

Annotated Bibliography



Working Group on Counseling and Health Communication

Annotated Bibliography



Quality Assurance Project

Center for Human Services

in collaboration with

The Academy for Educational Development

and

The Johns Hopkins University

USAID Contract No. DPE-5992-A-00-0050-00

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Annotated Bibliography

I. Empirically Validated Studies

J01 — Anderson, J.L. 1979. "Patients' recall of information and its relation to the nature of the consultation." In **D.J. Osborne, M.M. Gruneberg and J.R. Eiser (Eds.) Research in Psychology and Medicine, 2. London: Academic Press.**

A study of patients' recall of information in a rheumatology out-patient clinic found overall recall to be 40 percent. More information was recalled about treatment than diagnosis. Recall varied according to the patient's age, anxiety and the amount of information given. The patients' opinions about the doctors and their consultations were elicited. Consultations were classified according to the patient's level of participation. These factors were not related to the level of recall.

Key words: patient recall; patient participation; rheumatic patients.

J02 — Anderson, L.A.; B.M. DeVellis and R.F. DeVellis. 1987. "Effects of modeling on patient communication, satisfaction and knowledge." **Medical Care 25(11): 1044-56.**

This experimental study investigated the efficacy of two modeling procedures on enhancing patient communication. A pretreatment interview assessed knowledge, assertiveness and other concomitant variables. A total of 150 subjects were randomly assigned to one of three treatment conditions. The two modeling conditions were videotaped presentations of a health educator interacting with a patient (i.e. model) who either asked questions or revealed problems. The control videotape in-

cluded only the educator's presentation; no patient was shown. A subsequent standardized face-to-face patient education session was used to assess the impact of the intervention on patient communicative behaviors. A post-treatment interview assessed knowledge and satisfaction. Subjects who viewed a modeling videotape spoke more than subjects who viewed a control videotape. The bulk of our findings indicated that a question-asking model was generally more effective than a disclosive model in eliciting communicative behaviors. Knowledge scores were found to increase after the intervention, regardless of subjects' verbal participation.

Key words: modeling; intervention; patient question-asking; disclosing problems; knowledge; satisfaction.

J03 — Bain, D.J.G. 1977. "Patient knowledge and the content of the consultation in general practice." **Medical Education 11:347-350.**

The relationship between verbal exchange in doctor-patient consultations and patient comprehension has been measured by means of audiotape recordings. The results provide objective evidence of differences in outcomes for similar presenting illnesses in different social groups, and these results tend to support the hypothesis that people from lower socio-economic classes may not derive as much benefit from medical advice as do those of middle and upper classes. The author identified deficiencies in clinical relationship which if corrected will improve doctor-patient communication in consultations in general practice. If patient comprehension and compliance are viewed as

essential, communicative as well as clinical skills have to be accepted as part of the general practitioner's training.

Key words: patient comprehension; socio-demographic characteristics.

J04 — Bartlett, Edward et al. 1984. "The effects of physician communications skills on patient satisfaction, recall and adherence." *Journal of Chronic Disease* 37(9/10): 755-764.

This study examined the effects of physician interpersonal skills and teaching on patient satisfaction, recall and adherence to the regimen. We studied the ambulatory visits of 63 patients to five medical residents at a teaching hospital in Baltimore.

It was found that quality of interpersonal skills influenced patient outcomes more than quantity of teaching and instruction. Secondary analyses found that all the effects of physician communication skills on patient adherence are mediated by patient satisfaction and recall.

Key words: patient recall; satisfaction; adherence; interpersonal skills.

J05 — Beisecker, A. and T. Beisecker. 1990. "Patient information-seeking behaviors when communicating with doctors." *Medical Care* 28(1): 19-28.

In order to better understand patient differences in question-asking and other information-seeking behaviors when communicating with doctors, 106 rehabilitation medicine patients were studied. Socio-demographic data, attitude measures, interview data and tape-recordings of encounters revealed that patients desired information about a wide range of medical topics but did not engage in many information-seeking behaviors when communicating with doctors. While desiring information, patients regarded doctors as the appropriate

persons to make medical decisions. Regression analyses indicated that patient information-seeking behaviors were more directly associated with situational variables (length of interaction, diagnosis, reason for visit) than with patient attitudes or socio-demographic characteristics. Patient attitudes influenced patient information-seeking behaviors only for patients with interactions lasting at least 19 minutes, indicating that a longer interaction may be necessary for patient attitudes regarding desire for information and participation in medical decisions to manifest themselves in information-seeking communication behavior.

Key words: doctor-patient communication; patient information-seeking; medical encounters; question-asking; consumerism; patient role; rehabilitation clinics.

J06 — Bensing, Jozien. 1991. "Doctor-patient communication and the quality of care." *Social Science and Medicine* 32(11): 1301-1310. [Study 1 only]

In this article a comparison is made between three independent sources of assessment of medical consultations. A panel of 12 experienced general practitioners rated 103 consultations with hypertensive patients on the quality of psycho-social care. There was a high consensus between the judges, resulting in a high reliability score. Two contrasting groups were formed: consultations that were rated high and those rated low in quality of psycho-social care. A comparison was made between this general assessment of the quality of psycho-social care and a more detailed assessment of the same consultations on nine much used communication variables made by trained psychologists. Knowledge about doctor-patient communication proved to predict very well as to which quality group the consultations belonged. A very high percentage was predicted accurately, solely on the basis of these nine communication variables. Affective behavior, and especially non-verbal affective behavior had the strongest predictive power. In the last part of the study a third

source of assessment, i.e. patients' satisfaction was compared with both other sources. Much lower relationships were found, although most were in the predicted direction. Affective behavior seems to be the most important in determining patient's satisfaction.

Key words: quality of care assessment; psychosocial care; patient satisfaction; hypertensive patients.

J07 — Bertakis, K.; D. Roter and S. Putnam. 1991. "The relationship of physician medical interview style to patient satisfaction." *The Journal of Family Practice* 32(2): 175-181.

The present collaborative study of medical interviewing provided an opportunity to collect interviews from 550 return visits to 127 different physicians at 11 sites across the country. Tape-recordings were analyzed using the Roter Interaction Analysis System, and post-visit satisfaction questionnaires were administered to patients.

Physician question-asking about biomedical topics (both open and closed ended questions) was negatively related to patient satisfaction; however, physician question-asking about psychosocial topics was positively related. Physician counseling for psychosocial issues was also positively related to patient satisfaction. Similarly, patient talk about biomedical topics was negatively related to satisfaction, while patient talk regarding psychosocial topics was positively related. Patients were less satisfied when physicians dominated the interview by talking more or when the emotional tone was characterized by physician dominance.

Key words: patient satisfaction; physician question-asking; physician talk; patient talk.

J08 — Bertakis, Klea. 1977. "The communication of information from physician to patient: A method for increasing patient retention and satisfaction." *The Journal*

of Family Practice 5(2): 217-222.

Patients are more satisfied with their physicians when they are given and retain more information about their illnesses. When an experimental group of patients was asked to restate what they had been told, followed by physician feedback, retention of the information was 83.5 percent compared to 60.8 percent in a control group in which this technique was not used. Patient satisfaction was also higher in the experimental group.

Key words: patient satisfaction; retention; physician feedback.

J10 — Boreham, Paul and Diane Gibson. 1973. "The informative process in private medical consultations: A preliminary investigation." *Social Science and Medicine* 12: 409-416.

This paper reports on a preliminary investigation of the informative elements of doctor-patient interaction. The research methods employed in this study provided for an examination of both patients' views and expectations about the provision of information concerning their illnesses as well as their behavior toward seeking such information during their actual consultation.

Our interview data indicated that patients exhibited a surprising lack of knowledge concerning their illnesses even though they attached considerable importance to gaining such information. Moreover, our observations of the doctor-patient interviews revealed that patients- largely because of their own passivity-gained little additional information during the course of their consultation.

Key words: patient expectations; information gain.

J11 — Carter, William et al. 1982. "Outcome-based doctor-patient interaction analysis: Identifying effective provider and patient behavior." *Medical Care* 20(6): 550- .

Three interactional analysis (IA) systems (Bales', Roter's modified Bales and Stiles' "Verbal response modes") were used to characterize behavioral elements of provider-patient dialogues of 101 new patient visits in a general medical clinic. Specific provider and patient behaviors within segments of the encounter (introduction-history, physical exam and conclusion), which were shown to be related to encounter outcomes of knowledge, satisfaction and compliance were examined.

Key words: Interaction Analysis Systems; patient knowledge; satisfaction; compliance; general practice.

J12 — Comstock, Loretto et al. 1982. "Physician behaviors that correlate with patient satisfaction." *Journal of Medical Education* 57: 105-112.

The behavior of 15 internal medicine residents, each with 10 patients, was observed through a one-way mirror. Ratings by the patients of satisfaction with their physicians were also obtained. Patient satisfaction correlated strongly with ratings for physician courtesy and information-giving. Non-verbal behaviors such as eye contact, bodily positioning and physical contact did not correlate with patient satisfaction. The correlations between physician behavior and patient satisfaction did not hold for the four women physicians studied.

Key words: patient satisfaction; physician behavior; internal medicine.

J13 — Davis, Milton. 1971. "Variation in patients' compliance with doctors' orders: Medical practice and doctor-patient interaction." *Psychiatry in Medicine* 2: 31-54.

Doctor-patient interactions were tape-recorded and coded according to a modified system of Interaction Process Analysis. These data, combined with a series of patient interviews and a self-administered questionnaire completed by physicians, were analyzed to determine the extent of patient compliance with doctors' orders and how variations in compliance are influenced by some se-

lected patient characteristics and by the structure and process of doctor-patient relationship.

None of the demographic characteristics of patients investigated here was associated with compliance. However, the ways in which doctors and patients initially fit their activity into the presumably institutionalized patterns of behavior appropriate for doctor-patient interaction and the way they deviate over time from the institutionalized role expectations was found to be related to variations in patient compliance.

Key words: patient compliance; role expectations.

J14 — Davis, Milton. 1968. "Variations in patients' compliance with doctors' advice: An empirical analysis of patterns of communication." *American Journal of Public Health* 58(2): 274-288.

This paper is concerned with the ways in which dimensions of doctor-patient interaction relate to patient compliance. The study group consisted of 154 new patients seen by 76 junior and 78 senior (attending) physicians. Data were collected by means of tape-recording of encounters, patient interviews, self-administered questionnaires completed by doctors, and content analysis of patients' medical records.

Thirty-seven percent of the patients did not adhere to their doctors' instructions. Interaction in the primary doctor visit was not associated with later compliance. However, revisits between an authoritative patient and a physician who passively accepts such patient participation were associated with patient noncompliance. Effective communication is impeded when doctors and patients evidence tension in their relationship. Unless this tension is released, noncompliance will result regardless of the doctor's efforts to achieve solidarity.

Key words: patient participation; compliance.

A01 — John P. Elder, Terry Louis, Omaj Sutsinaputra, Neni Surani Sulaeiman, Lisa Ware, Willard Shaw, Carl de Moor, and Judy Graeff, "The Use of Counseling Cards for Community Health Volunteer Training in the Management of Diarrhea in West Java, Indonesia."

The Indonesian Ministry of Health relies greatly on a network of over a million kader (community health volunteers) to bring primary health care to the village level. The West Java Department of Health's Control of Diarrheal Disease (CDD) Program recently carried out an extensive research and development effort to produce effective job aids for the kader in CDD and a training program to teach their use. A set of counseling cards were produced to provide kader with a tool to diagnose and treat diarrhea and teach the proper use of ORS. Researchers conducted a controlled evaluation in which they measured the cards' effectiveness through observations of kader performance and interviews with mothers they had counseled. In the intervention group, 15 kader underwent two days of training to use the cards when diagnosing and advising treatment for cases of diarrhea in their villages. The 16 control kader received comparable CDD training without the cards. Each group of kader was also given a list of local mothers to counsel. Follow-up interviews were held with those mothers to test their level of knowledge on CDD and to observe their ability to mix ORS properly. Significant performance differences between the intervention kader and mothers, and the control kader were consistently more accurate in their diagnoses and recommendations for treatment. Mothers counseled by the intervention kader also prepared ORS significantly better than the mothers counseled by the control kader.

J15 — Francis, V.; B. Korsch, and M. Morris. 1969. "Gaps in doctor-patient communication: Patients' response to medical advice." *The New England Journal of Medicine* 280(10): 535-540.

Study of 800 outpatient visits to Children's Hospi-

tal of Los Angeles to explore the effect of the verbal interaction between doctor and patient on patient satisfaction and follow-through on medical advice showed 24 percent of patients to be grossly dissatisfied, 38 percent moderately compliant and 11 percent non-compliant. The extent to which patients' expectations from the medical visit were left unmet, lack of warmth in the doctor-patient relation, and failure to receive an explanation of diagnosis and cause of the child's illness were key factors in noncompliance. Complexity of the medical regimen and other practical obstacles also interfered with compliance. There was a significant relation between patient satisfaction and compliance. There was no significant relation between the demographic variables tested and satisfaction or compliance.

Key words: patient satisfaction; compliance; patient expectations; pediatric visits.

J16 — Freemon, Barbara et al. 1971. "Gaps in doctor-patient communication: Doctor-patient interaction analysis." *Pediatric Research* 5: 298-311.

258 visits to a pediatric walk-in clinic were scrutinized using an expanded version of Bales' Interaction Process Analysis. Data analysis consisted of individual case studies and computer programs for descriptive summaries of cases and index scores.

As hypothesized, a distinctive behavior pattern emerged for doctor, parent and child. Doctors were found to talk more but show less emotion than mothers. Almost two-thirds of the mother's communication related to medical history, while the doctor discussed history and treatment but gave little attention to cause, prognosis, and seriousness. In general, outcome of the medical consultation was found to be favorably influenced by having a physician who was friendly, expressed solidarity, took some time to discuss nonmedical, social subjects and gave impression of offering

information freely without the patients having to request it or feeling excessively questioned.

Key words: patient compliance; pediatric visits.

J17 — Greenfield, Sheldon et al. 1988. “Patients’ participation in medical care: Effects on blood sugar control and quality of life.” *Journal of General Internal Medicine* 3:448-457.

The authors developed an intervention designed to increase the involvement of patients in medical decision-making. In a 20-minute session just before the regular visit to a physician, a clinic assistant reviewed the medical record of each experimental patient with him/her, guided by a diabetes algorithm. Using systematic prompts, the assistant encouraged patients to use the information gained to negotiate medical decisions with the doctor. The mean pre-intervention glycosylated hemoglobin values were 10.6% for 33 experimental patients and 9.1% for 26 controls. After the intervention the mean levels were 9.1% in the experimental group ($p < 0.01$) and 10.6% for controls. Analysis of audiotapes of the visit to the physician showed the experimental patients were twice as effective as controls in eliciting information from the physician. Experimental patients reported fewer function limitations.

Key words: intervention; patient involvement; treatment outcomes.

J18 — Greenfield, S.; S. Kaplan and J. Ware. 1985. “Expanding patient involvement in care: Effects on patient outcomes.” *Annals of Internal Medicine* 102: 520-528.

An intervention was developed to increase patient involvement in care. Using a treatment algorithm as a guide, patients were helped to read their medical record and coached to ask questions and negotiate medical decisions with their physicians during a 20-minute session before their regularly

scheduled visit. Six to eight weeks after the trial, patients in the experimental group reported fewer limitations in physical and role-related activities ($p < 0.05$), preferred a more active role in medical decision-making and were as satisfied with their care as the control group. Analysis of the audiotapes of physician-patient interactions showed that patients in the experimental group were twice as effective as control patients in obtaining information from physicians ($p < 0.05$).

Key words: intervention; patient involvement; treatment outcomes.

J19 — Hall, J.; D. Roter and C. Rand. 1981. “Communication of affect between physician and patient.” *Journal of Health and Social Behavior* 22(March):18-30.

The purpose of this research was to identify patterns of patient-provider communication, in particular combinations of verbal and nonverbal (vocal) expression during the medical visit, that are associated with patient contentment with the visit and appointment-keeping. The data used in the analysis were tape-recordings of 50 patient-physician interactions during routine medical visits for chronic disease. The interactions, which were rated by 144 judges, were assessed in three conditions: electronically filtered speech (voice only), original speech (voice and words) and transcripts (words only). Among the affective aspects rated were anger, anxiety, dominance, sympathy, assertiveness and businesslike manner.

Findings indicate that patients’ contentment with the medical visit is related to the ratings of the physician’s communication, but that the relationship for the physician’s verbal communication is opposite that for the physician’s nonverbal communication. The patient’s return for subsequent appointments is also associated with the physician’s expression and anxiety in original (unfiltered) speech. Since affect, in this study, appears to be reciprocated, we suggest that negative physician affect expressed in voice tone with positive affect communicated through words is

interpreted by patients in an overall positive manner, as probably reflecting perceived seriousness and concern on the part of the physician.

Key words: non-verbal communication; patient contentment; appointment-keeping.

J20 — Henbest, R.J. and M. Stewart. 1990. "Patient-centeredness in the consultation. 2: Does it really make a difference?" Family Practice 7(1): 28-33.

The major purpose of this study was to test the hypothesis that patient-centeredness in the consultation was associated with improved patient outcomes. Patient-centred care was defined as care in which the doctor responded to the patient in such a way as to allow the patient to express all of his or her reasons for coming, including: symptoms, thoughts, feelings and expectations. The study took place in the offices of six family doctors. All consultations were audio-taped and the patients completed a questionnaire and two structured interviews with the investigator: one immediately following the consultation and the other two weeks later. Patient-centeredness was found to be associated with the doctor having ascertained the patient's reasons for coming and with the resolution of the patient's concerns. It was also associated with the patient's feeling understood and resolution of the patient's symptoms until confounding variables were controlled. The results of the multivariate analysis suggested that the impact of a patient-centred approach may be part of a package of care, consisting of a doctor whose overall practice allows for the development of personal relationships with patients over time through continuity of care.

Key words: patient centeredness; treatment outcomes; patient satisfaction.

J21 — Heszen-Klemens, I. and E. Lapinska. 1984. "Doctor-patient interaction, patients' health behavior and effects of treatment." Social Science and Medicine 19(1): 9-13.

The purpose of this study was to explore the whole range of patients' health behavior, its connection with doctor-patient interaction (as an independent variable) and with treatment results (as a dependent variable). The direct effect of doctor-patient relationship on the outcome of treatment was also examined. The subjects were 62 outpatients. Two visits of every patient to his physician were tape-recorded and analyzed. Also, two interviews were made with every patient in order to obtain data concerning health behavior. Treatment results were evaluated by physicians. Doctors' directiveness, their emotional attitude towards the patient, patients' activity and patient partnership status were found to have an effect on patients' health behavior (compliance and spontaneous health activity).

Key words: health behavior; health outcomes.

J22 — Howell-Koren, P. and B. Tinsley. 1990. "The relationships among maternal health locus of control beliefs and expectations, pediatrician-mother communication and maternal satisfaction with well infant care." Health Communication 2(4): 233-253.

The objective of this study was to assess the relationship among mothers' perceptions of control over the health of their children, mothers' expectations about and satisfaction with their infants' pediatric well-child care visit, and selected attributes of pediatrician mother interaction during these well-care visits. Results suggest that pediatrician-mother interaction during well-child visits is responsive to mothers' locus of control beliefs with regard to their children's health and expectations regarding physician interactive behavior. Moreover, pediatrician-mother interaction was predictive of maternal overall satisfaction. These results are discussed both theoretically and within an applied perspective.

Key words: locus of control; patient's expectations; patient satisfaction; pediatric visits.

J23 — Inui, Thomas et al. 1982. “Outcome-based doctor-patient interaction analysis: Comparison of techniques.” *Medical Care* 20(6): 535-549.

Interaction analysis (IA) systems have been devised and applied to doctor-patient dialogues to describe encounters and to relate process to outcomes. Prior work in this area has been typified by the use of single taxonomy for classifying verbal behaviors and limited outcomes (compliance and/or satisfaction). We applied three different IA systems (Bale's, Roter's and Stiles') to 101 new-patient visits to a general medical clinic for which multiple outcomes had been determined: several measures of patient knowledge of problems at conclusion of visit; patient compliance with drugs (over the ensuing three months); and patient satisfaction with the visit (perceived technical, interpersonal and communication quality). Within IA systems, cross tabulations and multiple regressions were performed to relate encounter events to outcomes. Across IA systems, multiple regression R2 and R2 adjusted for the number of independent variables entering were used to characterize strength of relationships. Roter's IA system showed stronger relationships to outcomes of knowledge and compliance than did Bales' or Stiles' systems. R2 for patient satisfaction was identical for Bales and Roter and greater than R2 for Stiles. We conclude that choice of IA system for research or teaching purposes should be based on behaviors and outcomes of particular interest and importance to the user. Based on audio-review of tapes, Roter's approach is less time-consuming and may perform as well as more complex systems requiring transcript analysis.

Key words: Interaction Analysis Systems; patient compliance; satisfaction; general practice.

J24 — Joyce, C.R.B. et al. 1969. “Quantitative study of doctor-patient communication.” *Quarterly Journal of Medicine* 38, 150, 183-194.

Fifty-four encounters between patients with rheumatic complaints and two physicians were tape-

recorded. Patients were then interviewed immediately after, one week or two weeks after the initial clinical encounter in order to assess their retention of information provided during the encounter. No patient remembered all that he/she been told during the encounter. Patient remembered about one-half of the ten things they were told. Most of the forgetting appeared to take place immediately. Statements related to diagnosis and explanation of treatment were most likely to be forgotten. There was no connection between the loss of information and time elapsed between clinical encounter and interview. Also, there was no association between degree of improvement in clinical condition and the amount of information imparted or recalled.

Key words: rheumatic patients; patient recall.

J25 — Kaplan, S.; S. Greenfield and J. Ware. 1989. “Assessing the effects of physician-patient interactions on the outcomes of chronic disease.” *Medical Care* 27(3):S110-S127. [Study 1]

Data are presented for four clinical trials conducted in varied practice settings among chronically ill patients differing markedly in socio-demographic characteristics. These trials demonstrated that “better health” measured physiologically (blood pressure or blood sugar), behaviorally (functional status), or more subjectively (evaluations of overall health status) was consistently related to specific aspects of physician-patient communication.

Key words: physician, interaction with patient; patient, interaction with physician; chronic disease; health outcomes; satisfaction, patient; compliance, patient; intervention.

A02 — Kim, Young-Mi, Jose Rimón, Kim Winnard, Carol Kazi Stella Babalola and Dale Huntington, “Improving Quality of Service Delivery and Client Compliance in Nigeria.” *Manuscript Submitted to Studies in Family Planning* (04-01-91).

This study evaluates the effect of a nurse training program in family planning counseling skills on the quality of service delivery at the clinic level, as well as its impact on the clients' compliance with prearranged appointments. The study used a quasi-experimental design to compare certified nurses who received six weeks of family planning technical training with certified nurses who received, in addition to the six-week technical training, a three-day course in counseling skills. Data was collected through client exit interviews, expert observation and inspection of medical record abstracts. The results indicated that the quality of interpersonal relations, information giving, counseling and follow-up mechanisms can be improved by short-term intensive counseling training. Clients' compliance for attending follow-up visits can also be enhanced.

J26 — Korsch, B.; E. Gozzi and V. Francis. 1968. "Gaps in doctor-patient communication: Doctor-patient interaction and patient satisfaction." *Pediatrics* 42(5): 855-871.

Eight-hundred patient visits to the walk-in clinic of the Children's Hospital of Los Angeles were studied by means of tape-recording the doctor-patient interaction and by follow-up interview. Seventy-six percent of the patient visits resulted in satisfaction on the part of the patient's mother; in 24 percent there was dissatisfaction. The following factors were found to contribute to patient dissatisfaction: notably lack of warmth and friendliness on the part of the doctor, failure to take into account the patient's concerns and expectations from the medical visit, lack of clearcut explanation concerning diagnosis and causation of illness and finally excessive use of medical jargon.

Key words: patient satisfaction; patient expectations; pediatric visits.

J27 — Lane, Shelly. 1983. "Compliance, satisfaction and physician-patient commu-

nication." In R.N. Bostrom (Ed.) *Communication Yearbook* volume 7. Beverly Hills: Sage.

The study examined the different compliance-gaining strategies used by physicians in outpatient clinics and the impact of those strategies on patient satisfaction and compliance. A total of 16 physicians and 121 patients were observed and audio-taped communicating in actual clinical podiatric examinations. The compliance-gaining tactics physicians employed in order to facilitate adherence were coded in terms of 3 strategy coding scheme based on task/informational, personal and threatening clusters. Immediately after the doctor-patient encounter, patients were asked to rate how satisfied they were with their doctor's communication, and they were phoned two weeks after their encounter to determine their level of compliance with treatment instructions.

Statistical analysis revealed that physicians used threatening tactics least when compared to task/informational and personal compliance-gaining tactics. Multiple regression analysis indicated that 34 percent of medical communication satisfaction and 72 percent of stated levels of adherence could be explained by a variety of compliance-gaining strategies used in doctor-patient interaction. The analyses suggest that although patients may be satisfied when their doctors avoid threatening type tactics, adherence results when their doctors use threatening tactics along with personal compliance-gaining tactics.

Key words: compliance-gaining strategies; patient satisfaction; adherence; podiatric examinations.

J28 — Larsen, Katheryn and Charles K. Smith. 1981. "Assessment of non-verbal communication in the patient-physician interview." *The Journal of Family Practice* 12(3): 481-488.

The interview portion of 34 patient-physician visits at a family medical center was videotaped.

Videotapes were screened by two judges in two major nonverbal categories, immediacy and relaxation. Physician and patient were scored separately at 40-second intervals for 11 component parameters of the two major categories. These scores were correlated with patient satisfaction and understanding, ascertained by post-interview questionnaire. For analytical purposes, patients were assigned to low or high satisfaction groups and low or high understanding groups.

Statistically significant differences between low and high satisfaction groups were demonstrated with respect to overall physician immediacy; five individual physician nonverbal parameters; and two individual patient nonverbal parameters. Similar statistical results were obtained for understanding groups.

The preliminary investigation suggests that nonverbal behavior of the physician in the patient-physician interview is important in determining patient satisfaction and understanding.

Key words: non-verbal communication; patient satisfaction; understanding.

J29 — Lau, Richard et al. 1982. "Psychosocial problems in chronically ill children: Physician concern, parent satisfaction and the validity of medical records." *Journal of Community Health* 7(4): 250-261.

This study concerns the psychosocial aspects of treatment for chronically ill children. The English-speaking parents of 44 children 5-13 years of age being seen at five specialty clinics at a large county hospital in Los Angeles, and their attending physicians were the subjects in this study. The parents were interviewed concerning their expectations for the current visit, and the doctor-patient interaction was tape-recorded. Identical categories of information were abstracted from the tape-recording and from a chart review of patients' medical records. Although parents expected 76%

of the psychosocial aspects of care to be covered by the doctor, only one-fourth were actually discussed in the visit. These unfulfilled expectations were associated with lower satisfaction with medical care received ($r=.47$, $p<0.01$). Finally, while doctors recorded about 80% of discussions of symptoms and physical examinations in the patient's medical record, they recorded only 25% of discussion of psychosocial problems.

Key words: psychosocial aspects; patient expectations; patient satisfaction; pediatric visits.

J30 — Lewis, Catherine et al. 1986. "Parent satisfaction with children's medical care: Development, field test and validation of a questionnaire." *Medical Care* 24(3): 209-215. [Study 2 only]

The authors developed a questionnaire to measure parent satisfaction with children's medical encounters, administered it to 104 parents of pediatric patients (field trial 1), and revised it. The revised Parent Medical Interview Satisfaction Scale (P-MISS) was then tested on a new sample of parents whose medical visits were videotaped (field trial 2). On field trial 2, the P-MISS showed a high alpha reliability (.95). The four factor-based subscales identified by field trial 1 showed high alpha reliabilities on field trial 2: physician communication with the parent (.81), physician communication with the child (.93); distress relief (.85) and adherence intent (.86). With the exception of the distress relief subscale, the subscales appear to measure distinct dimensions of satisfaction. Objective ratings of physicians' interpersonal skills to parents during medical interviews correlated significantly with parents' total satisfaction scores as well as with all four satisfaction subscale scores, providing preliminary evidence of the construct validity of P-MISS.

Key words: satisfaction, pediatric visits, physician-patient communication, physician-parent communication, adherence.

J31 — Ley, Philip et al. 1973. “A method for increasing patients’ recall of information presented by doctors.” *Psychological Medicine* 3: 217-220.

Within minutes of leaving the consulting room, patients are frequently unable to recall what their doctor has told them. This paper describes a simple, practical method for increasing recall by the organization of medical information into labelled categories. The success of this technique was demonstrated first in a laboratory experiment with volunteer subjects and then in a naturalistic setting with general practice patients.

Key words: patient recall; family practice.

J32 — Ley, P. and M.S. Spelman. 1965. “Communications in an out-patient setting.” *British Journal of Social and Clinical Psychology* 4: 116-118.

A sample of 47 new attendees at a medical out-patient clinic were interviewed shortly after they had been seen by the consultant to see how much they remembered of what the consultant had told them. Patients’ accounts were taken down and compared with the verbatim record made by the consultant at the time when he interviewed the patient. Patients retained proportionately less of the information the more they were told. Older patients tended to remember more of what they were told than younger patients. Recall was related to the nature of the information given. Of all statements made by doctors instructions are the most likely to be forgotten.

Key words: Information retention.

A03 — Ministry of Health and Eduardo Mondlane University Faculty of Medicine, Mozambique, “Evaluating the management of diarrhoea in health centres in Mozambique.” *Journal of Tropical Medicine and Hygiene*. 91: 61-66.

An evaluation of the health centre management of pediatric cases of diarrhoea, comprising observa-

tion of the consultation, interview of the guardian immediately afterwards and home follow-up was performed in one rural and three urban areas of Mozambique. Oral Rehydration Therapy was advised for 83% of patients, of whom 71% received ORS packets. Eighty-seven per cent of mothers followed up stated that they had given ORT, but only 37% had a solution present at the time of interview. The main weakness in case management was the lack of health education, especially about the quantity of fluid to give, which was reflected in the mothers’ belief that ORT is a medicine to ‘stop the diarrhoea’ and their consequent administration of it like a syrup, one teaspoonful three times a day. The results of the evaluation have facilitated the design of more appropriate health education and health worker training materials and methods.

C01 — PRICOR. October 1989. “Preliminary Findings from Growth Monitoring/Promotion Systems Analysis.” *PRICOR Child Survival Report: Results From Systems Analysis.*

This study examined counseling at Child Nutrition Centers (CNIs) in Togo. Observations of both clinic sessions and feeding and caring practices in the home attempted to demonstrate a relationship between certain provider behavior during counseling and maternal behavior in the home. Additional information was collected through interviews and focus groups to substantiate observations and to test maternal recall. Conclusions were made regarding staff and client behaviors in general. Mothers were able to recall recent key messages but did not demonstrate the incorporation of these messages into their practices at home.

C02 — PRICOR. April 1990. “Operations Research Improves Home Treatment of Malaria in Children.” *PRICOR Child Survival Report: Results from Systems Analysis. [Study 1 only]*

Two problems existed relative to the treatment of malaria with chloroquine in Zaire. One problem was that only 30-50% of mothers used chloroquine when it was necessary and the other is that over half of those who used it did so in a dose too low to be effective. In order to strengthen the capacity of the health center nurses to educate mothers regarding malaria treatment, the nurses were trained in treatment and in health education techniques. Educational materials and messages were developed. Pre- and post-test information was used to determine the extent of mothers' proper treatment of malaria and their knowledge of the correct dosage.

C03 — PRICOR. June 1990. "Using Operations Research to Increase the Effectiveness of Growth Monitoring at Preschool Clinics." PRICOR Child Survival Report: Results from Operations Research.

Staff of a child health project in Zaire realized that very little time was available for clinic nurses to educate mothers as to their children's nutritional status. This study shows how clinics involved in the project experimented with a triage system designed to extend counseling time as much as possible. Counseling time was compared to attendance and mothers' knowledge, both of which were shown to increase when the triage system was put into place.

J33 — Putnam, Samuel et al. 1985. "Patient exposition and physician explanation in initial medical interviews and outcomes of clinic visits." Medical Care 23(1): 74-83.

102 visits to a medicine walk-in clinic were tape-recorded, transcribed, and coded according to the Verbal Response Mode (VRM) system. Questionnaires given before and after the clinic visit and telephone interviews one week and four weeks after the visit were used to measure patient satisfaction, compliance, and change in symptoms. Two verbal exchanges were examined: in the

medical history, the Patient Exposition exchange, which was measured as the frequency with which patients make statements about their illnesses in their own words, and in the conclusion, the Physician Explanation exchange, which was measured as the percentage of physician statements that are factual. These verbal indexes showed correlations with patient satisfaction, but no correlations with patient compliance.

Key words: patient exposition; physician explanation; medical interviews; clinic visits; compliance; satisfaction; health outcomes.

J34 — Rimer, Barbara et al. 1984. "Informed consent: A crucial step in cancer patient education." Health Education Quarterly 17 (supplement): 30-42.

Informed consent is an issue of major importance for cancer patients and for the practitioners who treat them. In this paper we present an overview of informed consent and describe a study of informed consent to cancer treatment conducted at the Fox Chase Cancer Center in which the consultation between the patient and the physician (and/or other health professional) was observed and patients were interviewed. On the average patients recalled less than 40 percent of what they were told. Patients who were told more items recalled more; however, they recalled a smaller proportion of what they were told. Several implications for health education were drawn from the study results.

Key words: cancer patients; informed consent; patient recall.

J35 — Robinson, E.J. and M.J. Whitfield. 1985. "Improving the efficiency of patients' comprehension monitoring: A way of increasing patients' participation in general practice consultations." Social Science and Medicine 21(8): 915-919.

The aim of the investigations reported was to

examine the effects of helping patients to check their understanding of instructions and advice given during their consultations with general practitioners. Three groups of patients were both tape-recorded during their consultation and interviewed immediately afterwards. The groups differed in the written information they were given prior to their consultations. The "Normal" group were informed only that the researcher was interested in how well doctors and patients understand each other. The "Permission" group was explicitly invited to raise queries with the doctor during their consultation. The "Guidance" group was asked to use two specified strategies to check their understanding of instructions and advice given by the doctor. We coded the frequency of questions and comments about treatment which patients produced during their consultations and the accuracy and completeness of their subsequent accounts of the recommended treatment. The "Normal" and "Permission" groups did not differ in either respect. The "Guidance" group produced significantly more questions and comments than the "Normal" group and gave more complete and accurate accounts of the recommended treatment. A partial replication in a different practice produced consistent results.

Key words: patient comprehension; general practice; patient question-asking.

J36 — Robinson, E.J. and M.J. Whitfield. 1988. "Contributions of patients to general practitioner consultations in relation to their understanding of doctor's instructions and advice." *Social Science and Medicine* 27(9): 895-900.

126 patients of 6 general practitioners were tape recorded in consultation with their doctor and interviewed immediately afterwards, and 81 of the patients were interviewed again 2 days later. We related the accuracy of patients' accounts of the instructions and advice they were offered to two characteristics of patient's participation during their consultation: (i) the frequency of spontane-

ous comments or queries about diagnosis, cause, consequences or treatment of the problem presented, and (ii) the frequency of comments and queries which sought to clarify something said by the doctor. The incidence of the latter was unrelated to accuracy of patients' subsequent accounts. However, people who made errors or omissions in both immediate and home interviews in their accounts of instructions and advice offered, were more likely than those who gave accurate accounts to have produced spontaneous comments or queries during their consultation. Whether the doctor accepted, rejected or ignored these ideas was irrelevant to the incidence of post-consultation errors and omissions.

Key words: doctor-patient communication; general practice; consultations.

J37 — Ross, Catherine and Raymond Duff. 1982. "Returning to the doctor: The effects of client characteristics, type of practice, and experiences with care." *Journal of Health and Social Behavior* 23(June): 119-131.

Although a number of policy-makers have suggested that previous experiences with medical care affect subsequent use of physician services, few researchers have examined the issue empirically. We divide the determinants of revisiting the doctor in pediatric practice into three categories: client characteristics, organizational characteristics and characteristics of the doctor-patient interaction; and we develop a causal model. Although, income and education have no direct effects on the frequency of returning to the doctor, they have indirect effects through the organization of health care and experiences within the health care system. Clients who are poorly educated tend to have consistently negative experiences with the health care delivery system. These experiences affect subsequent use of services. Positive experiences with the interpersonal, psychosocial aspects of the doctor-client interaction increase a client's proclivity to return to the doctor while negative doctor-client

interactions decrease the probability of returning to the doctor.

Key words: pediatric visits; psychosocial aspects; patient return.

J38 — Rost, K.; W. Carter and T. Inui. 1989. "Introduction of information during the initial medical visit: Consequences for patient follow-through with physician recommendations for medication." *Social Science and Medicine* 28(4): 315-321.

In this research we tested how the introduction of information reflecting both the patient's and physician's perspective is related to the patient's adherence to physician recommendations for medication. Introduction of information was defined as bi-directional if patients independently offered information or behavior as frequently as they provided the information or exhibited behavior that physicians requested. Thirty random samples of audio-taped dialogue were used to construct estimates of introduction of information during the history, examination and consultation phases of initial ambulatory care visits of 45 older male patients. The data demonstrate that bi-directional introduction of information during the examination segment explains more than half of the variance in patient adherence to physician recommendations for new medication. These findings support the idea that physician willingness to allow patients to contribute input may contribute to partnership's arrival at treatment decisions that have meaning for both.

Key words: negotiation; compliance; medical interview; patient participation; ambulatory care.

J39 — Roter, Debra et al. 1990. "An evaluation of residency training in interviewing skills and the psychosocial domain of medical practice." *Journal of General Internal Medicine* 5: 347-354.

Competent use of interviewing skills is important

for the care of all patients but is especially critical, and frequently deficient in meeting the needs of patients experiencing emotional distress. This study presents an evaluation of a curriculum in communication and psychosocial skills taught to first-year medical residents. A randomized experimental design compared trained and untrained residents' (n=48) performances with a simulated patient presenting with atypical chest pain and psychosocial distress. Evaluation was based on analysis of videotapes, simulated patient report of residents' behaviors and chart notation. Trained compared with untrained residents asked more open-ended questions and fewer leading questions, summarized main points more frequently, did more psychosocial counseling, and were rated as having better communication skills by the simulated patient. The use of more focused and psychosocially directed questions and fewer leading and grab-bag questions was associated with more accurate diagnoses and management recorded in the medical chart. However, no significant difference was found in the charting practices of trained versus untrained residents.

Key words: interviews; psychological; education; medical; internship and residence; internal medicine; psychiatry; primary health care; psychosocial skills; simulated patients.

J40 — Roter, D. and J. Hall. 1987. "Physicians' interviewing styles and medical information obtained from patients." *Journal of General Internal Medicine* 2: 325-329.

This paper investigates the association between physicians' interviewing styles and medical information obtained during simulated patient encounters. The sources of data are audiotapes and transcripts of two standardized patient cases presented by trained patient simulators to 43 primary care practitioners. Transcripts were scored for physician proficiency using expert generated criteria and were content-analyzed to assess the process of communication and information con-

tent. Relevant patient disclosure was also scored from the transcripts based on expert generated criteria. Findings were: (1) On the whole physicians elicited only slightly more than 50 percent of the medical information considered important according to expert consensus. (2) Both open and closed questions were substantially related to patient disclosure of medical information to the physician, but open questions were substantially more so. (3) Patient education, particularly information regarding prognosis, cause, and prevention, was substantially related to patient disclosure of medical information to the physician. (4) Finally, clinical expertise was only weakly associated with patient disclosure of medical information to the physician.

Key words: physician interviewing style; patient information-giving; patient disclosure; simulated patients; primary care.

J41 — Roter, D.; J. Hall and N. Katz. 1987. "Relations between physicians' behaviors and analogue patients' satisfaction, recall and impressions." *Medical Care* 25(5): 437-451.

This paper investigates associations between physicians' task-oriented and socio-emotional behaviors on the one hand and analogue patients' satisfaction, recall of information and global impressions. The study is based on role playing subjects' responses to interactions between physicians and simulated patients. Audiotapes of two standardized patient cases presented by trained patient simulators to 43 primary care physicians were rated by role-playing patients (N=258) and electronically filtered excerpts from the encounters were rated for vocal affect by 37 independent judges. Content analysis was made of the visits' transcripts to assess interaction process and to identify all medical information communicated. Findings revealed that role-playing patients clearly distinguished task from socioemotional behaviors of the physicians. Within the task domain, patient centred skills (i.e. giving information and counsel-

ing) were consistently related to patient effects in a positive direction whereas physician-centered behaviors (i.e. giving directions and asking questions) demonstrated the opposite relationship. A negative pattern of association was also evident between physicians' socioemotional behaviors and patient effects.

Key words: physician-patient communication, physician task behavior, physician socio-emotional behavior, patient satisfaction, patient recall, analogue study, simulated patients, physician performance.

J42 — Roter, Debra. 1984. "Patient question-asking in physician-patient interaction." *Health Psychology* 3(5): 395-409.

Presented is an analysis of data gathered as part of an experimental intervention designed to increase patient question-asking during routine medical visits. Audiotape recordings of two physicians in 123 medical visits were content-analyzed to identify the number, content and form of patient questions, as well as a variety of other interaction variables. These measures were then related to patient satisfaction with care. Findings indicate that the experimental intervention had significant effect on increasing the number of direct questions asked and that these were asked outside of their usual interaction pattern. Further, the relationship between question-asking and satisfaction differed in the two groups.

Key words: intervention; patient question-asking; patient satisfaction.

J43 — Roter, Debra. 1977. "Patient participation in the patient-provider interaction: The effects of patient question-asking on the quality of interaction, satisfaction and compliance." *Health Education Monographs* 5(4): 281-311.

The purpose of this study was to investigate the effectiveness, dynamics, and consequences of a

health education intervention designed to increase patient question-asking during the patient's medical visit.

Data were collected at a Baltimore family and community health center. A total of 294 patients and 3 providers took part in the study. The study design included random assignment of patients to experimental and placebo groups with two non-equivalent (non-randomized) control groups.

Findings included: (1) the experimental group patients asked more direct questions and fewer indirect questions than did placebo group patients, (2) The experimental group patient-provider interaction was characterized by negative affect, anxiety, and anger, while the placebo group patient-provider interaction was characterized as mutually sympathetic, (3) The experimental group patients were less satisfied with care received in the clinic on the day of their visit than were placebo patients, (4) The experimental group patients demonstrated higher appointment-keeping ratios during a four month prospective monitoring period.

Key words: intervention; patient question-asking; patient satisfaction; appointment-keeping.

J44 — Siminoff, L.A.; J.H. Fetting and M.D. Abeloff. 1989. "Doctor-patient communication about breast cancer adjuvant therapy." *Journal of Clinical Oncology* 7(9): 1192-1200.

We studied 100 consecutive patient-physician encounters about adjuvant therapy to determine how well we informed patients about benefits and risks and how clearly we recommended treatment. Evaluation included observation and audio-recording of encounters, patient and physician-completed questionnaires and patient interviews. Patient-physician agreement on the benefits and risks of adjuvant therapy were poor. Poor agreement was partially explained by the observation that patients and physicians exchanged little spe-

cific information. Furthermore, decision-making was compressed. Although this was the first meeting with a medical oncologist for 79 patients (79 percent), 82 (82 percent) made final decisions about treatment by the end of the meeting.

Physicians clearly identified their recommended treatment. Patients generally followed the physician's recommendation except when clinical trials were recommended. Physician recommendations of clinical trials were not as effectively communicated as non-trial treatments.

Key words: cancer patients; patient-physician agreement; decision-making.

J45 — Smith, K.; E. Polis and R. Hadac. 1981. "Characteristics of the initial medical interview associated with patient satisfaction." *The Journal of Family Practice* 12(2): 283-288.

This study examines the relationship between selected interview characteristics, particularly physicians' verbal behaviors, and levels of patient satisfaction and understanding. Twenty-nine initial patient interviews by 11 physicians were videotaped and rated using a modified Bales' technique. Questionnaires provided measures of patient satisfaction and understanding. Results of correlational analysis indicate that higher patient satisfaction was associated with greater interview length, increases in the proportional time spent by the physician in presenting information and discussing prevention, and shorter chart review times. Increased patient understanding was associated with increases in the proportional time spent presenting both information and opinions, close physical proximity, and reduced chart review time.

Key words: patient satisfaction; understanding.

J46 — Snyder, Diehl; J. Lynch and L. Gruss. 1976. "Doctor-Patient communications in a private family practice." *The Journal of Family Practice* 3(3): 271-276.

One-hundred fifty-five randomly selected patients in a private family physician's office were interviewed immediately before and immediately after their visit with the doctor in an attempt to assess the degree of misunderstanding that occurs in doctor-patient communications. Fifty-four percent of these patients either forgot to mention all their medical problems to the physician or they confused or forgot certain instructions concerning their diagnosis or treatment. A X² analysis failed to reveal any significant sex or age differences in the proportions of misunderstandings. There was also no correlation between the number of misunderstandings, the amount of time the doctor spent with the patients, the patients' rating of their own health on a scale of one to ten and the patients' complaints or praises about their medical treatment. The number of years of formal education completed by the patient showed a direct relationship to the number of misunderstandings. Patients on their first three visits to this office tended to misunderstand more of their medical instructions. Furthermore, the study suggested that patients with chronic internal diseases and those who express excessive trust in their physician might have an increased number of misunderstandings.

Key words: patient misunderstanding; family practice.

J49 — Stewart, Moira. 1984. "What is successful doctor-patient interview? A study of interactions and outcomes." *Social Science and Medicine* 19(2): 167-175.

The present exploratory study was undertaken to assess whether patient-centred interviews are related to positive outcomes. The study was conducted in 24 family physicians' offices where 140 doctor-patient interactions were audio-taped. The taped interactions were analyzed using Bales Interaction Process Analysis. Ten days after the audio-

taped visit the patients were interviewed in their home in order to assess their satisfaction with care, their reported compliance and to conduct a pill count.

Bivariate analysis indicated that interviews in which physicians demonstrated a high frequency of patient-centred behavior were related to significantly higher reported compliance and close to significantly better pill counts and satisfaction. Furthermore, in most instances, when the patient and physician scores were considered in combination, there was evidence that the physician's behavior, particularly that sort of behavior which initiated a discussion such as an explicit request for the patient's opinion, had more impact upon outcome than did the patient behavior.

Key words: patient-centeredness; patient satisfaction; compliance; family practice.

J50 — Stiles, William et al. 1979. "Interaction exchange structure and patient satisfaction with medical interviews." *Medical Care* 17(6): 667-681.

The verbal interaction between patients and physicians in 52 initial interviews in a university hospital screening clinic was studied using a new discourse coding system. Factor analysis of category frequencies showed that each interview segment, medical history, physical examination, and conclusion consisted mainly of two or three types of verbal exchange. Patient satisfaction with the interviews, assessed with a questionnaire that yields separate scores for satisfaction with cognitive and affective aspects, was found to be associated with exchanges involving the transmission of information in particular interview segments. Affective satisfaction was associated with transmission of information from patient to physician in "exposition" exchanges, during the medical history, in which patients told their story in their own words. Cognitive satisfaction was associated with transmission of information from physician to patient in "feedback" exchanges during the

conclusion segment, in which physicians gave patients information about illness and treatment.

Key words: affective satisfaction; cognitive satisfaction; patient exposition.

J51 — Svarstad, Bonnie. 1976. "Physician-patient communication and patient conformity with medical care." In Mechanic, D. (Ed.) *The Growth of Bureaucratic Medicine: An Inquiry into the Dynamics of Patient Behavior and the Organization of Medical Care*. New York: John Wiley & Sons.

The purpose of the study was to answer the question, "Why do physicians sometimes fail to achieve the patients' conformity with medication advice?" The design of the study, which began in 1969, included systematic observation of physician-patient interaction, review of medical records and pharmacy files, follow-up interviews with the patients about a week after their clinic visits, and validation of the patients' reported behavior by means of a "bottle check." The study found that the physicians frequently did not discuss their expectations in an explicit manner. Of the 347 drugs prescribed or proscribed, 60 were never discussed during the observed visits. The physicians gave explicit, verbal advice about how long to take the drug in only 10 percent of the 347 drug cases. How regularly the drug should be used was made explicit in about 17 percent of the cases. Of the 131 patients studied, 68 made at least one error in describing what the physician expected. Patients who had a completely accurate perception of what the physician expected were more likely to conform with the physician's expectations. Whereas 60 percent of patients who had a completely accurate perception of what the physician expected conformed with the physician's treatment plan only 17 percent of those who made at least one error did.

Key words: patient conformity; physician expectations.

J52 — Tabak, Ellen. 1988. "Encouraging patient question-asking: A clinical trial." *Patient Education and Counseling* 12: 37-49.

In this pilot study, a printed intervention was tested as an inexpensive alternative with potential for wider dissemination. Sixty-seven family medicine patients were assigned randomly to one of two educational conditions just prior to their medical visit: a treatment booklet stressing the importance of recognizing information needs and encouraging patients to ask questions; or a placebo education booklet similar in format but not in content. The patient-physician interactions were audiotaped to determine the number of questions patients asked, and a questionnaire was administered after each encounter to assess patient satisfaction with care. The mean numbers of questions asked in the experimental and control groups were 7.46 and 5.63 respectively; the mean difference of 1.83 questions was statistically nonsignificant ($p>0.05$). Question-asking did not correlate with reported satisfaction.

Key words: intervention; patient question-asking; patient satisfaction.

J53 — Thompson, S.; C. Nanni and L. Schwankovsky. 1990. "Patient-oriented interventions to improve communication in a medical office visit." *Health Psychology* 9(4): 390-404. [Study 1]

This paper reports on two interventions to improve patients' contribution to communication in a medical office visit. In the first study, women awaiting a medical appointment were randomly assigned to a group that was asked to list three questions to ask their physician or to a control group. Women who listed questions asked more questions in the visit and reported being less anxious. In the second study, a third group that received a message from their physician encouraging question-asking was added. Both of the experimental groups asked more of the questions they had wished to, had greater feelings of control, and were more satisfied with the visit in general

and with the information they received. The two experimental groups did not differ significantly, suggesting that the effect may be attributed either to thinking one's questions out ahead of time or to the perception that one's physician is open to questions.

Key words: intervention; patient question-asking; patient satisfaction.

J54 — Treadway, Judith. 1983. "Patient satisfaction and the content of general practice consultations." *Journal of the Royal College of General Practitioners* 33: 769-771.

Patient satisfaction was measured in interviews with 81 patients after their initial visits to trainee general practitioners. Increased satisfaction was found to be associated with the patient feeling understood, with the patient actually telling the doctor what he or she wanted (verbalizing the request) and with increasing age of the patient. Satisfaction was not associated with patients feeling improvement in their illness. The main conclusion of this general practice study was that encouragement of patients to express requests to their doctor will result in more effective doctor-patient communication and in improvement of the doctor's understanding of the patient's needs.

Key words: patient satisfaction; general practice.

J55 — Wasserman, R.C. et al. 1984. "Pediatric clinicians' support for parents makes a difference: An outcome-based analysis of clinician-parent interaction." *Pediatrics* 74(6): 1047-1053.

Supportive clinician behaviors were studied to determine their impact on parents. Forty initial health supervision visits to a pediatric clinic were videotaped through a one-way mirror. Mothers were interviewed immediately before and one week after the visits to ascertain changes in concerns, opinions of clinicians, perceptions of in-

fants and self-confidence. Mothers also completed a post-visit satisfaction questionnaire. Analyses compared visit outcomes according to high and low levels of maternal exposure to clinician support. Mothers exposed to high levels of encouragement had significant improvement in their opinions of clinicians and higher satisfaction ($p=.02$). Mothers exposed to high levels of empathy had higher satisfaction and greater reduction in concerns ($p<.05$). No significant differences in outcome were found for exposure to reassurance.

Key words: communications, doctor-patient relationship, maternal concerns, satisfaction; clinician-parent interactions; pediatric visits; clinician support.

J56 — Weinberger, M.; J. Greene and J. Mamlin. 1981. "The impact of clinical encounter events on patient and physician satisfaction." *Social Science and Medicine* 15E: 239-244.

Eighty-eight encounters were observed over a one-week period at an outpatient clinic of a university affiliated hospital. Participants were interviewed subsequent to each interaction. Multiple discriminant analysis showed encounters viewed by patients as unsatisfactory to be characterized by greater distance between parties during information gathering, increased amounts of feedback, highly active physicians, and physicians who are on call. Satisfied patients had encounters marked by increased physician use of (1) nonverbal encouragement, (2) questions about family and social situations, and (3) expressions of continuity from previous visits. Physicians were less satisfied in encounters in which they were active, felt pressed to other medical commitments and were on call. The most positive physician assessments occurred when patients were seen as compliant and where humor and nonverbal encouragement were used during the interaction.

Key words: patient satisfaction; physician satisfaction.

J57 — Willson, Pamela and J. Regis McNamara. 1982. "How perceptions of a simulated physician-patient interaction influence intended satisfaction and compliance." *Social Science and Medicine* 16: 1699-1704.

The present study investigated the extent to which competence and courtesy influenced enacted patient perceptions of medical care; as well as how these perceptions related to satisfaction and compliance with the care delivered. Small groups of undergraduates viewed one of four video-tapes on which were depicted a physician-patient interaction for a sore throat problem. Differential levels of competence and courtesy were displayed in the various tapes. While watching the videotape, subjects were asked to assume the role of the sore throat patient. Univariate ANOVAs indicated that the courtesy manipulation influenced the perception of courtesy and general medical satisfaction, while the competence manipulation influenced not only perceived competence but perceived courtesy, general medical satisfaction, and compliance as well. Subjects were able to accurately discriminate the extremes of good and poor physician behavior.

Key words: patient satisfaction; compliance; simulated patient.

J58 — Wolraich, Mark et al. 1986. "Medical communication behavior system: An interactional analysis system for medical interactions." *Medical Care* 24(10): 891-903.

The study assessed the psychometric properties of the Medical Communication Behavior System. This observation system records time spent by the physicians and patients on specific behaviors in the categories of informational, relational, and negative situation behaviors by using hand-held electronic devices. The study included observations of 101 genetic counseling sessions and also assessed the outcome measures of patient knowledge and satisfaction. In addition, 41 of the sessions were rated using the Roter Interactional Analysis System and 20 additional control subjects completed the post

counseling information without being observed to examine the effects of recording the session. Results showed good interobserver reliability and evidence of concurrent, construct and predictive validity. No differences were found between the observed and unobserved groups of any of the outcome measures.

Key words: physician-patient interaction; communication skills; MCBS vs RIAS; patient knowledge; satisfaction; genetic counseling.

J59 — Thompson, S.; C. Nanni and L. Schwankovsky. 1990. "Patient-oriented interventions to improve communication in a medical office visit." *Health Psychology* 9(4): 390-404. [Study 2]

(See abstract above, J53)

J60 — Kaplan, S.; S. Greenfield and J. Ware. 1989. "Assessing the effects of physician-patient interactions on the outcomes of chronic disease." *Medical Care* 27(3):S110-S127. [Study 2]

(See abstract above, J25)

J61 — Kaplan, S.; S. Greenfield and J. Ware. 1989. "Assessing the effects of physician-patient interactions on the outcomes of chronic disease." *Medical Care* 27(3):S110-S127. [Study 3]

(See abstract above, J25)

J62 — Kaplan, S.; S. Greenfield and J. Ware. 1989. "Assessing the effects of physician-patient interactions on the outcomes of chronic disease." *Medical Care* 27(3):S110-S127. [Study 4]

(See abstract above, J25)

II. Dissertations

Appleyard, JoAnn. 1989. "Decisional Control in the Client-Provider Relationship: An Exploratory Investigation in a Primary Care Setting." PH.D. dissertation, University of Illinois at Chicago, Health Sciences Center.

Decision Control, an element in Interaction Model of Client Health Behavior, was examined with adult clients interacting with physicians and nurse practitioners in a primary care setting. The study described client behaviors in achieving decisional control and the relationships among client demographic variables, preferences toward decisional control, actual control behaviors, and the health care outcome variables of compliance and satisfaction with provider behavior.

Written questionnaires were used to measure client preferences toward decisional control, perceptions of provider encouragement of decisional control, and satisfaction. Client behavior regarding decisional control was measured by analyzing transcripts of tape-recorded encounters between clients and providers (60), while data on compliance and a second measure of satisfaction were collected by telephone questionnaire.

The findings did not confirm the hypothesized relationships among the variables. That is, clients who preferred decisional control and who actively participated in the interaction were hypothesized to be more satisfied and to comply than clients who preferred control but did not participate actively. However, the independent variables did contribute significantly to discriminant models for satisfaction and compliance, and there were significant relationships among several of the variables.

Key words: decision-making; patient satisfaction, compliance; primary care.

Curtin, Roberta B. 1987. "Patient-Provider Interaction: Strategies for Patient Compliance." PH.D. dissertation, University of Wisconsin.

Pharmacy students and volunteer patient subjects were enlisted to stage simulated medical consultations in which prescription instructions were communicated. Three classes of variables were considered as they related to the specified outcomes: (1) pharmacy student background characteristics which included both past role socialization experiences and a preconsultation exposure to one of three randomly assigned communication strategies; (2) patient background characteristics, including past experience with the health care system; and (3) the process and content of the interaction that occurred between these two participants in the medical consultation.

The most important finding to emerge from this study was the fact that it is the interaction process and content, specifically with regard to the nature, quality and quantity of the information which is disclosed in the consultation, which is most significantly related to the outcomes of patient satisfaction and patient comprehension and recall of medical instructions.

Key words: information-giving; patient recall; comprehension; satisfaction; compliance.

Curtin, Stephen F. 1985. "World View and the Biopsychosocial Model of Medicine: Medical Resident Behavior and Patient Satisfaction." PH.D. dissertation, Saybrook Institute.

The purpose of this study was to determine if the ability of physicians to apply the biopsychosocial model of medicine_ attend to patients as persons and to strengthen affective bonds_ is linked to the preference of those physicians for organicism as it is measured by the World Hypothesis Scale. Audiotapes were made of nine family-practice residents while they cared for 40 outpatients, and the data acquired was evaluated by means of The

Medical Inquiry Scale. At the same time, each patient completed the Medical Interview Satisfaction Scale and each of the residents answered an exit questionnaire after each patient encounter.

It was hypothesized that patients of residents who prefer the organic world view would be more likely to report high affective satisfaction with the medical encounter than patients of low-preference residents.

The results of the study showed that the affective scores favored the high preference residents ($p < .01$). It is clear from the study that the world view of the resident impacts medical behavior, the physician-patient relationship and patient reports of satisfaction.

Key words: biopsychosocial model; patient satisfaction; family practice.

DeLauro, James P. 1981. "Health Risk Feedback in Physician-Patient Interaction." PH.D. dissertation, University of Pennsylvania.

In this study, feedback about the personal health risk of patients was used to assess the effect of information control on physician-patient relationships, and on patients' subsequent awareness of personal health risk indicators.

Forty-five patients with a primary diagnosis of hypertension, diabetes or obesity were assigned to one of five experimental conditions in which health risk information was either given or withheld from physicians and patients in various combinations. Every patient completed a pre and post test questionnaire designed to assess personal health risk. Feedback was given several days before regularly scheduled office visits which were tape-recorded and analyzed using Bale's Interaction Process Analysis Scale, and a system of content categories developed for this study.

Physicians and patients were found to differ in the primary objectives of their most frequent communications. Physicians' comments were most commonly task-oriented, while patients showed greater concern for the social aspects of the interaction.

Access to health risk feedback had no effect on patients' awareness of personal risk indicators. The control variable of pretest knowledge was significant in explaining post-test knowledge in eight of the ten summary variables analyzed. Observations of the interaction tended to confirm that patient's pre-study attitudes were intensified by the health risk information provided.

Key words: feedback; patient knowledge; hypertension; diabetes; obesity.

Kishi, Keiko I. 1981. "Communication Pattern between Health-Care Provider and Client and Recall of Health Information." D.N.S. dissertation, University of Pennsylvania School of Nursing.

Communication patterns between health care provider and client were analyzed according to Flanders Interaction Analysis System, and the relationship between the communication patterns of the health care providers and the client recall of health information was studied.

Sixty-eight mothers from the lower socio-economic classes were interviewed.

There was a statistically significant relationship between the ratio of client-talk to health-care provider talk and the recall ratio of the client. When clients participated more actively in health teaching sessions, more health information items were recalled by the client. The recall ratio of the client had a significant relationship with the clients race and with repetition of information by the health-care provider.

There was a significant inverse relationship between health-care provider questioning and the recall ratio of the clients. There was a significant inverse relationship between the length of the teaching session and client recall ratio.

Key words: patient participation; patient recall; provider question-asking.

Lober, Rosalie. 1982. "The Relationship of Patient-Practitioner Verbal Interaction to Patient Satisfaction Modified by Patient Psychological Differentiation and Time." PH.D. Dissertation, New York University.

Verbal communication and its effect on patient satisfaction was investigated for 58 pregnant women in four private obstetrical settings. A group of 28 patients, utilizing physicians and a group of 30 patients utilizing midwives were compared on measures of the verbal interaction, patient satisfaction, and the relationship between them. Measures of patient psychological differentiation and time were also measured and compared for patient groups.

Key words: verbal interaction; patient satisfaction; Ob/Gyn.

Moser, Daniel L. 1982. "Physician-Patient Consultations: Communications and Patient Outcomes." PH.D. dissertation, University of Virginia.

This study tested whether the use of the "illness" model in dealing with medical care has any measurable effects on patients as compared to the more traditional "disease" orientation.

Using 13 private and clinic primary care physicians, this study recorded and analyzed visits with the physicians for 139 patients, averaging more than 10 for each physician, in order to ascertain the relative use of the "disease" or "illness" approach to patient problems by the physicians and the physician's and patient's interaction. Patient's

compliance and remembrance of the physician's instructions and descriptions of the patient's medical problems two weeks after the recorded visit were also collected.

A positive relationship between increased addressing of psychosocial dimensions of patients' problems by the physician and patients' compliance and remembrance of instructions was found for lower income patients. Further significant differences were found between the physician's addressing of psychosocial dimensions of the patient's problems and the race and socioeconomic status of patients; there was higher psychosocial addressing of problems by physicians for white middle-class patients.

Key words: biopsychosocial model; patient recall; compliance; primary care.

Rivera, Tovar A.D. 1989. "Patient Values and Satisfaction with a Medical Interview." PH.D. dissertation, University of Pittsburgh.

The present study sought to examine how physician behavior influenced the satisfaction of patients with different value preferences. The acute care visits of 87 patients with one of three physicians at a university student health center were audiotape and physicians verbal behaviors were classified using Roter System of Interaction Analysis. The relative importance patients placed on affective, information-giving, and technical physician behaviors were assessed prior to the medical interview with a self-report measure. Participants completed a satisfaction questionnaire following their visit.

It was hypothesized that physicians' affective, information-giving, and technical behaviors would influence satisfaction, and that greater satisfaction would result when physician communication style matched patients' value preferences. Results did not support the hypotheses that physician behaviors or conformity to patient values predicts satis-

faction. Physicians' positive affect (as perceived by coders) predicted satisfaction, however, accounting for 17 percent of variance. Patients reported more satisfaction when physicians were seen as warm, caring and not angry; physician humor also contributes to that perception.

Key words: value preferences; patient satisfaction; acute care.

Romano, Samuel E. 1982. "An Evaluation of Active Patient Role Orientation Training." PH.D. dissertation, State University of New York at Buffalo.

This research project was designed to evaluate the effects of active patient role orientation (APRO) training on the behavior of ambulatory care patients. At a primary care medical center, 54 adult female patients were randomly assigned to one of three treatment groups. Each group was exposed to one of the following experimental conditions: (1) APRO training, consisting of didactic information and modeling film components which presented active role behaviors; (2) neutral training, consisting of didactic information and modeling film components which presented information about nutrition; and (3) no training.

The major hypothesis of the study was not supported by the results of the data analyses. There was no significant differences found among the treatment groups in the amount and type of responses made by the patients within the initial medical visit; in the patients' level of expressed satisfaction; in the degree of patient compliance recorded; and in the patients return rates for follow-up appointments. Additionally, physicians of the study patients did not significantly differ in their levels of expressed satisfaction across the three treatment groups.

Key words: intervention; patient participation; satisfaction; compliance; appointment-keeping.

Rost, Kathryn M. 1985. "Patient and Physician Anxiety in the Medical Interview: Consequences for Patient Satisfaction and Compliance." PH.D. dissertation, The Johns Hopkins University.

The participants in the study were 87 male patients with multiple chronic medical problems seeing residents and staff physicians for the first visit at a VA general medicine clinic. Compliance measures were available for the 47 patients who received prescription refills or new medications during the visit. Anxiety was unobtrusively measured from audiotapes of medical visits at the beginning, middle and end of consultations by determining the rate of patient and physician "non-ah" speech disturbances. Patient satisfaction was measured by a self-administered scale, and patient compliance was measured by refill obtaining behavior for three months after the visit, a measure previously correlated with physiological changes expected from prescribed medication.

Patients who were less anxious at the beginning and in the middle of the visit were more likely to comply with new medication regimens. Physician responsiveness buffers the detrimental effects of patient anxiety on compliance. More educated patients had a higher probability of compliance if their anxiety increased over the course of the visit. Anxiety reduction had a small influence on patient satisfaction in more educated, anxious patients.

Physician anxiety at the end of the visit had a positive relationship to subsequent patient compliance, although potential mechanisms of influence probably differed between higher and lower educated patients.

Key words: patient anxiety; physician anxiety; patient compliance; chronic diseases.

Stearns, Thomas W. 1980. "The Physician-Patient Relationship: An intervention to Improve Provider-Patient Interaction and Patient Compliance." PH.D. dissertation,

Florida State University.

The effectiveness of a brief workshop tutorial was evaluated by comparing four family-practice residents who received the intervention with four non-tutored control residents. The content of the tutorial reflected previous research implicating a relationship between interactional behaviors of physicians towards their patients and patient compliance. Didactic, videotape modeling and role-play procedures were included in the four-hour tutorial. Assessments were made of both physician and patient interaction behavior, patient compliance and patient satisfaction.

Results suggest that the tutorial workshop was effective in increasing relevant physician interaction behaviors. These behaviors remained stable throughout a six-month period of assessment. However, relationships between these physician behaviors and patient satisfaction were not supported by the present results.

Key words: intervention; patient satisfaction; compliance; family physicians.

III. Unvalidated Studies/No Outcome

Dauber, B. M. Zalar and P.J. Goldstein. "Abortion counseling and behavior change." Family Planning Perspectives 4(2): 23-27.

Between the first week of 1971 and October 15, 1971, 360 women were counseled for abortions at San Francisco General Hospital. A control group (Group 1) of 99 women who had received abortions prior to the institution of pre-abortion counseling program and whose only counseling had consisted of a 10 minute contraception lecture were compared with 99 women (Group 2) who met with a counselor usually 2 weeks prior, 2 times the day before the abortion, just before and after the abortion and just prior to the discharge from the hospital. Evaluation of the two approaches showed that 60 women in Group 1 accepted contraception whereas in Group 2 89 women did.

Key words: counseling; abortion; evaluation.

Dodge, J.A. and D. Oakley. 1989. "Analyzing nurse-client interactions in family planning clinics." Journal of Community Health Nursing 6(1): 37-44.

The nurse-client interactions of 12 taped interviews in 2 family planning clinics were analyzed using 5 client self-care themes and 9 provider responses and the results discussed in terms of Orem's Self-Care Theory. The taped sessions took place at a planned parenthood and a health department clinic. Content analysis was verified by outside raters trained in the methods selected. Client responses emphasized past practice and knowledge, over current intent to practice self care and decision processing. The nurses responded most often by asking questions and providing information, and less often by restatement, directives, support or suggestions. This pattern was found regardless of the nurse's education. The emphasis by nurses on providing information is likely a result of the agency's focus on ensuring that the client makes an informed and voluntary choice. Research has shown however that contraceptive continuation among adolescents was correlated with support and even authoritative guidance given by the provider.

Key words: family planning; self-care; nurse behavior.

Huntington, D.; C. Lettenmaier and I. Obeng-Quaidoo. 1990. "User's perspective of counseling training in Ghana: The mystery client trial." Studies in Family Planning 21(3): 171-177.

This report describes an evaluation method that combines clinic observation with an exit interview methodology. Eighteen women posing as clients were requested to visit three clinics with trained and three clinics with untrained family planning counselors. These clients (called mystery clients in Ghana) were later interviewed to uncover any perceived differences between the consultations.

The effect of training was evident. Trained counselors consistently provided more complete information about all available contraceptives. However, both trained and untrained counselors often treated younger clients with disrespect or refused to give them the information they requested. This behavior indicated the need to strengthen the values clarification section of the counselors' training sessions.

Key words: evaluation; counseling; mystery client; family planning; Ghana.

Kopp, Z.; K. Cox and P. Marangoni. 1989. "Implementing a counseling training program to enhance quality of care in family planning programs in Ecuador." Unpublished paper.

During 1988 and 1989, a counseling training program was developed for all staff member of APROFE. The program was jointly developed by International Planned Parenthood Federation/Western Hemisphere region, (IPPF/WHR), and APROFE which is an Ecuadorian Family Planning Organization affiliated with IPPF/WHR. A baseline client survey was carried out to determine levels of client satisfaction and contraceptive knowledge at 6 clinic sites. Additionally, the quality of client-provider interaction was assessed by direct observation. Seven training workshops were provided for over 100 staff members of APROFE who interact with clients: secretaries, receptionists, physicians, nurses, motivators, educators, counselors, and nurse-midwives. The impact of the program was assessed by pre- and post-workshop Knowledge, Attitude, and Practice tests and by subsequent observations of client-provider interactions.

Key words: evaluation; counseling; family planning; Ecuador.

Marcus, R.J. 1979. "Evaluating abortion counseling." Dimensions in Health Service 56(3): 16-18.

The impact of counseling on women who requested abortions at the Vancouver general Hospital in Canada was assessed in a follow-up study of 401 of the women who received counseling and 404 of the women who did not receive counseling. No significant differences were found between the counseled and non-counseled groups in respect to the proportion of women who 1) subsequently practiced contraception; 2) returned for repeat abortion during the next 12 months; 3) returned for medical check-ups following the abortion; and 4) were willing to consider alternatives to abortion. The counseled did experience fewer negative feelings prior to and immediately following the abortion; however, these differences disappeared six months later. The group which received counseling reported more satisfaction with their level of contraceptive knowledge.

Key words: counseling; abortion; satisfaction.

Reynolds, V; M.H. Puck and A. Robinson. "Genetic counseling: An appraisal." Clinical Genetics 5(3): 177-187.

To assess the impact of genetic counseling interviews with former recipients of the counseling (consultands) in the Genetic Counseling Clinic of the University of Colorado were conducted. The majority of consultands retained the information over extended periods of time. Over one half of the consultands found the counseling helpful. A positive correlation was found between degree of satisfaction and level of understanding. 41 couples were influenced in their family planning by the genetic counseling. Genetic counseling was of limited value when the counselor was unable to satisfy the expectations of the consultand for enlightenment about the cause of the problem, particularly those of unknown etiology.

Key words: genetic counseling; client expectations; satisfaction.

Schuler, Sidney et al. 1985. "Barriers to effective family planning in Nepal." *Studies in Family Planning* 16(5): 260-270.

To investigate why family planning (FP) services in Kathmandu Valley of Nepal are underused, a study was initiated under the auspices of the Nepal Family Planning/Maternal Child Health Project. The study was intended to provide a user perspective, by examining interactions between FP clinic staff and their clientele. "Simulated" clients were sent to 16 FP clinics in Kathmandu to request information and advice. The study revealed that in the impersonal setting of a family planning clinic, clients and staff fall into traditional, hierarchical modes of interaction. In the process, the client's "modern" goal of limiting her family size is subverted by the service system that was created to support this goal. Particularly when status differences are greatest, that is, with lower class and low caste clients, transmission of information is inhibited.

Key words: family planning; mystery client; user's perspective; Nepal.

Simmons, R.; L. Baqee; M. Koenig and J. Phillips. 1988. "Beyond supply: The importance of female family planning workers in rural Bangladesh." *Studies in Family Planning* 19(1): 29-33.

Using participant observation data on worker-client exchanges from Bangladesh, this article examines the interface between a government family planning program and the rural women it serves. Case material focuses first on the program function typically identified in the literature: meeting unmet demand for contraception by providing convenient supply. Functions that have been less recognized are then illustrated: (1) the worker's role in reducing fear of contraceptive technology; (2) her efforts to address religious barriers, child mortality risks, and high fertility preferences; and (3) her role in mobilizing male support. The range of functions performed by the female family planning worker in the cases discussed here dem-

onstrates that her role transcends the boundaries of what is conventionally implied by the concept of supply. She acts as an agent of change whose presence helps to shift reproductive decision-making away from passivity, exposing women long secluded by the tradition of purdah to the modern notion of deliberate choice.

Key words: family planning; community health workers; participant observation; Bangladesh.

Walton, S. M.; H. Gregory and G. Cosbie-Ross. 1988. "Family planning counseling in an antenatal clinic." *British Journal of Family Planning* 13(4): 136-9.

Family planning counseling relies on opportunism of the service, maximal provision, and adequate retention of information by patients. These aspects were studied in an evaluation of counseling in an antenatal clinic in Cleveland. They were found to be more appropriate than the traditional post-natal counseling. A significant proportion of women felt the advice was helpful in determining their eventual method of contraception. This was more noticeable in the under 20 age group.

Key words: family planning; antenatal clinics; evaluation; counseling.

