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ABSTRACT

A study examined the perceptions of pharmacy students regarding pharmacist-patient communication to determine whether the increased emphasis on the patient counseling role of pharmacists resulted in perceptual differences between students, pharmacists, and faculty. Data were gathered from 25 students, 2 pharmacy faculty, 8 communication studies students, one communication studies professor from a midwestern university, and 5 local registered pharmacists. Subjects responded to 51 questions, employing the Q-methodology, in which statements are sorted (each printed on individual cards) according to an 11-point agree-disagree continuum. Results revealed a similar structure of opinions about communication among pharmacy students, pharmacy faculty, and pharmacists. The composite findings indicated the following concerns about effective pharmacist-patient communication: (1) the degree to which the pharmacist should focus on the patients and their feelings; (2) the difficulty in counseling patients when there is much behind-the-counter work; (3) the expectations of the patients; and (4) the degree of empathy for patients and the type of communication. (One table of data is included; 59 references and 1 appendix containing a descending array of z-scores with item descriptions are attached.) (KEH)

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Pharmacist-Patient Communication: A Structure of Intrapersonal Processes

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Communication in Health Care, Oxford, England, June 24-27, 1990.

Abstract: With increased emphasis on the patient-counseling role of pharmacists, new ideas about their communication are emerging. The purpose of this study was to examine perceptions of pharmacy students regarding pharmacist-patient communication. The results of the study indicated a typical structure of opinions about communication which shows a similarity between pharmacy students, pharmacy faculty, and pharmacists.

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Pharmacist-Patient Communication: A Structure of Intrapersonal Processes

The past years have witnessed an increased emphasis on effective communication between pharmacists and patients, as patient counseling has become a central aspect in the new pharmacist's role. Schools of pharmacy around the country are encouraging their students to increase their communication skills and improve their interaction with patients. But how do pharmacy students perceive pharmacist communication? And are their perceptions different from practicing pharmacists or pharmacy faculty? Those were the questions that prompted this study.

In order to assess opinions about pharmacist communication, Q-methodology was employed. A primary phase of the study was development and administration of a Q-sort for measuring pharmacist communication style. The second phase included the analysis of the data.

Q-methodology provides certain advantages over other methods in behavioral research, indicating appropriateness for this study. Although Q-methodology enabled significant advancement in the study of psychology and education, Stephenson's research method also has resulted in work in areas of communication studies (Nitcavic & Aitken, 1988; Barbato, 1986; Murray, 1986; Stephen, 1985; Barchak, 1984; Cragan & Shields, 1981). Even though the technique has been used in studying everything from intensive analysis of individual cases to marketing research of thousands of people, Q-methodology is particularly effective in research with a small number of subjects, as in this case (n=41). As explained by Casey and Graham (1988): "Q-methodology uses the principle of balanced design to structure variance into both the people who serve as subjects and the statements about the question at issue to which they react. A small number of people suffices to encapsulate the variance in subjects" (p. 2). The method has demonstrated effectiveness in analyzing the "phenomenological world of the individual (or of small numbers of individuals) without sacrificing the power of statistical analysis" (Stephen, 1985, p. 193). The unique capabilities of Q-methodology have resulted in over 1500 studies using the method in the social sciences (Brown, 1986a, p. 72). Recently, Q-methodology also has yielded insights into understanding communication in medicine, particularly related to nurse-patient communication (Dennis 1989; Stokes, 1988; Taylor, 1988; Dennis, 1986; Norris & Grove, 1986; Hitchcock & Larkin, 1986).

The development and use of the Pharmacist Q-Sort in this study was accomplished through the following steps: (a) development of the Q sample to measure pharmacist-patient communication, (b) selection and printing the statements, (c) selection of respondents, and (d) test administration. The process is explained in the "Method" section of this paper. The questions that guided the study were:

1. Is there a common way that pharmacy students view pharmacist communication?
2. Are there perceptual differences between students, pharmacists, and faculty in their views of pharmacist communication?

Background Literature

During recent years, there has been an emphasis on improved communication skills for health care professionals. Certainly concern over various communication styles and skills in medical sciences has long been demonstrated (e.g. Woodford, 1986; Cassata, 1980). As a group, perhaps nurses have made the greatest effort to improve their communication skills, followed by physicians, and most recently pharmacists (Morse & Pilan, 1982; Worobey & Cummings, 1982; Honeycutt & Worobey, 1987). The growing concern over effective patient-pharmacist communication has led to advocacy of improved communication practices and techniques (Covington & Whitney, 1971; Kreps & Thornton, 1984; Carney, 1987; Tindall, Beardsley, & Kimberlin, 1989). There is concern, however, whether instruction in communication studies is adequate for health care professionals.

In a study of health care agencies, Di Salvo et. al found: "that health care practitioners, across occupational subgroups, value most strongly communication which facilitates positive, productive relationships. Relationship-building, listening, motivating, and exchanging feedback and information complete the list of core communication competencies paramount in health care, whether communicating with superiors, subordinates or clientele" (238-239). In addition, they perceived communication with patients as equal or greater importance than communication with subordinates or superiors. Thus, one can assume that health care providers recognize the importance of effective communication, but what unique concerns do Pharmacists have regarding their communication? First, the perception of the American public includes considerable misunderstanding about the training and role of the pharmacist. To some, pharmacists are considered just technicians. The patient may have no concept of the training and knowledge the pharmacist has. Patients often perceive medical doctors as being the best source of information about medication, when in fact, pharmacists are the best source.

Second, patients see pharmacists after they have seen other medical personal. Patients usually spend considerable time and money seeing their physician before they reach the pharmacist. Many patients lack patience when they find themselves spending more time and money, now for help from their pharmacists. Not only do patients have time concerns, but pharmacists may find it difficult to take the time to effectively counsel patients in the middle of filling many prescriptions during the course of the day.

Third, as all medical personnel realize, the patient is generally under stress. When clients come to pharmacists, usually they are ill or someone they love is ill. This stress is a major distractor, which may make it difficult for the patient to listen well.

Fourth, the patient may "feel like a dummy," reflected by the differing knowledge level and inability of patients to understand pharmacy terms (Shaughnessy, 1988). Although most patients probably want to understand their problems and their medications, they may have difficulty with the technical language, the authority image of the medical personnel,

or putting together the different information they receive from their physician and pharmacist.

Fifth, the pharmacy setting may create a problem for pharmacist communication (Polanski & Polanski, 1982). Although a physician can talk privately with a patient, a pharmacist may be unable to do so. The barrier of the raised counter and the presence of other customers or store personnel in the pharmacy area are two major inhibiting factors.

Sixth, the pharmacist may be an individual with high communication apprehension, who finds communication with patients difficult. "Our best estimates are 20-33% of pharmacists will avoid communication whenever possible" (Baldwin, Richmond, McCroskey, Berger, 1982, p. 26). Pharmacy students also have problems with communication apprehension, as evidenced by a report by Baldwin, McCroskey, and Knutson (1979). They found that pharmacy students lacked confidence in their communication ability, approximately 20 percent of whom had significant communication apprehension. Although this proportion is comparable to the general population (Richmond and McCroskey, 1985, p. 34), a communication apprehensive pharmacist may actively avoid talking to patients. Thus, many patients perceive these pharmacists as someone who stays behind the counter, counts "pills," and hands over the medication.

Finally, because of possible increased health needs and hearing problems, the elderly patient may have special communication problems with the pharmacist (Galizia and Sause, 1982). These problems are some of the factors that make effective communication between pharmacists and patients unique and challenging.

The answer to many of these problems may be "more effective counseling." As Gossel (1988) recommended: "Pharmacists should take an active role in counseling patients..." (p. 56). Both trade magazines and scholarly works have demonstrated the concern over effective counseling between pharmacist and patient (Carney, 1987, Smith & Garner, 1987; Woronlecki, McKercher, Flagler, Berchou, Cook, 1982; Schondelmeyer & Trinca, 1983; Puckett, White, Mossberg, Matchett, 1976). According to Robert Bachman, executive director of the National Council on Patient Information and Education (NCPPIE), for example: "The most important thing that a pharmacist can do to ensure proper compliance--including coming in for required refills--is to counsel the patient when presented with the first prescription" (in McCarthy, 1989). According to Epstein (1988), the best counseling strategies are to keep it short, simple, logical, concrete, interesting, and repeat information. Among the various techniques advocated in Pharmacy Times (1982) are careful interpretation of patient attitudes and behaviors. But in the face of the demands of the position, this advice to pharmacists appears oversimplistic. Thompson agreed in a review of health communication, in which she expressed concern over "severe communication problems," but little about the specific problems, "basing their concerns on simplistic principles from basic communication texts. More complex communication theories or principles tend to be applied inaccurately." She found simplistic research led to simplistic advice for the practitioner (pp. 148-9).

The need for effective pharmacist-patient communication is clear: it can ensure patient compliance, catch problems before they become serious, and help patient care. Before one can determine the best ways to improve

pharmacist communication, one needs to know how pharmacists perceive and perform communication. Communication style is an important element in understanding. Honeycutt and Worobey (1987) examined the communicator style of nurses, looking at their interaction with supervisors, peers, and subordinates. In light of additional research linking patient satisfaction with physician communication style (Hall, Roter, and Rand, 1981; Buller and Buller, 1987), it seems likely that such a link may also exist between patient satisfaction and pharmacist communication style. As Worolecki and others (1982) wrote: "pharmacist consultations can have a significant effect..." (p. 1909), leading one to speculate that pharmacist attitudes and skills related to communication can be an important element in successful patient treatment. As Reses and Reses (1980) told pharmacists: "Your attitude and your ability to communicate with your patients are the keys to producing a professional atmosphere in your pharmacy."

Method

Despite its use over the past fifty years, as Stephen (1985) explained, "Q-methodology is one of the least known and least understood quantitative methods" (p. 194). In a "nutshell," Q-methodology is a set of procedures that can be used in studying the subjective nature of ideas. Although originally designed for research in the field of psychology (Stephenson, 1953), the method has received widespread use across many disciplines. Because of Stephenson's training at London University and Oxford University in both the physical and behavioral sciences--a Ph.D. in physics and a Ph.D. in psychology--he developed a method for studying thinking based on his knowledge of physical science.. As Brown (1986a) wrote: "The first axiom of Q methodology is that it is the subjective self (a primitive and undefined term) that is at the center of all meaning." The concern is for "states of mind" rather than "observables in states" (p. 73).

Subjects

The subjects were 25 pharmacy students, two pharmacy faculty, eight communication studies students, one communication studies professor, and five local registered pharmacists. The study was conducted at a university in a mid-western metropolitan area in the United States. All respondents were volunteers. Twenty five percent were male, seventy-five percent were female, which reflected the portion of men and women attending this pharmacy school. Ages of subjects ranged from 20 to 42. Most students were in their early twenties, pharmacists and faculty were in their thirties and forties. The pharmacy students were from three courses, many of whom were completing their last year of study. Regarding pharmacy experience (multiple responses were allowed), the pharmacy students, faculty, and pharmacists indicated having worked in the following settings: 19 in hospitals, 13 in chain stores, 11 in privately owned pharmacies, 3 in HMOs, 1 in a nursing home, 1 in a clinical setting, 1 in academic research. There were nine subjects not affiliated with pharmacy, who were told to complete the Q-sort from their perspective as a patient.

In a school of 185 students, the 25 pharmacy students in the study represented 26 percent of the upper level pharmacy students enrolled. The

faculty and registered pharmacists were included to determine whether there was a tendency for students to think in a pattern similar or different from the professionals. The communication studies subjects were included to give the perspective of patients who should be knowledgeable about effective communication skills.

Q-Sort Apparatus

Q-methodology incorporates into its philosophical underpinnings the importance of language in our culture. The idea is that the way we talk about a given subject defines our perception of that subject. Stephenson, (1986b) indicated that "Q is based on communication and meaning as reflected in the concourse." The concourse is the collection of statements from which the Q-sort statements (sample) are selected. By interviewing people and acquiring statements from their common language, Q-methodology gives a vehicle that manifests our culture (Aitken & Palmer, 1988). By examining the nature of these statements, one can determine the elements that appear in the concourse that should therefore be included in the Q-sort or "sample." The measure is not normative from the standpoint that it will mean the same thing to everyone, but from the standpoint that the Q-sort statements should evoke meaning from everyone.

Selection of Q Sample. The first step was to provide a number of statements for the Q-sort. Consistent with standard procedures in Q-methodology, an effort was made to produce a Q-sort relevant to the subjects in this study (Brown, 1980), so statements were collected primarily from focused discussions of groups of pharmacy students. Interviewees were asked to consider problems in pharmacist-patient communication and their feelings about various aspects of communication. Each statement was recorded, then the statements were considered according to their understandability and relevance to the study. To clarify Q-sort statements, certain sentences were re-worded, combined, separated, and modified, but a minimum of changes were made. Hundreds of statements were evaluated for inclusion in the final Q-sort.

The experimenter grouped the gathered statements according to similarities. After categorizing and recategorizing the statements, certain characteristics emerged that provided the structure for the Q sort. All statements fell into one of several categories: pharmacists' skills, concern for patient, problems inherent in the occupation, personal perspective, time restrictions, counseling or empathy, and judgments. These categories enabled a way of perceiving pharmacist communication. Thus, this informal structure was imposed on the Q sort, based on a number of statements from each of the categories that represented the proportions in the Q concourse, so that each desired element was represented (Brenner, 1988, p. 13). As Brown (1986a) explained:

Statements in a Q sample, unlike items in a conventional rating scale, are not regarded as having a priori meaning, or as being valid measures of a characteristic or trait: Their placement in this or that cell of the design is provisional, and their selection in terms of the structure of the design is for purposes of constructing a Q sample that has the same breadth as the concourse that generated it. (p. 59).

The pharmacist's skills (statements 1, 6, 11, 24, 25, 2, 23, 26) can be characterized by the statement: "I worry because I don't feel that I

can retain all the information that I have been taught in pharmacy school. I have a bad memory anyway." Concern for the patient (statements 27, 3, 28, 29, 12, 22) included: "The pharmacist should always focus on the patient and how or what the patient feels." Problems inherent in the occupation (statements 30, 31, 32, 33, 34, 35, 21, 36, 20) can be typified by: "It seems that the majority of the people out there don't really understand the role of the pharmacist." The personal perspective (statements 37, 38, 39, 19, 40) included such items as: "Communication with patients in a pharmacy setting is difficult for me." Time restrictions (statements 18, 13, 41, 4, 8, 9, 17, 42, 43, 16) were frequently mentioned by the pharmacy students, and incorporated: "A day is only so long, and when a pharmacist is filling 150 or so prescriptions a day, there isn't much time for anything else." Counselling and empathy (statements 44, 45, 51, 7, 46, 47, 15, 48) can be considered by statements like: "I just cringe at how fake some 'empathetic' statements sound." Judgments (statements 49, 50, 14, 10, 5) were represented by statements such as: "It is difficult not to be judgmental, even if you don't let it show to the patient. It is human nature to judge others." To provide a balance of statements to which the respondent could agree and disagree, both positive and negative statements were included.

This 51-statement Q-sort fell within the typical range of 20 and 60 statements (Brown, 1987b, p. 98; Brown, 1986a p. 59). The issue of ratio of Q sorts to the number of statements in the Q sample appears of little importance because in Q one does not know how many factors to expect (e.g. Brown, 1986c, Arrindell and Van der Ende, 1985). This author prefers using a Q-sort that is simply large enough to cover the diversity within the concourse (Brown, 1986c).

Printing Statements. After final Q-sort selection, the statements were randomly ordered and numbered accordingly. The Q-sort (see appendix 1) statements were printed on sheets of paper and cut into small slips (one statement per slip). In this study, small, paper "cards" were adequate because they required little working room during test administration. A title card and each statement was then placed in numerical order and placed in an envelope. Each deck of statements was used only once. A separate answer sheet with the Q-sort instructions, the forced distribution scale, and an area for respondent data was provided with each Q sort deck.

Procedure

The Q-sort is different from most paper-and-pencil measures, in that the respondent sorts statements according to an agree--disagree (pleasure--unpleasure) continuum. Instead of responding with one's degree of agreement to each statement, the respondent sorts each statement to be placed on a grid that shows the relationship between statements.

Forced, Quasi-normal Distribution for Responses. Although the grid for arrangement of Q-statements can be done in a variety of ways, "the Q sort statements are conventionally arrayed in a forced, quasi-normal distribution" (Brown, 1986a, p. 59). Although a statistical case can be made for quasi-normal distribution (Stephen, 1985), "the forced distribution is a model (of the Law of Error) which is designed to help the Q sorter think about the problem" (Brown, 1986c, p. 66). Such forced-choice distribution on an eleven-point scale was advocated by

Stephenson (1989, p. 181). That is, subjects were instructed to place a certain number of statements in each category as follows:

Table One
Statement Distribution

| MOST DISAGREE | | NEUTRAL UNDECIDED | | | | | | | MOST AGREE | |
|------------------|----|----------------------|----|----|---|----|----|----|---------------|----|
| -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| 2 | 3 | 5 | 6 | 6 | 7 | 6 | 6 | 5 | 3 | 2 |

How Results Were Interpreted. Data were analyzed by Van Tubergen's (1975) QUANL computer program, using varimax rotation, which is considered the most widely used program for Q analysis (Stephen, p. 204).

As explained by Dennis (1989), "In Q methodology, categories (dimensions) emerge from the data in a statistically quantifiable manner (factor analysis), yet they are interpreted inductively in a qualitative approach" (p. 7). By looking at the descending array of z-scores and item descriptions, the researcher can examine how a prototype would theoretically arrange the statements on a most-agree to most-disagree continuum.

Consider an application of an explanation by Casey and Graham (1988) regarding interpretation:

In Q-methodology, factor analysis features correlations between each pair of persons (rather than between each pair of items). Each person's array of scores on the [51, in the Pharmacist Q-sort] statements is thus correlated with each other person's array, leading to a [41 x 41] celled table [1681 cells] upon which the factor analysis is performed. Factor analysis bringing out the underlying similarities in these arrays thus clusters the subjects into like-minded groups (instead of clustering items into factors composed of items which evoke similar responses in the overall group of subjects)...We account for the clustered viewpoints (i.e., factors) by careful examination of the typical arrays of the factors, and here we benefit from the variety of statements from different realms of thought selected for the Q-sample....This outlook reflects how an identifiable segment of public opinion actively thinks about the issue in the sense of wrestling with, assembling, and juxtaposing various ideas, notions, concepts, factual observations, epigrams, and symbols into a meaningful viewpoint. (p. 7).

Results and Discussion

A one factor solution appeared to be the best in this case, accounting for 33 cumulative percentage of the total variance ($p < .01$ level). In this particular case, although a multi-factor solution was expected, a one-factor solution seems logical (see results in Appendix 1). Albeit a four-factor solution accounted for 49% of the total variance, each of the three subsequent factors correlated significantly with type one. In addition, all but four subjects loaded significantly on type one. Of the subjects that failed to load on type one, one was a second year

pharmacy student, one was a third year pharmacy student, and two were communication studies students. Thus, one can assume a one-factor solution is most appropriate in this study. What does this mean? A one-factor solution in this case probably indicates that the people in the study all have similar ideas about what pharmacist communication is. A similar thread is woven through the ideas of each group: pharmacists, pharmacy faculty, pharmacy students, and patients.

The composite indicates a number of concerns about effective pharmacist-patient communication. Viewing the blend as a prototype person, this person thinks that the pharmacist should always focus on the patient and how or what the patient feels. He or she thinks most people fail to understand the role of the pharmacist. He or she thinks it is hard to go out and counsel a patient when there is so much work waiting behind the counter, and in fact, this person seems concerned about the time element. On the other hand, he or she would also like to encourage patients to slow down and listen. The prototype person thinks the customer should expect more from the pharmacist. There is definitely a right and a wrong way to communicate, and he or she thinks pharmacists need to know more about how to deal with problem patients. He or she perceives empathy as important. He or she thinks that patients want to know about their medications. This person seems to be a healthy communicator under the pressures of the job, but someone who wants better communication with patients.

Some specific comments from subjects provide insight into their perceptions. Here is a sampling from pharmacy students:

"The most frustrating part of being an R.Ph. is people treating you poorly. (Like you're a machine.)"

"It's hard to forget stress in a matter of seconds and forget how you're really feeling inside and become 'concerned and caring.'"

"We are there to service the patient, so its natural that we need to know how they are feeling."

"I think we look at the ideal role of a pharmacist in school. Once out, we hope to achieve that role 'I'm going to...when I'm a pharmacist.' When we start practicing, something will prevent our achieving that role and we get frustrated and lazy and give up. 'I can't change the system.' Why do I have to change the whole system, why can't I, as one person, make the changes for myself and my patients? Too often we focus on the negative of other pharmacists. I want to worry about me and my role. I won't be able to change them--I just want to do a good job myself."

"It is important to take time for patients and this is something I would like to improve on."

"Sometimes it is very difficult to find the time to counsel patients."

"Part of a pharmacist's job is to explain to the patient what their medicine is and what it does as well as to illustrate to them the importance of compliance. If they can't educate patients in these areas, who will? If the pharmacist's sole duty were to dispense medications, we could very easily be replaced by vending machines."

"In my opinion, counseling the patient is what pharmacy is all about."

In reconsidering the questions that guided the study, the results were not quite what was anticipated. As Stephenson (1987) explained: "The Q sorts, however, are not testable hypotheses; instead, they are hypothesis-inductive. Conditions of so-called mind are so complex that only after analysis, after the effect, can we determine which laws, if any, were at issue" (p. 25). Is there a common way that these pharmacy students view pharmacist communication? Yes. That structured perception appears realistic and competent. Are there perceptual differences between students, pharmacists, and faculty in their views of pharmacist communication? Not in this case. Thus, the study leads us to new questions. What might happen with a more diversified group of faculty from different pharmacy schools, pharmacists from other geographical areas, pharmacists from other nations who work under different cultural and legal restrictions, and patients who are less trained in communication skills? The structure(s) of thought processes about communication might be quite different. In this case there seems to be a unity of thought among pharmacy students, professionals, and patients about what pharmacist-patient communication is. What do they think it should be? Would a comparison between real and ideal communication yield new insights? A follow-up that compares pharmacy student responses during school and five years after school could also give new understandings into the communication process between pharmacists and patients. For now, these pharmacy students seem concerned with the relevant issues, involved in patient needs, realistic about the demands of the profession, and optimistic about their ability to deal with the communication problems they will face.

References

- Aitken, J. E. (1988, Summer). Using Q methodology to teach interpersonal communication. Operant Subjectivity, 11(4).
- Aitken, J. E. & Palmer, R. D. (1988, October). Selecting a Q sample: A study of communication types among students, faculty, and administrators in higher education. (ERIC Document Reproduction Service No. ED 298 590)
- Anido, V. (1986). A comparison of verbal and written communication performance of community pharmacists in Kansas. University of Missouri-Kansas City dissertation.
- Allport, G. W. (1961). Pattern and growth in personality. New York: Holt, Rinehart and Winston, p. 395.
- Arrindell, W. A. & Van der Ende, J. (1985). An empirical test of the utility of the observations-to-variables ratio in factor and components analysis. Applied Psychological Measurement, 9, 165-178.
- Baldwin, H. J., McCroskey, J.C., & Knutson, T. J. (1979). Communication apprehension in the pharmacy student. American Journal of Pharmacy Education, 43 91-93.
- Baldwin, H. J., Richmond, V. P., McCroskey, J. C., and Berger, B.A. (1982, October). The quiet pharmacist. American Pharmacy, NS 22(10), 24-26.
- Brenner, D. J. (1988, October). Audience views of news media credibility: The Missouri yardstick. A paper presented at the national meeting of the Institute for the Scientific Study of Subjectivity, Columbia, MO.
- Brown, S. R. (1971). The forced-free distinction in Q technique. The Journal of Educational Measurement, 8, 283-287.
- Brown, S. R. (1980). Political subjectivity: Applications of Q methodology in political science. New Haven, CT: Yale University Press.
- Brown, S. R. (1986a). Q technique and method: Principles and procedures. In W. D. Berry & M. S. Lewis-Beck (Ed.) New tools for social scientists: Advances and applications in research methods. Beverly Hills: Sage Publications.
- Brown, S. R. (1986b). Review of Kerlinger's 3rd Edition. Operant Subjectivity, 10(1), 23-24.
- Brown, S. R. (1986c). On the ratio of Q sorts to statements. Operant Subjectivity, 9(3), 96-98.
- Brown, S. R. (1986d, January). Voices of authority. Operant Subjectivity, 9(2), 69-70.
- Brown, S. R. (1986e, January). The forced distribution. Operant Subjectivity, 9(2), 63-64.
- Brown, S. R. (1987b, April). A challenge through psychnet. Operant Subjectivity, 10(3), 98-99.
- Brown, S. R. (1988). The ipsative sidetrack. Operant Subjectivity, 11(2), 66-67.
- Buller, M. K. & Buller, D. B. (1987, December). Physicians' communication style and patient satisfaction. Journal of Health and Social Behavior, 28, 375-387.
- Corney, J. C. (1987, October). The pharmacist's duty to counsel. U.S. Pharmacist, 81-88.
- Cassata, D. M. (1980). Health communication theory and research: A definitional overview. In D. Nimmo (ed.) Communication Yearbook 4, New Brunswick, NY.: Transaction-International Communication Association, 583-589.

- Casey, G., & Graham, B. L. (1988, October). Attitudes towards recruitment for the United States Supreme Court: Bork, Ginsburg, and Kennedy. A paper presented at the national meeting of the Institute for the Scientific Study of Subjectivity.
- Covington, T. R., & Whitney, H.A.K. Jr. (1971, November). Patient-pharmacist communication techniques. Drug Intelligence and Clinical Pharmacy, 5, 370-376.
- Dennis, K. E. (1986). Q methodology: Relevance and application to nursing research. Advances in Nursing Science, 8(3), 6-17.
- Dennis, K. E. (1989, October). The real and ideal hospital work environments in juxtaposition. A paper presented at the annual meeting of the Institute for the Scientific Study of Subjectivity, Columbia, MO.
- Di Salvo, V. S., Larsen, J. K., & Backus, D. K. (1986, July). The health care communicator: An identification of skills and problems. Communication Education, 35(3), 231-242.
- Epstein, D. (1988, November 21). More counseling called for in medicating the illiterate. Drug Topics, 132(22), 15.
- Galizia, V. J., & Sause, R. B. (1982, October). American Pharmacy, NS22(10), 35.
- Gossel, T. A. (1988, June). Counseling patients on denture cleansing products. U.S. Pharmacist, 13(6), 56-62.
- Hall, J. A., Roter, D. L., and Rand, C. S. (1981, March). Communication of affect between patient and physician. Journal of Health and Social Behavior, 22 118-30.
- Hitchcock, M. A., & Larkin, B. D., Mygdal, w. K., Clarke, C. M., & Clarke, S. (1986). Affective changes in faculty development fellows in family medicine. Journal of Medical Education, 61 394-403.
- Honeycutt, J. M., & Worobey, J. L. (1987, July). Impressions about communication styles and competence in nursing relationships. Communication Education, 36(3), 218-227.
- Kerlinger, F. N. (1986). Foundations of behavioral research. (3rd ed). New York: Holt, Rinehart and Winston.
- Kreps, G. L., & Thornton, B. (1984). Health communication: Theory and practice. NY: Longman.
- Mauldin, C. R. (1987, November). A segmentation study of attitudes about advertising. A paper presented at the annual meeting of the Institute for the Scientific Study of Subjectivity, Columbia, MO.
- McCarthy, Robert (1989). Recapturing patients who avoid refills. American Druggist, 39-45.
- McKeown, B. F., & Thomas, D. B. (1988). Q Methodology. Newbury Park, CA: Sage Publications, Inc.
- Morse, B. W., & Piland, R.N. (1982). An assessment of communication competencies needed by intermediate-level health care providers. A study of nurse-patient, nurse-doctor, and nurse-nurse communication. Journal of Applied Communication Research, 9, 30-41.
- Norris, L. O., & Grove, S. K. (1986). Investigation of selected psychosocial needs of family members of critically ill adult patients. Heart & Lung, 15, 194-199.
- Polanski, R. E., & Polanski, V. G. (1982, October). Environment for communication. American Pharmacy, NS 22(10), 33-34.

- Puckett, F. J., White, S. J., Mossberg, H. E., Matchett, J.A. (1976). Pharmacist/patient counseling practices. Contemporary Pharm. Pract. 1(2), 67-71.
- Reses, A., Reses, P. (1980, March). Communicating with patients plus your attitude add up to professionalism. Pharmacy Times, 100.
- Richmond, V. P., & McCroskey, J. C. (1985). Communication: Apprehension, avoidance, and effectiveness. Scottsdale: Gorsuch Scarisbrick, Publishers.
- Schondelmeyer, S. W., and Trinca, C. E. (1983, June). Consumer demand for a pharmacist-conducted prescription counseling service. American Pharmacy, NS23(6), 65-68.
- Shaughnessy, A. F. (1988, October). Patients' understanding of selected pharmacy terms. American Pharmacy, NS28(10), 38-42.
- Smith, M. C., & Garner, D. D. (1987, August). Setting a value on patient counseling. U.S. Pharmacist, 12-13.
- Stephen, F. D. (1985, Summer). Q methodology in communication science: An introduction. Communication Quarterly, 33, 193-208.
- Stephenson, W. (1953). The study of behavior. Chicago: University of Chicago Press.
- Stephenson, W. (1967). The play theory of mass communication. Chicago: The University of Chicago Press.
- Stephenson, W. (1987, October). The science of ethics: 1. The single case. Operant Subjectivity, 11(1), 10-31.
- Stephenson, W. (1989). Quantum theory of subjectivity. Integr Psychiatry, 6, 180-195.
- Stokes, S. A., & Gordon, S. E. (1988). Development of an instrument to measure stress in the older adult. Nursing Research, 37, 16-19.
- Ten Ways to Improve the quality of patient communications. (1982, November). Pharmacy Times, 48, 64-66.
- Thompson, T. L., (1984, Spring). The invisible helping hand: The role of communication in the health and social service professions. Communication Quarterly, 32(2), 148-163.
- Tindall, W. N., Beardsley, R. S., & Kimberlin, C. L. (1989). Communication skills in pharmacy practice. 2nd ed. Philadelphia: Lea & Febiger.
- Van Tubergen, N. (1975). QUANL user's guide (Computer program manual). Lexington, KY: Dept. of Communication, University of Kentucky.
- Woodford, P. P. (1986). Communication in the clinical sciences. Clinical and Investigative Medicine, 9(4), 301-303.
- Worobey, J. L., & Cummings, H. W. (1984). Communication effectiveness of nurses in four relational settings. Journal of Applied Communication Research, 12, 128-141.
- Woronlecki, C. L., McKeocher, P. L., Flagler, D. G., Berchou, R., & Cook, J. A. (1982, November). Effect of pharmacist counseling on drug information recall. American Journal of Hospital Pharmacy, 39, 1907-1909.
- Taylor, H. A. (1988). Help orientations of geriatric nursing care givers. Operant Subjectivity, 111, 105-113.

**Appendix 1: Factor One Structure
Descending Array of Z-Scores
and Item Descriptions for Type 1**

Most Agree

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28. The pharmacist should always focus on the patient and how or what the patient feels. (1.65)
14. I feel the customer should expect much more from the pharmacist, besides "Here's your medication." Customers are truly the boss and we should give them what they're paying for: product AND service. (1.50)
31. It seems that the majority of the people out there don't really understand the role of the pharmacist. (1.47)
39. Most people don't even know what a pharmacist does. We appear respectable, but ours is not really a visible profession. People don't understand what we do. We need to get them to understand. (1.45)
13. Pharmacists need to get patients to slow down and listen. (1.27)
7. Sometimes it is hard to go out and counsel a patient in a caring manner when there are ten jobs waiting behind the counter. (1.24)
45. Most patients are upset: due to illness, worry over a loved one, Rx price, frustration due to the doctors, nurses, or other medical providers. It is easier to be empathetic with a happy customer than an unhappy one. Perhaps this is why pharmacists in the field do not show a lot of empathy. (1.20)
18. Pharmacists should take more time to counsel their patients. One thing I want to change, is to make more time for each patient. (1.14)
4. Some pharmacists are extremely busy and don't take the time to counsel patients. Others may not want the personal contact with their patients. (1.09)
3. So many diseases--hypertension, diabetes, atherosclerosis--are silent. Because the patient cannot see a problem they don't worry about it. The pharmacist should help the patient see that the problem is leading somewhere. If the patient understands the ramifications, the patient will be more compliant. (1.07)
12. Pharmacists need to know more about how to deal with problem patients: signs of uneasiness, complaints about not taking the medications, people who don't want to talk, people in a hurry. (1.06)
37. Patients are looking for different things from a pharmacist, so we all can't do the same thing and please everyone. (1.01)
17. Empathetic and active listening are good when there is time, but most patients are unwilling to take 15 minutes with a stranger to tell them their problems. It is these times that the pharmacist must use their communication skills to help the patient open up. (0.94)
8. Recently, I have taken more time to explain medication to the patients and I also "practice" empathy on the job. I thought that would be easy, but it is not as easy as everyone thinks it is. (0.78)
34. Often people "dump" on the pharmacist. The patient is ill, upset, in a hurry. There are problems with doctors and nurses. These people often act inappropriately toward the pharmacist, and the pharmacist just has to take it. (0.67)

11. I worry because I don't feel that I can retain all the information that I have been taught in pharmacy school. I have a bad memory anyway. (0.62)
16. A pharmacist should have the skills to discern which patients want to talk and which ones should only be told the facts quickly so they can be on their way. (0.58)
 1. Taking responsibility and being self-assured isn't too difficult because our knowledge is extensive compared to the patients knowledge. (0.54)
33. There are many problems with pharmacy, but so far very few solutions. (0.43)
35. I'm concerned that the pharmacist as a professional is becoming stagnated, and that makes the job appear so unimportant and more of a routine. Pharmacies should begin offering additional services to the patients. (0.43)
49. It is difficult not to be judgmental, even if you don't let it show to the patient. It is human nature to judge others. (0.40)
29. A pharmacist should help the patient problem-solve. Pharmacists should make suggestions, such as: "Have you thought about..." (0.36)
 9. A day is only so long, and when a pharmacist is filling 150 or so prescriptions a day, there isn't much time for anything else. (0.30)
22. A doctor tells them they're sick and names a disease which patients often don't understand, gives them a script, and then sends them to the pharmacy. The pharmacist gives them the drug and tells them what to do. The patient doesn't understand much of the whole thing. (0.16)
40. The pharmacist must be an authority and sometimes just bluntly stating the facts will do more good for the patient, especially if the patient is in a hurry. (0.11)
32. Patients feel they are being over-charged for underservice. It seems to be a vicious cycle--their frustration carries over to the pharmacists' attitude which the pharmacist displays back to the patient. (0.07)
 6. A good pharmacist is a good educator. (0.03)
42. If the patient is in a hurry, I may just hold on to the bottle. What are they going to do, pull it from my hand? Then I can take an extra minute or two to go over the medication with them. (0.17)
43. I feel totally frustrated when I watch a pharmacist handle customers in the wrong manner. Many don't take the time to put themselves in the patient's shoes. As a result, the pharmacist is always rushing the patient, opposed to the patient rushing the pharmacist. (-0.19)
25. "Real pharmacists" in the "real world" don't communicate very well. (-0.27)
 2. I think the most important skill for a pharmacist is empathy. (-0.35)
21. I am amused at the fact that we have become so computerized in the pharmacy. It appears that the pharmacist stands in front of the tube--venting anxiety--opposed to being out front handling the customer's complaints. (-0.36)
24. I know what to say, but when I'm actually talking to the patient, I get flustered. This is especially apparent when I'm asked a question about an area I am not especially knowledgeable in. (-0.36)

50. Patients worried about pricing certainly get me irritated. So, once the patient brings it to my attention, I immediately get on the defensive. I start trying to justify the cost. (-0.38)
 41. Most pharmacists would rather hide behind a counter than talk to a patient. (-0.40)
 23. It is easy to list the "do's and don't's" with an Rx and not get feedback or read the patient's nonverbals. (-0.42)
 30. Perhaps we shouldn't tell a patient that they might get diarrhea with a medication if they might just through the power of suggestion. Also, we don't want to tell someone that this medication has caused death in patients and scare them away from compliance. (-0.68)
 5. Other people are not going to change their behaviors. Pharmacists have to change their behaviors so they can learn ways to adapt to other health care professionals and workers. (-0.75)
 44. It's hard to empathize with patients, because it hurts. It's easier to build a wall and not get too close. (-0.81)
 36. It's hard for "the scientist" in the pharmacist to be "the humanist" when dealing with patients. (-0.83)
 20. It is difficult to learn good communication skills. Although practice helps, there are too few good examples: among the faculty who teach pharmacy and among pharmacists I see at work. (-1.01)
 15. I know empathy is supposed to help the patient relax, but it makes me feel like I am lying to them. (-1.07)
 46. It is hard to stop and forget about all the pressures and focus on this person's Rx and the information to go with it. (-1.15)
 19. Communication with patients in a pharmacy setting is difficult for me. (-1.15)
 51. I just cringe at how fake some "empathetic" statements sound. (-1.20)
 10. I've found that most patients don't care to know what they're taking or really what to expect from taking the medications. (-1.21)
 26. Touching a patient or customer is artificial and inappropriate. It turns me off. (-1.30)
 48. One time I was in a conversation with someone who was using empathetic statements. They just turned me off. (-1.46)
 47. I have a problem with empathy. To me, it comes off sounding so insincere. (-1.76)
 27. My greatest fear in communicating with a patient is trying to perceive what they want to know. (-1.81)
 38. There is no right or wrong way to communicate. (-2.51)
- Most Disagree