USE OF SYSTEMATIC FEEDBACK AND THE PARALLEL PROCESS MODEL TO ENHANCE FACULTY TEACHING SKILLS

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INTRODUCTION

The following is a proposal for a collaborative research project under the direction of Kim Marvel, Ph.D., with the Wausau Family Practice Center, Department of Family Medicine, University of Wisconsin Medical School. Dr. Marvel and the physician faculty of the Wausau Family Practice Center have embarked on a study of videotape feedback and the use of the parallel process model to enhance faculty clinical teaching skills. It has frequently been observed that "the precepting of residents is often unplanned and undirected...Preceptors are often unaware of their teaching objectives or their teaching style" (Esposito, Schorow, & Siegel; 1983). Since the parallel process model has been described extensively by a faculty member in this department (Shapiro & Talbot, 1988), we were invited to participate in a replication study. As pointed out by Marvel, the study has the potential to contribute both to faculty development in the departments involved, and to the family medicine research literature on faculty development (Marvel, 1989).

PROJECT GOALS AND OBJECTIVES

The goals and objectives of this study are as follows:

1) GOAL: Enhancement of faculty clinical teaching skills
   OBJECTIVES: Faculty members will learn to develop increased skills in:
   a) giving full attention to the resident
   b) using open-ended questions
   c) encourage resident problem-solving
   d) providing explanations for own suggestions
   e) obtaining feedback from resident
   f) using active listening skills
   g) exploring psychosocial material
   h) developing family-oriented approaches

2) GOAL: Enhancement of resident skills in interviewing patients
   OBJECTIVES: Residents will learn to develop increased skills in:

   a) giving full attention to the patient
   b) using open-ended questions
   c) encouraging patient problem-solving
   d) providing explanations for own suggestions
   e) obtaining feedback from patient
   f) using active listening skills
   g) exploring psychosocial material
   h) developing family-oriented approaches

3) GOAL: Documentation of existence of "parallel process" in resident/patient and faculty/resident encounters.
   OBJECTIVES: Similar patterns of usage of the categories specified below for both faculty and residents will be demonstrated.

4) GOAL: Assessment of usefulness of parallel process approach in teaching clinical precepting skills.
OBJECTIVES: Improvement of clinical teaching will occur after the faculty member participates in an individualized meeting during which feedback is presented in the parallel model.

PROJECT DESIGN

PARTICIPANTS

Six full-time faculty and 4 clinical M.D. faculty ? in the 29A clinic will participate in the study. In addition, the study will include those residents who are precepted by these faculty, as well as a subset of patients seen by the participant-residents.

SETTING

Data collection and feedback sessions will be conducted at the 29A clinic. Observation of residents and patients will occur in treatment rooms; observations of faculty and residents will occur in the staffing room. Feedback sessions will be conducted in a private room available to the department.

METHOD

Data Collection. Two forms of data collection will occur; a) direct observation and b) rating evaluation.

Direct Observation. Each participating resident and faculty member will be observed on 5 different occasions during clinical teaching hours. Although residents and faculty will be provided with detailed information about the project, observations to be used in the study will be selected on a random basis from a larger universe of observations made. Observation will begin approximately one-half hour after the beginning of the clinic, and will run for approximately 3 hours, including all patient and precepting encounters during that time.

Two observation periods will be obtained during the two weeks prior to the feedback session with the faculty member. These preliminary observations will yield the baseline data. Following the feedback session, two additional observation periods will be conducted during the subsequent two weeks to detect any changes in precepting behavior. Finally, one observation period will occur three months after the feedback session to assess the long-term effect of the intervention.

In order to detect changes in clinical teaching skills (faculty) and in patient interviews (residents), each encounter will be systematically coded during the observation period. Specific behaviors to be coded are listed on the Faculty Precepting Coding

Form (Appendix A) and the Resident Encounter Coding Form (Appendix B). Relevant resident and faculty statements will be coded as they occur in the natural environment. Examples of each coding category will be included on the Coding Forms to assist in the training of the observers and for use during the observation procedure. Inasmuch as possible, each of the two pre-post observation periods will be observed by a different behavioral science observer. An inter-rater reliability index of 80% will be achieved using a sample videotape from Dr. Marvel's study.

Resident and Patient Ratings. A second form of data collection will be feedback to faculty from residents; and feedback to residents from patients. A brief questionnaire (Appendices C & D), one for each of the ten faculty, will be completed by residents at 3 time periods: 1) at the beginning of the study (to provide baseline data) 2) after each faculty member has participated in the feedback session 3) 3 months later (to assess maintenance of any changes). Similarly, patients will complete a related questionnaire for their physician-residents during the same time periods. The items on the resident questionnaire are very similar to the behaviors listed on the Faculty Precepting Feedback Form, so that resident feedback will correspond to the content of feedback from the structured observations. In parallel fashion, the items on the patient questionnaire resemble the behaviors listed on the Resident-Patient Encounter Form.

Feedback Meeting. Each faculty member will participate in one 2-hour individual feedback session with the clinical psychologist. These meetings will occur immediately after the second observation period. During the introductory stage of this meeting, the observed precepting encounters will be discussed, along with resident feedback relevant to those encounters. Then, the parallel process model will be described. Resident performance and patient feedback will be examined from this perspective. By this method, precepting strengths and weaknesses will be identified, and related to resident performance and patient satisfaction.

EXPERIMENTAL DESIGN

A single-subject design (multiple-baseline across subjects) will be used in this study. Single-subject designs have been recommended for applications in which the intervention focuses on individual subjects (Kazdin, 1982). Such designs circumvent the problems due to the unavailability of a large population of faculty preceptors and provide a greater degree of experimental control than the traditional case study method. Additionally, single-subject designs are appropriate for a new procedure which may require refinement before a large control-group study is warranted. Data will be presented in graph form and analyzed by visual inspection using the criteria provided by Parsonson and Baer (1978).

PROPOSED TIME FRAME

The study will require approximately six months to complete. Data will be collected and the ten individual faculty feedback sessions will be held over a twelve week period. The follow-up data collection will occur three months later. Start-up date for the project is proposed for July 15, 1989.

APPENDIX A

FACULTY PRECEPTING CODING SHEET

FACULTY_____ DATE OF TAPE_____ STAFFING ENCOUNTER #___

CODER_____ DATE OF CODING_____ LENGTH OF PRECEPTING ENCOUNTER (in min.):_____

Attends to Resident: (check every 30")
Looks at resident and body is oriented within 45o of resident

Open-ended questions/statements:
(non-directive questions that elicit general info or resident's agenda)
"What can I do for you?"
"What questions do you have?"
"Tell me more about it"

Closed-ended questions:
(directive questions to gain more info, or to get resident to consider a certain topic/area)
"What did the X-ray show?"
"How old is he?"
"What's the pt's family history?"
"Have you thought about depression?"

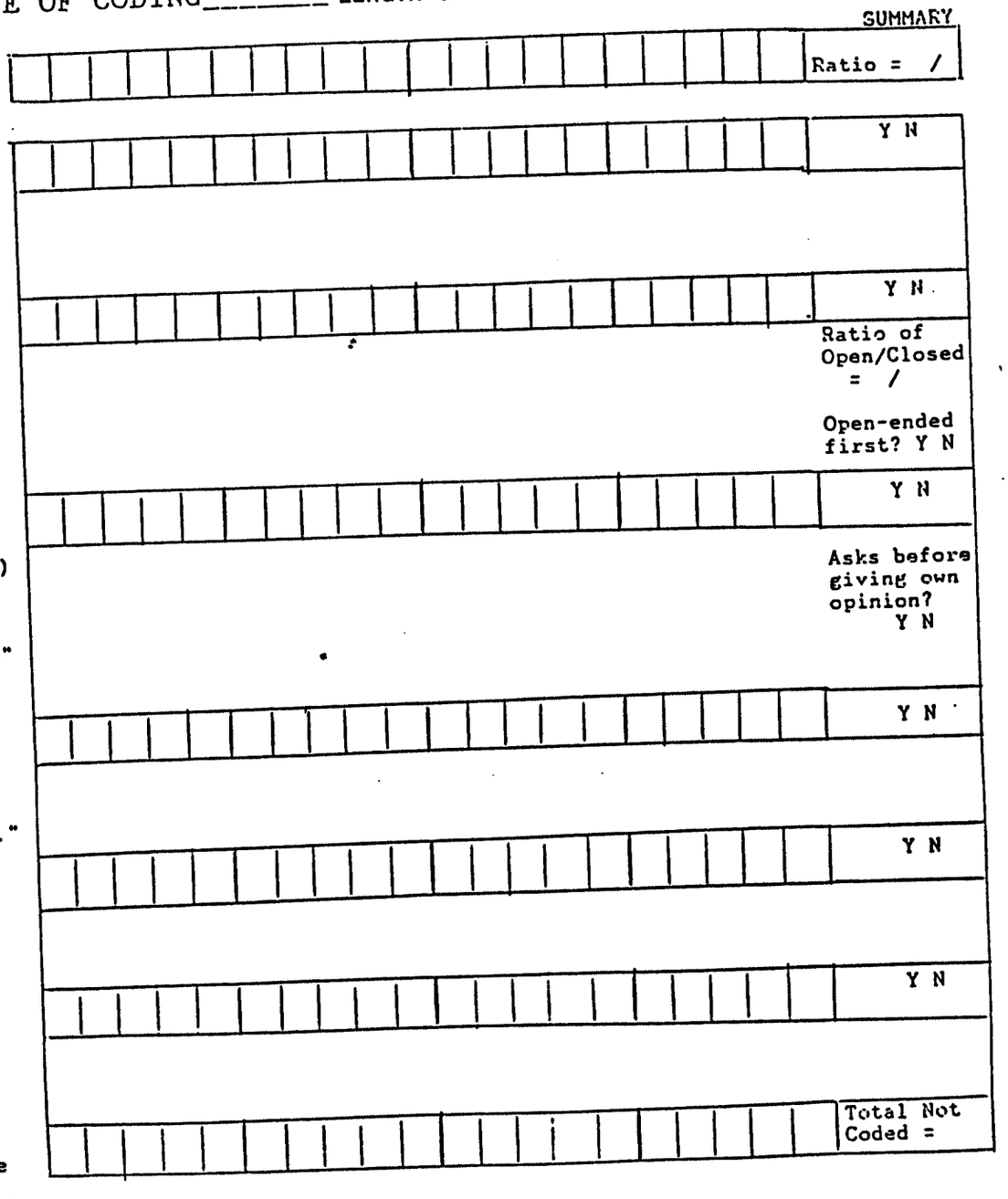
Elicits/asks specifically for resident's opinion:
(encourages problem-solving/reasoning)
"What do you think?"
"What would you give for that?"
"Why do you think its bronchitis?"
"Describe how you would approach this"
"Why would you do that?"
"What else could it be?"

Gives own opinion/suggestions:
"I usually prescribe _____"
"I'd get another lab test"
"It also could be just a sprain"
"In this case, I think its best to..."

Provides rationale for own opinion:
"The reason I do that is..."
"Its better to do this because..."
"I use it because..."
"I avoid that procedure because..."

Obtains feedback from resident regarding his/her agreement/understanding:
"Does that make sense?"
"Okay?"
"Do you agree with that?"

Other statements not coded above:
(any statement that does not fit the other categories, e.g., informal



FACULTY PRECEPTING CODING SHEET

FACULTY_____ DATE OF TAPE_____ STAFFING ENCOUNTER #___

CODER_____ DATE OF CODING_____

Uses active listening skills:
(Comments which encourage residents narrative: clarifying remarks; empathic remarks; paraphrasing)
"Mmmm." "Uh-huh."
"So it's a sharp kind of pain."
"That must have been frightening."
"I'm not quite sure what you mean."
"Tell me more about it."

Exploring psychosocial/emotional material:
(open-ended questions and active listening skills particularly directed at psychosocial issues)
"How do you feel about this patient?"
"You seem pretty depressed today."
"How is the patient feeling about all this?"

Makes self-disclosing statements:
(statements reflecting personal reactions and experiences)
"I would have felt pretty helpless too."
"I remember my internal medicine rotation as a very hard time."

Encourages family orientation:
(Statements and questions which encourage resident to think about patient from a family perspective)
"How might this situation affect the marriage?"
"What other family members are living at home?"
"We'd better think how the family is going to respond to this suggestion."
"What else is going on at home?"

SUMMARY

Ratio = /

Y N

Ratio of Open/Closed = /

Open-ended first? Y N

Asks before giving own opinion? Y N

Y N

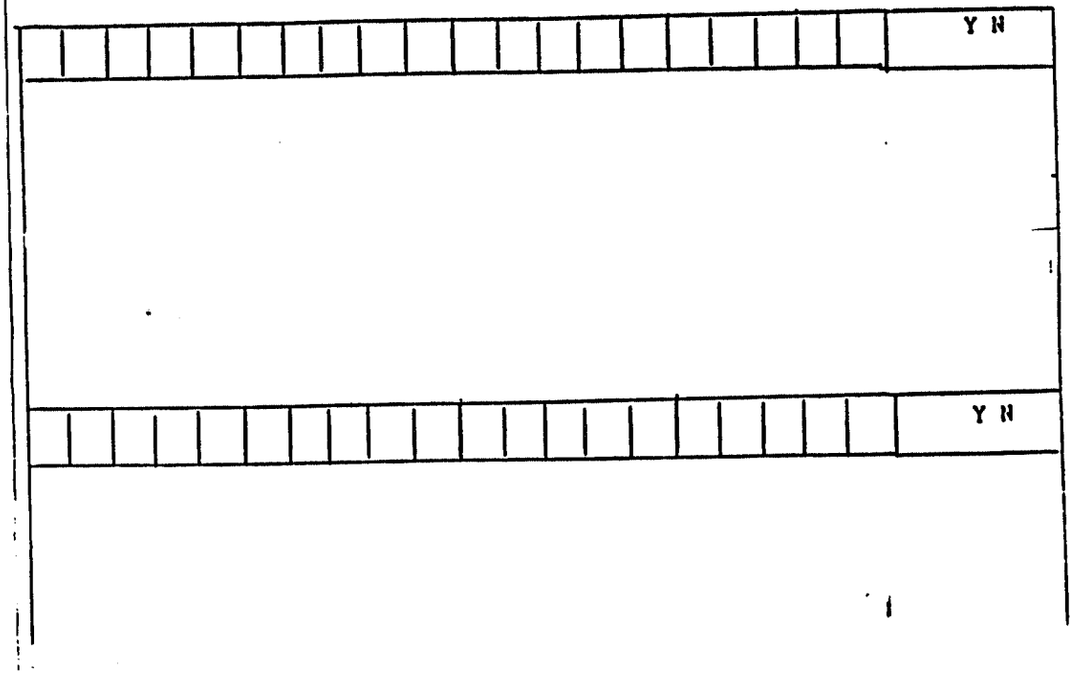
Y N

FACULTY PRECEPTING CODING SHEET

FACULTY_____ DATE OF TAPE_____ STAFFING ENCOUNTER #___

CODER_____ DATE OF CODING_____

Reinforces resident efforts:
"statements which encourage and support resident problem-solving)
"That's a good point."
"Interesting idea."
"That hadn't occurred to me."
"Keep up the good work."
"You're doing a good job."



Suggests psychosocial intervention:
(statements directed toward dealing with identified psychosocial and emotional problems of patient)
"Perhaps the patient is in need of counseling."
"Let's suggest these stress management techniques."
"How about a home visit?"
"It might be useful to talk to both husband and wife."

APPENDIX C

RESIDENT-to-FACULTY FEEDBACK

Name of Faculty: _____

During precepting situations, the faculty member:

	Strongly Disagree	Neutral	Strongly Agree
1. Was available.			
2. Gave full attention to me.			
3. Used open-ended questions in teaching			
4. Used active listening skills in teaching			
5. Encouraged me to problem-solve (vs. provided all the answers)			
6. Reinforced my efforts to devise an appropriate treatment			
7. Provided clear, specific suggestions for treatment (vs. vague or overly complex responses)			
8. Provided rationale for suggestions and recommendations			
9. Was accepting of my mistakes (vs. critical of my weaknesses)			
10. Allowed me a chance to respond and to react to precepting suggestions for treatment			
11. Elicited appropriate psychosocial information about the patient			
12. Suggested psychosocial interventions when appropriate			
13. Made self-disclosing statements about own experiences, thoughts and feelings			
14. Encouraged family-orientation in treatment			

APPENDIX D

PATIENT-RESIDENT FEEDBACK

Name of physician:

During my interview, the physician:

	Strongly Disagree	Neutral	Strongly Agree
1. Was available			
2. Gave full attention to me			
3. Allowed me a chance to talk about my problems			
4. Made sure he/she understood what I was saying, ans was supportive and sympathetic			
5. Encouraged me to share my thoughts and worries about my problem			
6. Reinforced my efforts to be involved with my own care			
7. Provided clear, specific suggestions for treatment (vs. vague or overly complex responses)			
8. Helped me to understand why he/she was suggesting a specific course of treatment			
9. Was accepting of any confusion I had, or any mistakes I made in following treatment			
10. Allowed me a chance to respond and react to suggestions for treatment			
11. Asked appropriate personal questions about stresses in my life			
12. Suggested solutions to emotional worries and concerns			
13. Talked about his/her own experiences, thoughts and feelings			
14. Asked questions about my family, and how my condition might affect my family			