about... or Describe a (time, event, person)
- Can you share a time or experience when...
- Can you recall... or When was a time that
- Give me an example of... name a time that
- How would you...
- If you could... or What if...
- I'm curious about... or I'm wondering
- Can you explain to me...
- Can you elaborate on... Tell me more about
- Help me to understand... Can you shed some light on...
- What was the reasoning behind... What led up to...

Questions proposed at the 2002 AUR meeting are presented on the following slides:

- Tell me about a patient care situation in which radiology altered the management of the patient.
- Describe a critical clinical situation and how you communicated with the family.
- Tell me about something you learned in the radiology clerkship.
- Tell me about the most stressful time or situation in medical school and how you coped with it.

- How would you respond to a patient who asks "Am I going to die?"
- Can you recall any tie when you disagreed with a patient's diagnosis or treatment?
- Tell us about the biggest argument/controversy you were involved with in high school.
- 4. Give us an example of a situation where you were pivotal in the resolution of a conflict between two other people?

- Have you been on call and had a patient that necessitated a literature search?
- Has the internet ever been a useful resource in your practice?
- Suppose you're in charge of the call schedule. You need to fill a slot with one of two people, one of whom has told you has to be out of town as best man in a wedding and the other of whom has to present a paper at a meeting. How do you resolve the conflict?

- Describe a time where you were in a position to give someone a bad evaluation, how would you handle it?
- What features would you add to a medical school
  curriculum that you think might better propagate you
  for a radiology residency career?
  - Can you recall a time when you received an
    evaluation (good or bad) with which you disagreed?
    Can you elaborate on some of the possible reasons
    for the results of these evaluations?

- If a referring physician insists that you perform a study on a patient and you believe that study could be harmful to the patient, how would you handle the situation?
- Describe a patient for which you felt very little empathy but you know you should. How would you handle this?
- What would you do if you saw a senior resident make a mistake that might harm a patient if not corrected promptly?

- As an interventionalist, you have a doctor-patient relationship with a patient with many medical and social needs/concerns. This patient acquires your pager # and home phone # and calls several times per day. How do you handle this patient's needs?
- We are considering providing each resident with a Palm Pilot. How might that be an advantage for you as a resident?
- A consulting physician asks you a question and you are not sure of the answer? How do you handle it?

- Tell me about a negative interaction you had during medical school with anyone from a transporter to an attending and how the two of you dealt with it at the moment and afterwards?
- What do you see as the most challenging aspects of a Radiology residency?
- How would you handle a situation when you know one of your fellow residents had a problem with drugs or alcohol?

- Tell me about yourself: For what reasons do you want to come to this area?
- I note that you were involved in research in medical school. Can you explain to me what you added to the project and what was the most significant thing that you learned.
  - You are on call and someone else asks you a question on a subject you know nothing about. How do you gather info about the topic expeditiously?
- What resources did you use for researching practical residency programs?

- Outside of the structural lecture, what other formats did you find most helpful as learning tool?
- Describe for me how you deal with a colleague who is exhibiting evidence of substance abuse.
- Describe your response to an episode of cheating on the Gross Anatomy final exam (your own cheating or that of another student)
- How would you decide (and what factors would you consider), as an HMO executive, whether to immunize 2500 children at \$100 each or provide one liver transplant at \$250,000 each?

- In what ways do you maximize your own health and well-being?
- Of all the things you have accomplished in your life, both professionally and personally, what are you most proud of?
- A consulting physician asks you a question and you are not sure of the answer? How do you handle it?
- How would you deal with a fellow resident who is not "pulling their weight" in the work

- What personal qualities most help you during medical school?
- When you become a radiologist, how would you approach a clinician who you believe has not ordered the optimal test?
- Tell me about a patient from whom you learned something?How has your medical school training prepared your for your radiology residency? What might you have done differently?
  - How would you like to see radiology develop over the next five years?

- How do you see yourself changing between now and the end of residency?
- What is the most curious quality of an acorn?
- How would you deal with the following? You are on call two years from now. It is your first night on call as a radiology resident. You encounter a finding on a chest x-ray that you might have not seen before. What options might you have to help you make the appropriate diagnosis?
- Tell me about your experience in using on-line resources, library resources, and Internet resources

- On your rotation as a medical student while shadowing a superior did you witness any unprofessional behavior and if so how did you handle it?
- Did you ever feel as a medical student that you were not part of the clinical team. How did you address the situation in order to optimize your learning experience?
- Can you recall the experience that made you decide to choose Radiology as a profession?

- How would you react if an attending asked you to do a literature review on an interesting case that you were involved with?
- What was your contribution to the research projection / paper / presentation you listed on your CV?
- Can you tell me about an interesting patient, his presentation, his work-up and his eventual treatment?

- Give me an example of research activities that you have been involved in or have an interest in pursuing.
- Can you recall a time when you were on call and encountered a patient whose history necessitated an on the spot literature search?
- I'm wondering about the sites on the Internet that you have recently visited related to medical school research projects.

Thank you all for your contributions. Since many of the questions addressed more than one competency, we did not organize them into the four categories. You can decide. Harold and Lynne 4/20/02