

# The Dyadic Effect of Communication Apprehension: Theoretical and Pedagogical Implications

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Students in a required pharmacy communication course were administered the PRCA-24 (Personal Report of Communication Apprehension), which is a valid measure of state-like and trait-like communication apprehension, and assigned two pharmacist roles and two patient roles. Students choose their own partners for this graded (0-100) videotaped assignment. Student "pharmacists" must counsel student "patients" about a particular drug. The "patient" can then give the "pharmacist" feedback as to how he/she did, at which time the "pharmacist" may decide if he/she wants to repeat the counseling session. After the first assignment was graded, extensive feedback was given to each "pharmacist" and a second assignment is then completed. The purpose of this study was to examine if there are any dyadic effects associated with communication apprehension (CA). Is the counseling performance of the "pharmacist" affected not only by the CA of the "pharmacist," but also by the CA of the "patient"? Students were recorded as high, medium or low CA using the 75th and 25th percentiles. The results (N=42 pairs) indicated that there was no significant difference between the assignment scores of high, low or medium CA's individually. There was generally significant pairwise dependence within the role play dyads. The grades of one student on both assignments and the improvement between assignments are positively correlated with the scores of the student partner. However, using the pooled regression techniques of Kenny indicated that high CA's in the H-H dyads scored significantly worse on assignment 1 ( $P < 0.05$ ) than any other individuals within pairs, indicating a major dyadic effect. Moreover, when focusing on improvement between the two assignments, the H-H dyads showed the most significant increase compared to other dyads ( $P < 0.05$ ). The L-L pair showed no increase. This pattern has major pedagogical implications.

## INTRODUCTION

Over the past decade, educators have examined the effect of communication apprehension (CA) on pharmacists and pharmacy students(1-3). Communication apprehension (CA), as conceptualized by McCroskey, is defined as "an individual's level of fear or anxiety with either real or anticipated communication with another person or persons."(4) The Personal Report of Communication Apprehension (PRCA-24) is a well-validated self-report instrument used to measure a person's level of communication apprehension(5). While McCroskey and others have examined the individual effect of CA, no literature to date has examined what effect partners with varying levels of communication apprehension have on each other. In other words, do patients who are highly apprehensive about communicating affect pharmacists who are high CA, and vice versa, in regard to the amount and quality of information given and received? Given the increasing counseling role of the pharmacist, the quality of the interaction between pharmacist and patient could have important effects on treatment adherence to medication regimens.

**Dyadic Effects in Communication.** Previous research into the effect of CA on communication has looked for direct patterns whereby the communication apprehension of a person straightforwardly affects the communication pat-

terns of that person. Most of the typical statements about the communication characteristics of CA reflect this paradigm.

However, increasing interest in conversational behavior within the last 15 years has focused theoretical attention on the problem of assessing how personality characteristics are associated with conversational behavior. More specifically, statisticians such as Kenny have highlighted the problem of pairwise dependence within dyads, *i.e.*, how the conversational behaviors of one speaker are affected by the conversational behaviors of the other speaker, and vice versa(6). Such pairwise dependence has been considered mainly a thorny statistical problem to be dealt with in the course of designing an experiment. However, recent statistical approaches have explicated how the analysis of pairwise dependence can provide additional theoretical concepts to account for the relationship between personality and communication.

Kenny argues that there are three main forms of dyadic effects underlying patterns of behavior exhibiting pairwise dependence(6). The first effect has been termed the *actor* effect. Here, a personality trait of the speaker is directly manifested in a consistent pattern of communication by that speaker. Most studies of communication apprehension have searched for an actor effect. The second effect, termed the *partner* effect, links a person's personality with a consistent pattern of behavior exhibited by the conversational partner.

Finally, the *interaction* effect specifies how a particular pattern of behavior is exhibited only with a particular configuration of personality characteristics for members in a dyad. For example, high CA speakers may exhibit certain communication behaviors only when interacting with another high CA partner, while a partner effect would show up across all partners. Actor and partner effects have the individual as the unit of analysis. However, the interaction effect can only be assessed for particular types of dyads.

A comprehensive approach to the assessment of dyadic effects has been taken in the study of conversational behaviors associated with interaction involvement, the extent to which an individual desires to be involved in interactions with others. In a set of studies investigating six minute initial conversations by sixty dyads, the behaviors of both conversational partners were coded and analyzed. The results indicated generally that low involved speakers exhibited less elaborated, more text oriented talk than high involved speakers only when speaking with another low involved person(7). It seems reasonable to believe that the same type of effect may occur with CA partners. This has both professional and pedagogical implications. The amount of information a pharmacist may give a patient may be dependent on the type of conversational partner the patient is, and conversely, patients may ask for more or less information depending on the conversational partner type of the pharmacist. Moreover, in assigning students to pairs for assignments, the amount of discussion and subsequent learning may vary according to partner types.

The purpose of this study was to examine if there are any dyadic effects associated with communication apprehension (CA). Is the counseling performance of the pharmacist affected not only by the CA of the pharmacist, but also by the CA of the patient?

## METHODS

During the Spring quarter of 1993, eighty-four pharmacy students enrolled in a required pharmacy communication course at a major southeastern university were administered the PRCA-24 (Appendix A). Students were in their last quarter of their last year before their year of clerkships. Graded role play assignments have been used for several years at the School of Pharmacy. In these exercises, the student is typically assigned, in advance, a scenario that specifies the type of patient and prescription. The student must prepare for the role play by determining what information must be communicated to the patient. Then the student would videotape the counseling session with a Graduate Teaching Assistant (GTA). The tape would then be graded by the instructor. Such interview assignments are extremely stressful for high CA students who tend to focus on remembering facts, rather than concentrating on patient needs. They have difficulty integrating facts into smooth understandable talk. They also have difficulty in identifying with the role played patient and have little sense of what the patient may be experiencing.

The structure of this assignment was revised so that students chose as their partner a classmate with whom they might be more comfortable. Each student playing the pharmacist was still assigned a different scenario (see sample role play in Appendix B) for the type of patient to be counseled and type of prescription. The dyad partner then role played the specified patient. The students then switched roles to

role play the second scenario. Each student would role play both pharmacists and patients in what was hoped would be a less threatening environment. Only the student who played the pharmacist was graded. However, it was hypothesized that the grade assigned to the performance was probably also affected by the performance of the partner as the patient.

Two other features of the assignment were changed in order to encourage high CA students to gain insight into their counseling performance. First, dyads were booked into a videotaping room for longer blocks of time and were encouraged to record their role plays, view them, discuss them together, and then based upon feedback from the "patient", rerecord them until they were satisfied with their performances. Only the segment chosen by the student "pharmacist" was handed in for grading and detailed feedback from the grader (and instructor, if requested). Then, a second round of role played counseling was performed by the same dyads with new scenarios for each student. Again, only the "pharmacist" performance was graded. A final note is in order. Since both students knew each other's roles in advance, students were encouraged to rehearse the counseling exercise as much as they wanted before the videotaping session.

## Grading Procedures

A graduate teaching assistant was trained by the course instructor to grade the videotaped role plays. A standardized grading format was developed, using a grading sheet (see Appendix C) developed for the assignment. Students were given the grading sheet well in advance of the assignment. The assignment of points to each item on the grading sheet was explained to the students so that they could receive the maximum number of points on the assignment.

The graduate teaching assistant (GTA) met with the course instructor when the first role play assignment was turned in. The grading sheet was explained thoroughly to the GTA (it should be noted this GTA graded the previous year's assignments with a modified version of the grading sheet). Next, several videotapes were randomly selected and both the GTA and course instructor graded a videotape independently, marking their scores for each item on their own grading sheets. The course instructor and GTA then compared their scores for each item until agreement was reached on the appropriate item score. Another videotape was graded in this manner and this procedure was repeated until the instructor and GTA were within two total points of each other on two consecutive videotapes. It took seven videotapes to reach this juncture. The GTA then graded all of the remaining videotapes.

When all of the videotapes for assignment one were graded, five videotapes were randomly selected by the course instructor and regraded without knowing the GTA's point assignment. This was done to assure overall consistency in grading. No discrepancies greater than three total points were found on any of these tapes.

The videotape grading sheet was given back to each student with the points assigned to each item and feedback (for improvement and praise) was provided via written comments under each item. Students were encouraged to discuss their evaluations with the course instructor. Grades for both rounds of the assignment were marked out of 100 points using the same grading criteria.

The theoretical question of interest addressed in this

**Table I. Means and standard deviations for Assignments 1 and 2 by dyadtype**

Dyadtype	N of dyads	Assignment 1	Assignment 2	Difference score
H—H	3	78.17 (13.29)	89.33 (3.82)	11.17 (9.50)
H—M	9	88.33 (2.57)	91.0 (3.08)	2.67 (2.88)
H—L	4	85.50 (7.77)	87.75 (4.79)	2.25 (7.80)
M—M	9	84.39 (3.66)	87.56 (6.04)	3.17 (5.25)
M—L	9	87.72 (6.08)	91.39 (5.47)	3.67 (4.73)
L—L	4	85.63 (3.47)	86.75 (5.27)	1.13 (2.39)

Standard deviations are listed in parentheses below the means.

paper is whether there was any evidence of a dyadic effect associated with CA. Was the counseling performance (the grade assigned on each role play) of the “pharmacist” affected not only by the CA of the “pharmacist”, but also by the CA of the “patient”?

Establishing the existence of a dyadic effect in these role play situations would have theoretical and pedagogical import. First, any theory attempting to account for the impact of CA upon communication competence would have to account for such a dyadic effect. Secondly, the method of pairing students to form dyads for such a role play assignment should coincide with the nature of such dyadic effects. It may be possible, for example, that dyads composed of two high CA students should be avoided because both students perform poorly and fail to improve in their counseling of patients.

## RESULTS

The total score for the PRCA-24 ranged from 30 to 105 ( $X = 66.1$ ,  $SD = 17.8$ , Cronbach’s Alpha = 0.956). It should be noted that four of the initial 42 dyads were eliminated from the final statistical analysis due to incomplete data on the PRCA-24. For purposes of determining dyad type, participants were recoded as high, medium and low CA using the 75th and 25th percentiles (80 and 53 respectively). The dependent measures consisted of the student’s grades for the first and second role play assignments, and the difference score consisting of the grade for Assignment 2 minus the grade for Assignment 1. The means and standard deviations of the dependent measures for each of the dyadtypes are listed in Table I.

The first step in assessing any possible dyadic effects was to check for pairwise dependence in the dependent measures (Assignment 1, Assignment 2, and the difference score for the assignment grades, *i.e.*,  $Assg2 - Assg1$ ). The intraclass correlation coefficient(6) was significant for all three measures ( $Assg1: r = 0.446$ ,  $F(37,38) = 2.61$ ,  $P < 0.001$ ;  $Assg2: r = 0.410$ ,  $F(37,38) = 2.39$ ,  $P < 0.002$ ;  $Diff: r = 0.289$ ,  $F(37,38) = 1.81$ ,  $P < 0.018$ ).

Given this significant pairwise dependence, the statistical analysis of the results was performed using the pooled regressions technique of Kenny(8). This approach has dis-

tinct advantages over other statistical models for the analysis of dyadic effects. Unlike the dyadic procedures of Kraemer and Jacklin(9), Mendoza and Graziano(10), and Kenny and LaVoie(11) that require precisely specified designs for pairing speakers, the pooled regressions approach is flexible in imposing no constraints on the nature of the dyads observed and in allowing for designs with small sample sizes. Unlike the P1 approach(12,13) which also allows for the analysis of naturally occurring configurations of dyads, Kenny’s pooled regressions approach does not require converting interval level data to ordinal level data. Given our stance that students should be allowed to choose their own partners for this graded assignment, Kenny’s pooled regression approach was considered the most appropriate and the most powerful analysis for these data. It should be noted that when students chose their partners, they did not know the partners’ CA scores.

In simplest terms, Kenny’s(8) pooled regressions approach allowed for communication apprehension to be analyzed as a mixed independent variable exhibiting systematic differences both within and among dyads in the design. To analyze the actor, partner and interaction effects for a mixed independent variable, two regression equations were required. First, difference scores within each dyad were computed for both the independent and dependent variables. The within dyad difference score for the dependent variable was then regressed on the within dyad difference score for communication apprehension with no intercept fitted. The second regression analysis was between dyads and regressed the average score for the dependent variable of each dyad on the average communication apprehension score for each dyad plus any additionally specified interaction effect for types of dyads. The parameter estimates from these two regression analyses were then inputted to a series of formulae estimating the actor and partner effects and providing a test of their significance.

Kenny’s pooled regressions approach also allows flexibility in specifying interaction effects that focus on systematic differences among types of dyads. Whereas interaction effects are often specified in a multiplicative form, Kenny points out that the interaction effect may be coded in other forms that are more theoretically appropriate. Since our

concerns focused on whether the H-H dyads were distinctively different than other dyads, the interaction effect was coded as +1 for the H—H dyads and 0 for all other dyads. In addition, a second interaction effect was coded as +1 for the L—L dyads and 0 for all other dyads. This second interaction effect assessed whether the L—L dyads were distinctively different than the other dyads. These two interaction effects were added to the between dyads regression equation. The regression coefficients and significance tests for these two interaction effects were read directly from the between dyads analysis with no adjustments needed.

A pooled regressions analysis was run three times, once for each of the dependent variables: grade on the first assignment, grade on the second assignment, and the difference score representing the change from the first assignment to the second assignment. The coefficients reported for the three dyadic effects are in standardized form because the raw data for all variables had been divided by the respective standard deviation of these variables(8). Alpha was set at 0.05.

For the first role play assignment, the actor effect (+0.246,  $P < 0.044$ ) and the interaction effect for the H—H dyads (-1.459,  $P < 0.019$ ) were significant. The interaction effect for the L—L dyads (0.602,  $P < 0.081$ ) approached significance. The partner effect (+0.047,  $P < 0.371$ ) was nonsignificant.

For the second role play assignment the partner effect (+0.345,  $P < 0.012$ ) and the interaction effect for the L—L dyads (+0.698,  $P < 0.055$ ) were significant. The actor effect (+0.129,  $P < 0.195$ ) and the interaction effect for the H—H dyads (-0.527,  $P < 0.403$ ) were nonsignificant.

For the difference score indicating improvement from the first assignment to the second assignment, the partner effect (+0.258,  $P < 0.035$ ) was significant. The interaction effect for the H—H dyads (+1.062,  $P < 0.0714$ ) approached significance. The actor effect (-0.144,  $P < 0.153$ ) and the interaction effect for the L—L dyads (-0.011,  $P < 0.973$ ) were nonsignificant.

## DISCUSSION AND SUMMARY

The results indicate there are major dyadic effects associated with CA in the interpersonal context of pharmacy students role playing counseling sessions with a patient. First of all, there is significant pairwise dependence within the role play dyads. The grades of one student on both assignments and the improvement between assignments are positively correlated with the scores of the student partner. Generally, dyad partners either do better together or do worse together.

On Assignment 1, the major manifestation of CA was found in the extremely poor performance exhibited by the H—H dyads. Two high CA students were both likely to receive poor scores on the assignment. There is something quite distinctive about two high CAs in the same dyad that leads to mutually poorer performance on the first assignment. In fact, when the performance of the H-H dyads is controlled for statistically, there is a significant actor effect whereby high CAs tend to do better on the first assignment. But this actor effect holds true only when a high CA is in a mixed dyad (*i.e.*, has a medium or low CA partner). Thus, high com aps do better on Assignment 1 when paired with a medium or low com ap. but perform disastrously when paired with another high com ap. In addition, the L—L dyads tend to do better than the actor effect for communi-

cation apprehension would predict. As is evident in Table I, the L—L dyads do better than the M—M and H—H dyads.

For Assignment 2, the pattern of dyadic effects changed considerably. First of all, the actor effect for communication apprehension became nonsignificant, although it was still in the same direction. Secondly, for Assignment 2 there was a significant partner effect whereby partners of high CA students received higher grades and conversely partners of low CA students received lower grades. Dyad composition still seemed to be important, but in a distinctly different way than for Assignment 1. The H—H dyads were no longer significantly poorer than the other dyads as may be seen in Table I. Their improvement in scores though is primarily attributable to the positive partner effect that each high CA dyad member has on the other. Similarly, the L—L dyads should do disastrously given that there is a poor partner effect for each person. However, the interaction effect for L—L dyads is + 0.698, indicating that the L—L dyads do better than predicted by the partner effect alone. Low com aps probably are not affected as much by a poor partner as are medium and high com aps.

Finally, the dyadic effects for the improvement in grades between the first assignment and the second assignment include a significant partner effect and a marginally significant interaction effect for the H—H dyads. The partners of high com aps improved significantly more from the first assignment to the second assignment than partners of medium and low com aps. This was especially so for the H—H dyads who improved considerably from their disastrous performance on Assignment 1. Whereas the H—H dyads performed more poorly than the other dyad types on the first assignment, they managed to catch up with the other dyads on the second assignment. The H—H dyads seemed to benefit the most from having a second round of role plays. In contrast, the L—L dyads exhibited the least amount of improvement between the two assignments. They seemed to benefit the least from having a second round of role plays.

Several possible explanations come to mind for the patterns identified. First of all, it appears that high CAs are more dependent on their dyad partners than low CAs. High CAs did well when paired with a medium or low CA partner, especially on the first assignment. But when two high CAs were teamed together, it is possible that they both looked to each other to set the flow of their interaction. They both seemed to flounder together for lack of a partner to set direction and tone for their interaction. But after receiving feedback from the instructor, they were able to focus more on what they were to accomplish as a dyad and their grades increased considerably.

The other major factor that may underlie these data is the apparent lack of identification of low CAs with the second assignment. The instructor noted that the low CA's seemed to feel little need to improve and took the second round of role playing rather lightly. In fact, upon reviewing the videotape of one high CA student who complained about her grade, the instructor noted that the low CA partner had taken her role as patient very lightly and had provided minimal support for the high CA role playing the pharmacist. Low CAs may evidence so little anxiety about communication that they may exhibit little felt need to

<sup>1</sup>Weaver, J.B. III, Fitch-Hauser, M., Thomas, L.T. and Villaume, W.A., "Exploring the impact of gender-role schematicity on communication anxiety," paper presented at the 1993 Annual Convention of the Speech Communication Association, Miami Beach, FL., November, 1993.

improve their communicative performance. This attitude seems to make them poor dyad partners for the purpose of practicing and improving role played performance. In contrast, the best dyad partners over both assignments were high CAs, who probably were worried enough about their performances that they seriously processed the feedback they obtained from their instructor after the first assignment. Also, high CAs may have made good partners given the aforementioned focus on their partners for clues as to the direction and flow of interaction. Such an orientation would provide considerable support and assistance for another student role playing a pharmacist.

Recently, in assessing the gender role orientation associated with Weaver *et al.*,<sup>7</sup> reported that high CAs tend to be communally oriented whereas low CAs tend to be agenticly oriented. Such a basic orientation would account for the features noted above. Highly agentic students might be expected to just do the first assignment and then to consider it redundant to have to do the assignment again. Highly communal students would be expected to focus more on the interactional inclinations of their dyad partners and to want to support the role play of their partners. Thus, highly agentic students should show a greater individual orientation to the task and a weaker dyadic orientation, whereas highly communal students should show the opposite pattern. This pattern is in essence the pattern of dyadic effects reported in this study. This pattern has major pedagogical implications. If there is only to be one round of counseling role play, high CAs should not be allowed to pair with other high CAs. But if there are to be two rounds of counseling role plays with feedback provided from the instructor after the first round, then the H—H dyads will catch up to the other dyads during the second round. In the end they may even learn more from being paired with another high CA. Future research should test whether their improvement may last longer than the improvement of high CAs paired with medium or low CAs. Finally, it might be wise to eliminate L—L dyads if there are to be two rounds of counseling role play because these dyads do not seem to improve from round one to round two.

This study is theoretically important because it presents initial evidence of dyadic effects associated with CA in the interpersonal context. The results of this study suggest that it would be wiser to look for the relationship between CA and conversational behaviors in terms of partner and interaction effects rather than in terms of straightforward actor effects. Future research is needed to assess the nature and extent of these dyadic effects. Should we be able to replicate the pattern of dyadic effects associated with CA, future theories about the causes of CA will need to account for why CA leads to partner and interaction effects rather than actor effects.

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## APPENDIX A.

### Personal Report of Communication Apprehension (PRCA)

Directions. Please indicate in the space provided the degree to which each statement applies to you by marking whether you: 1) Strongly Agree, 2) Agree, 3) Are Undecided, 4) Disagree, or 5) Strongly Disagree with each statement. There are no right or wrong answers. Many of the statements are similar to other statements. Do not be concerned about this. Work quickly, just record your first impressions.

- \_\_\_\_\_ 1. I dislike participating in group discussions.
- \_\_\_\_\_ 2. Generally, I am comfortable while participating in a group discussion.
- \_\_\_\_\_ 3. I am tense and nervous while participating in a group discussion.
- \_\_\_\_\_ 4. I like to get involved in group discussions.
- \_\_\_\_\_ 5. Engaging in a group discussion with new people makes me tense and nervous.
- \_\_\_\_\_ 6. I am calm and relaxed while participating in group discussions.
- \_\_\_\_\_ 7. Generally, I am nervous when I have to participate at a meeting.
- \_\_\_\_\_ 8. Usually I am calm and relaxed when participating at meetings.
- \_\_\_\_\_ 9. I am very calm and relaxed when I am called upon to express an opinion at a meeting.
- \_\_\_\_\_ 10. I am afraid to express myself at meetings.
- \_\_\_\_\_ 11. Communicating at meetings usually makes me uncomfortable.
- \_\_\_\_\_ 12. I am very relaxed when answering questions at a meeting.
- \_\_\_\_\_ 13. While participating in a conversation with a new acquaintance, I feel very nervous.
- \_\_\_\_\_ 14. I have no fear of speaking up in conversations.
- \_\_\_\_\_ 15. Ordinarily, I am very tense and nervous in conversations.
- \_\_\_\_\_ 16. Ordinarily, I am very calm and relaxed in conversations.
- \_\_\_\_\_ 17. While conversing with a new acquaintance, I feel very relaxed.
- \_\_\_\_\_ 18. I am afraid to speak up in conversations.
- \_\_\_\_\_ 19. I have no fear of giving a speech

- \_\_\_\_\_ 20. Certain parts of my body feel very tense and rigid while giving a speech.
- \_\_\_\_\_ 21. I feel relaxed while giving a speech.
- \_\_\_\_\_ 22. My thoughts become confused and jumbled when I am giving a speech.
- \_\_\_\_\_ 23. I face the prospect of giving a speech with confidence.
- \_\_\_\_\_ 24. While giving a speech I get so nervous, I forget facts I really know.

**Scoring**

Group= 18-item1+item2-item3+item4-item5+item6  
 Meeting= 18-item7+item8+item9-item10-item11+item12  
 Dyad= 18-item13+item14-item15+item16+item17-item18  
 Public= 18+item19-item20+item21-item22+item23-item24  
 TOTAL= group+meeting+dyad+public  
 Population mean = 65.6 Standard deviation 14.5  
 Normal range 51-79

High communication apprehension is defined as scores above 80.

**APPENDIX B. SAMPLE ROLE PLAYS**

Drug & Indication: Pepcid (famotidine); Ulcer  
 Confederate: Be the patient with an active duodenal ulcer.  
 Major Concern: Ask questions regarding discontinuing the medication after the ulcer "heals".  
 Subtle Concern: Be concerned about needing longterm drug therapy.

Drug & Indication: Diabeta (glyburide); Diabetes  
 Confederate: Be the patient with recently diagnosed DM.  
 Major Concern: Be concerned about receiving an overdosage of the medication if you accidentally miss a meal.  
 Subtle Concern: Be concerned about needing longterm drug therapy.

Drug & Indication: Ortho Novum 777 (norethindrone/ethinyl estradiol); Oral contraceptive  
 Confederate: Be the patient (or husband).  
 Major Concern: Ask questions about the side effects of BCPs. You (wife) had very bad experiences with the previous pill (severe nausea) and have heard that this is a better formulation.  
 Subtle Concern: Be concerned about longterm adverse effects of oral contraceptives.

Drug & Indication: Vicodan (hydrocodone bitartrate/acetaminophen); Pain  
 Confederate: Be the patient. You are in extreme pain due to injuries sustained in a recent car accident.  
 Major Concern: Ask questions about increasing the dosage if the medication is not providing relief.  
 Subtle Concern: Be concerned about becoming addicted to pain pills.

**APPENDIX C. COUNSELING EVALUATION FORM**

- |   |    |
|---|----|
| 1. Introduces self  | 1  |
| 2. Identifies patient or the patient's agent.   | 1  |
| 3. Asks if patient has time to discuss medicine.  | 1  |
| 4. Explains the purpose/importance of the counseling session.   | 4  |
| 5. Asks the patient what the physician told him/her about the drug and what it is treating. What does the patient know or understand about the disease. Use any available patient profile information.  | 5  |
| 6. Asks about and addresses any concerns of the patient prior to information provision.   | 4  |
| 7. Responds with appropriate empathy, listening, attention to concerns. Uses these skills throughout the counseling session.  | 15 |
| 8. Tells the patient the name and indication of the medication.   | 2  |
| 9. Tells the patient the dosage regimen.  | 2  |
| 10. Asks patient if he/she will have a problem taking the medication as prescribed.   | 2  |
| 11. Tailors the medication regimen to the patient's daily routine.  | 5  |
| 12. Explains how long it will take for the drug to show an effect.  | 3  |
| 13. Tells the patient how long he/she might be on the medication.   | 2  |
| 14. Tells the patient when he/she is due back for a refill.   | 2  |
| 15. Emphasizes the benefits of the medication and supports the drug before talking about side effects.  | 5  |
| 16. Discusses major side effects of the drug and whether they will go away in time. Discusses how to manage the side effect or what to do if the side effect does not go away and it becomes intolerable.   | 5  |
| 17. Points out that additional rare (emphasizes this to patient) side effects are listed in the information sheet (to be given to the patient at the end of the counseling session). Encourages patient to call if he/she has any concerns about these. | 3  |
| 18. Uses written information to support counseling.   | 2  |
| 19. Discusses precautions (activities to avoid, etc.).  | 2  |
| 20. Discusses beneficial activities (e.g. exercise, decreased salt intake, diet)  | 2  |
| 21. Discusses drug-drug, drug-food, drug-disease interactions.  | 2  |
| 22. Discusses storage recommendations, ancillary instructions (shake well, refrigerate, etc.).  | 3  |
| 23. Explains to the patient in precise terms what to do if he/she misses a dose.  | 5  |
| 24. Checks for understanding by asking the patient to repeat back key information (drug name, side effects, missed doses, etc.).  | 5  |
| 25. Rechecks for any additional concerns or questions.  | 2  |
| 26. Tells patient to always check medicine before leaving pharmacy.   | 2  |
| 27. Uses appropriate language throughout counseling session   | 3  |
| 28. Maintains control of the counseling session.  | 2  |
| 29. Provides accurate information.  | 5  |
| 30. Organizes the information in an appropriate manner.   | 3  |